Order on

Approval of Business Plan and Multi Year Tariff Petition

For

Uttarakhand Power Corporation Ltd.

For

Fourth Control Period

(FY 2022-23 to FY 2024-25)

March 31, 2022

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Vidyut Niyamak Bhawan,

Near I.S.B.T., P.O. Majra, Dehradun – 248171

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Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No.: 47 of 2021

And

Petition No.: 48 of 2021

In the Matter of:

Petition filed by Uttarakhand Power Corporation Limited for approval of Business Plan for fourth Control Period from FY 2022-23 to FY 2024-25.

AND

In the Matter of:

Petition filed by Uttarakhand Power Corporation Limited for determination of ARR of fourth Control Period from FY 2022-23 to FY 2024-25 and Tariff for FY 2022-23.

AND

In the Matter of:

Uttarakhand Power Corporation Limited

Urja Bhawan, Kanwali Road, Dehradun ....Petitioner

Coram

Shri D.P. Gairola	**Member (Law) / Chairman (I/c)**
Shri M.K. Jain	**Member (Technical)**

Date of Order: March 31, 2022

Section 64(1) read with Section 61 and 62 of the Electricity Act, 2003 (hereinafter referred to as "the Act") requires the Generating Companies and the Licensees to file an application for determination of tariff before the Appropriate Commission in such manner and along with such fee as may be specified by the Appropriate Commission through Regulations.

In accordance with the relevant provisions of the Act, the Commission had notified

Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011 (hereinafter referred to as "UERC Tariff Regulations, 2011") for the first Control Period from FY 2013-14 to FY 2015-16, Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015 (hereinafter referred to as "UERC Tariff Regulations, 2015") for the second Control Period from FY 2016-17 to FY 2018-19 and Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2018 (hereinafter referred to as "UERC Tariff Regulations, 2018") for the third Control Period from FY 2019-20 to FY 2021-22 specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC.

The Commission had issued the Orders on approval of Business Plan and Multi Year Tariff for the above referred Control Periods from FY 2013-14 to FY 2021-22 based on the above referred Tariff Regulations and had also carried out the Annual Performance Review and truing up for the years under the three Control Periods.

Further, in accordance with the relevant provisions of the Act, the Commission had notified Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2021 (hereinafter referred to as "UERC Tariff Regulations, 2021") for the fourth Control Period from FY 2022-23 to FY 2024-25 specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC.

In compliance with the provisions of the Act and Regulation 8(1) and Regulation 10(1) of UERC Tariff Regulations, 2021, Uttarakhand Power Corporation Limited (hereinafter referred to as "UPCL" or "Licensee" or "Petitioner") filed separate Petitions for approval of its Business Plan for the fourth Control Period from FY 2022-23 to FY 2024-25 (Petition No. 47 of 2021, hereinafter referred to as the "Business Plan Petition") and Multi Year Tariff Petition (Petition No. 48 of 2021 hereinafter referred to as the "MYT Petition") on December 15, 2021. UPCL, in its Business Plan Petition, has submitted the Capital Investment Plan, Financing Plan, Human Resources Plan and trajectory of performance parameters for the fourth Control Period. Further, through the MYT Petition, UPCL has submitted the detailed calculations of its projected Aggregate Revenue Requirement for the fourth Control Period from FY 2022-23 to FY 2024-25 in accordance with the UERC Tariff Regulations, 2021. Through the MYT Petition, the Petitioner has also requested for true up of FY 2020-21 based on the audited accounts in accordance with UERC Tariff Regulations, 2018.

Based on the submission made by UPCL, the Commission vide its Order dated December 21, 2021 provisionally admitted the Business Plan Petition and MYT Petition for further processing, with the condition that UPCL shall furnish any further information/ clarifications as deemed necessary by the Commission during the processing of the Petition within the time frame, as may be stipulated by the Commission, failing which the Commission may proceed to dispose of the matter as it deems fit based on the information available with it.

The Business Plan Petition filed by UPCL had certain infirmities/deficiencies which were informed to UPCL vide Commission's letter no. UERC/6/TF-635/2021-22/2021/973 dated December 27, 2021 and UPCL was directed to rectify the said infirmities in the Petition and submit certain additional information necessary for admission of the Business Plan Petition. UPCL vide its letter no. 188/UPCL/RM/B-25 dated January 11, 2022 and letter no. 440/UPCL/RM/B-25 dated January 31, 2022 submitted most of the information sought by the Commission.

Further, the MYT Petition filed by UPCL also had certain infirmities/deficiencies. The Commission, accordingly, vide its letter no. UERC/6/TF-633/2021-22/2021/974 dated December 27, 2021 directed UPCL to rectify these infirmities/deficiencies and to submit certain additional information necessary for admission of the MYT Petition. UPCL vide its letter no. 189/UPCL/RM/B-25 dated January 11, 2022 and letter no. 440/UPCL/RM/B-25 dated January 31, 2022 submitted most of the information sought by the Commission.

This Order, accordingly, relates to the Business Plan Petition and the MYT Petition filed by UPCL for approval of the Business Plan and determination of Aggregate Revenue Requirement (ARR) for the fourth Control Period from FY 2022-23 to FY 2024-25 and Tariff for FY 2022-23 as well as true up for FY 2020-21 and Annual Performance Review for FY 2021-22, and is based on the original as well as subsequent submissions made by UPCL during the course of the proceedings.

Tariff determination being the most vital function of the Commission, it has been the practice of the Commission to elaborate in detail the procedure and to explain the underlying principles in determination of tariffs. Accordingly, in the present Order also, in line with the past practices, the Commission has tried to elaborate the procedure and principles followed by it in determining the ARR of the licensee. For the sake of convenience and clarity, this Order has further been divided into following Chapters:

Chapter 1 - Background and Procedural History.

Chapter 2 - Stakeholders' Objections/suggestions, Petitioner's Responses & Commission's Views.

Chapter 3- Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Business Plan for fourth Control Period.

Chapter 4 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2020-21.

Chapter 5 – Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2021-22 and ARR for fourth Control Period of FY 2022-23 to FY 2024-25.

Chapter 6 - Tariff Rationalisation, Tariff Design and related issues.

Chapter 7 - Review of Commercial Performance of UPCL.

Chapter 8 - Commission's Directives.

1. Background and Procedural History

In accordance with the provisions of the Uttar Pradesh Reorganization Act 2000 (Act 29 of 2000), enacted by the Parliament of India on August 25, 2000, the State of Uttaranchal came into existence on November 9, 2000. Section 63(4) of the above Reorganization Act allowed the Government of Uttaranchal (hereinafter referred to as "GoU" or "State Government") to constitute a State Power Corporation at any time after the creation of the State. GoU, accordingly, established the Uttaranchal Power Corporation Limited (UPCL) under the Companies Act, 1956, on February 12, 2001 and entrusted it with the business of transmission and distribution in the State. Subsequently, from April 1, 2001, all works pertaining to the transmission, distribution and retail supply of electricity in the area of Uttaranchal were transferred from UPPCL to UPCL, in accordance with the Memorandum of Understanding dated March 13, 2001, signed between the Governments of Uttaranchal and Uttar Pradesh. On May 31, 2004, GoU first vested all the interests, rights and liabilities related to Power Transmission and Load Despatch of "Uttaranchal Power Corporation Limited" into itself and, thereafter, re-vested them into a new company, i.e., "Power Transmission Corporation of Uttaranchal Limited", now renamed as "Power Transmission Corporation of Uttarakhand Limited" after change of name of the State. Since then, Uttarakhand Power Corporation Ltd. (UPCL) a company wholly owned by the Government of Uttarakhand became the sole distribution licensee engaged in the business of distribution and retail supply of power in the State of Uttarakhand.

The Commission vide its Order dated May 6, 2013 issued the Order on approval of Business Plan for UPCL for the first Control Period from FY 2013-14 to FY 2015-16 and Tariff for FY 2013-14. Further, the Commission had issued the Tariff Orders for FY 2014-15 and FY 2015-16 vide its Orders dated April 10, 2014 and April 11, 2015 respectively.

The Commission vide its Order dated April 5, 2016 issued the Order on approval of Business Plan for UPCL for the second Control Period from FY 2016-17 to FY 2018-19 and Tariff for FY 2016-17. Further, the Commission had issued the Tariff Orders for FY 2017-18 and FY 2018-19 vide its Orders dated March 29, 2017 and March 21, 2018 respectively.

The Commission, thereafter, vide its Order dated February 27, 2019 issued the Order on approval of Business Plan for UPCL for the third Control Period from FY 2019-20 to FY 2021-22 and

Tariff for FY 2019-20. Further, the Commission had issued the Tariff Order for FY 2020-21 and FY 2021-22 vide its Order dated April 18, 2020 and April 26, 2021 respectively.

As mentioned earlier also, in accordance with the provisions of the Electricity Act, 2003 and Regulation 8(1) and Regulation 10(1) of the UERC Tariff Regulations, 2021, UPCL was required to submit Business Plan Petition and MYT Petition for determination of its ARR by November 30,2021. UPCL in compliance to the Regulations submitted the Business Plan Petition and MYT Petition for determination of ARR for the fourth Control Period from FY 2022-23 to FY 2024-25 and Tariff for FY 2022-23 along with the True up for FY 2020-21 on December 15, 2021.

The Business Plan Petition and MYT Petition were provisionally admitted by the Commission vide two separate Orders dated December 21, 2021 respectively. The Commission, through its above Admittance Orders dated December 21, 2021, to provide transparency to the process of tariff determination and give all the stakeholders an opportunity to submit their objections/suggestions/comments on the proposals of the Distribution Licensee, also directed UPCL to publish the salient points of its Petitions in the leading newspapers. The salient points of the Petitions were published by the Petitioner in the following newspapers:

Table 1.1: Publication of Notice

S.No.	Newspaper Name	Date of Publication
1.	Amar Ujala	24.12.2021
2.	Dainik Jagran	24.12.2021
3.	The Times of India	25.12.2021
4.	The Hindustan Times	25.12.2021

Through above notice, the stakeholders were requested to submit their objections/ suggestions/comments latest by 31.01.2022 (copy of the notice is enclosed as **Annexure 3**). The Commission received in all 42 objections/suggestions/comments in writing on the Petition filed by UPCL. The list of stakeholders who have submitted their objections/ suggestions/comments in writing is enclosed as **Annexure-4**.

Further, for direct interaction with all the stakeholders and public at large, the Commission also held public hearings on the proposals filed by the Petitioner at the following places in the State of Uttarakhand.

Table 1.2: Schedule of Hearings

S. No	Place	Date
1.	Ranikhet	February 26, 2022
2.	Rudrapur	February 27, 2022
3.	Dehradun	March 02, 2022
4.	Kotdwar	March 08, 2022

The list of participants who attended the Public Hearing is enclosed at **Annexure-5**.

The Commission also sent the copies of salient features of tariff petitions to Members of the State Advisory Committee and the State Government. The salient features of the tariff Petitions submitted by UPCL were also made available on the website of the Commission, i.e. www.uerc.gov.in. The Commission also held a meeting with the Members of the Advisory Committee on March 09, 2022, wherein, detailed deliberations were held with the Members of the Advisory Committee on the various issues linked with the Petition filed by UPCL.

The objections/suggestions/comments, as received from the stakeholders through mail/ post as well as during the course of public hearing were sent to the Petitioner for its response. All the issues raised by the stakeholders and Petitioner's response and Commission's views thereon are detailed in Chapter 2 of this Order. In this context, it is also to underline that while finalizing this Order, the Commission has, as far as possible, tried to address the issues raised by the stakeholders.

Meanwhile, based on the scrutiny of the Petition submitted by UPCL, the Commission vide its letter no. UERC/6/TF-635/2021-22/2021/973 dated December 27, 2021, letter no. UERC/6/TF-633/2021-22/2021/974 dated December 27, 2021, letter no. UERC/6/TF-633/2021-22/2022/1198 dated February 09, 2022, letter no. UERC/6/TF-633/2021-22/2022/1208 dated February 15, 2022 and letter no. UERC/6/TF-633/2021-22/2022/1249 dated February 22, 2022 and further discussion with the officers of the utility, pointed out certain data gaps in the Petitions and sought following additional information/clarifications from the Petitioner:

Business Plan Petition

- Revised format after inter-linking the same within various forms of the Formats.
- Confirm that the Capital Investment Plan submitted is in conformity with the perspective plan made by the STU.
- Supporting documents including commitment of State Government for equity contribution, if

any, and Lender's Commitment, cost/benefit analysis, alternatives considered etc.

- Existing and projected Wires Availability as well as Supply Availability for the Control Period.
- Category wise monthly load shedding carried out in FY 2020-21 and for the first half of FY 2021-22.
- Submit whether the Petitioner has entered into any agreement or signed any MoU for power procurement from upcoming stations along with a copy of such agreement/MoU.
- Present status of actual number of unelectrified households.
- Submit details of Distribution losses & Employee Addition as per Formats.
- Monthly estimate of the power availability to meet Base load and peak load requirement for the fourth Control Period.
- Detailed justification for projecting procurement of short term power during the fourth Control Period.

<u>MYT Petition</u>

- Resubmit all the Formats using formulae and appropriately link the same to the relevant formats for ensuring consistency and accuracy of the data submitted.
- Justify the proposed tariff hike in terms of reduction of cross-subsidy between various consumer categories, in accordance with the provisions of the EA, 2003, Tariff Policy and previous Orders of the Commission.
- Submit table indicating the existing and proposed category wise cross subsidy, in view of the proposed tariff revision.
- Detailed Scheme wise Gross Additions during FY 2020-21.
- With respect to the CAPEX proposed under new RDSS Scheme, submit the current compliance to the eligibility criteria and in case of any shortcomings, how UPCL plans to meet the same.
- Audited Commercial Diary and COMDATA for FY 2020-21.
- Audited Statements of accounts and monthly trial balances for FY 2020-21.

- Details of Bad Debts written off by it.
- Submit the actual Employee Expenses, A&G Expenses, and R&M Expenses for the period April 2021 to December 2021.
- Monthly trial balances for the period April 2021 to December 2021.
- Submit the breakup of the proposed works towards capitalization amount of Rs. 56.29 Crore for FY 2021-22.
- Submit all the relevant information along with the supporting documents for substantiating the actual expenses incurred on account of Water Tax, for True up for FY 2020- 21.
- Segregate the additions of fixed assets into HT & LT works and submit the Clearance from the Electrical Inspector for capitalisation of various HT/EHT schemes for FY 2020-21.
- Submit all pending Electrical Inspector certificates in support of gross additional capitalization till FY 2020-21.
- Voltage wise cost of supply for FY 2020-21 and the cross subsidy w.r.t. voltage wise cost of supply.
- Submit the nos. of employees recruited and retired during FY 2020-21.
- Submit the basis as to how the impact of VII Pay Commission has been worked out in FY 2020-21.
- Provide basis and computations on calculating Interest on Consumer Security Deposit on accrual basis.
- Provide all the contracts for additional provisioning claimed under A&G expenses.
- Submit justification for claiming Equity in excess of 30% and also the revised funding as per the provisions of UERC Tariff Regulations, 2021.
- Under Smart Metering OPEX, UPCL has submitted that it has assumed Rs.80 per consumer per meter as rent + GST for a period of 7 years. UPCL to submit the basis for such projections.
- Current Status and agreements/basis for considering power from Bazpur Nandehi project should be submitted.

So as to have better clarity on the data submitted by the Petitioner and to remove inconsistency in the data, a Technical Validation Session (TVS) was also held with the Petitioner's officers on January 21, 2022, for further deliberations on certain issues related to the Petition filed by UPCL. Minutes of above Technical Validation Session were sent to the Petitioner vide Commission's letter no. UERC/6/TF-633/2021-22/2022/1127 dated January 24, 2022, for its response.

The Petitioner submitted the replies to data gaps vide its letter no. 188/UPCL/RM/B-25 dated January 11, 2022, letter no. 189/UPCL/RM/B-25 dated January 11, 2022, letter no. 648/ UPCL/RM/B-25 dated February 17, 2022, letter no. 203/UPCL/RM/B-25 dated March 03, 2022 respectively. The Petitioner submitted the replies to the data gaps and clarifications sought during TVS vide its letter no. 440/UPCL/RM/B-25 dated January 31, 2022. The submissions made by UPCL in the Petition as well as additional submissions have been discussed by the Commission at appropriate places in the Order along with the Commission's views on the same.

2. Stakeholders'Objections/suggestions, Petitioner's Responses & Commission's Views

The Commission has received suggestions and objections on UPCL's Petition for True up for FY 2020-21, Annual Performance Review for FY 2021-22, Approval of Business Plan for Fourth Control Period from FY 2022-23 to FY 2024-25 and Approval of Annual Revenue Requirement and Tariff for FY 2022-23. The Commission also obtained responses from UPCL on the comments received from the stakeholders.

For the sake of clarity, the objections raised by the stakeholders and responses of the Petitioner have been consolidated and summarized issue-wise. In the subsequent Chapters of this Order, the Commission has kept in view the suggestions/objections/comments of the stakeholders and replies of the Petitioner while deciding the ARR for UPCL.

2.1 Overall Tariff Increase

2.1.1 *Stakeholder's Comments*

Shri R. K. Singh of Tata Motors Ltd., Shri Kartikey Tomar of M/s PSR Innovations & Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that the proposed tariff hike of 6.02% is not favourable for Industries and no tariff hike should be made for FY 2022-23.

Shri Ram Kumar Agarwal of Umashakti Steels Pvt. Ltd submitted that the proposed hike in energy charges should be avoided.

Shri P.R Bhasin, Shri Atul Bhatt, Shri Ripudaman Singh Bisht, Shri Mahendra Singh Negi, Shri S.P. Chauhan, Shri S.K. Agrawal & Shri Rajendra Kumar Chaudhary submitted that the proposed hike for Domestic consumers should be avoided. They further submitted that Uttarakhand being the hydro dominant State can provide electricity at cheaper rate.

With respect to proposed tariff hike in RTS-4A category various stakeholders submitted that it should be avoided and requested the Commission to reconsider the proposed tariff hike in this category as due to ongoing pandemic mushroom production has been adversely affected.

Shri Sunil Kumar Gupta of Teesri Aankh ka Tehalka submitted that at this stage the tariff rates should not be increased.

Shri Man Singh of M/s ALPS Industries Ltd., Shri Harindra K. Garg of SIDCUL Manufacturers Association of Uttarakhand, Shri Sukkha Singh Virk and Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that UPCL have proposed 5.7% hike in tariff for Industrial consumers, which is a very huge blow for industries. Therefore, they requested the Commission not to increase electricity tariff for the sake of industry and society.

Shri Teeka Singh Saini of Bharatiya Kisan Union submitted that increase in tariff of Private Tube wells should be discouraged as the farmers are finding it difficult to pay such huge amount of bills.

Shri Shakeel A. Siddiqui of M/s Kashi Vishwanath Textile Mill (P) Ltd. and Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that due to Covid-19, which has slowed the developmental progress, stakeholders have been adversely affected and, hence, a tariff hike for HT consumers is unjustified. Hence, they requested the Commission to evaluate the ARR submitted by UPCL in such a way so as to control the expenses and reduce any increase in the current year tariff.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that the industry is burdened and fighting to pay its statutory dues, financial obligations and other liabilities and in this scenario tariff increase will only be addition to its trauma. He further submitted that due to Covid-19, which has slowed the developmental progress, stakeholders are adversely affected and, hence, a tariff hike is not in the interest of the State. Hence, the Commission should not permit any increase in the current year tariff.

2.1.2 *Petitioner's Reply*

The Petitioner submitted that UPCL is a commercial organization and is required to meet its Annual Revenue Requirement out of the revenue realized from the consumers through electricity tariffs. The consolidated revenue deficit for FY 2022-23 (including the carrying cost of FY 2020-21) at existing tariff has been estimated at Rs. 447.56 Crore. For recovery of the said gap of Rs. 447.56 Crore, UPCL has proposed an overall tariff hike of 6.02%. UPCL submitted that as against the average tariff hike of 6.02%, no tariff hike for BPL & PTW consumer, nominal hike of 2.5% for 0-100 slab in other Domestic Category, average hike of 5-6% in other slabs of other Domestic category, average hike of 6.4% in non-domestic category, average hike of 5.0% in LT Industrial category, average hike of 5.7% in HT Industrial category is proposed and further submitted that increase in all other categories has been proposed in line with the Tariff Policy and the Proposed ARR to be recovered in FY 2022-23.

The revenue gap so computed is the result of difference between increased / projected cost and revenue at existing tariff. The Petitioner being a regulated entity needs to be revenue neutral and hence, the approved gap will have to be allowed in terms of tariff increase as per the principles laid down in Tariff Policy and the approach adopted by the Commission in past.

The Petitioner also submitted that the tariff of RTS - 4A category (Rs. 3.03. p.u.) has been proposed only at 50% of Average Cost of Supply (Rs. 6.06 p.u.).

2.1.3 *Commission's Views*

The Commission is of the view that an overall tariff increase is a function of projected Annual Revenue Requirement for the ensuing year (including impact of truing up of expenses and revenue for previous year) and projected revenue at existing tariffs. The Commission has carried out the detailed scrutiny of ARR for FY 2022-23 and truing up for FY 2020-21 in accordance with the provisions of the relevant Regulations as discussed in subsequent Chapters of this Order and as an outcome of scrutiny, the Commission has approved an overall tariff increase of around 2.68% as discussed in Chapter 6 of this Order. Further, most of the stakeholders have submitted that Uttarakhand being a hydro rich State, no tariff increase should be allowed. In this regard it would be relevant to mention that only 35-40% of UPCL's requirement is being met from power generated from UJVN Ltd. Balance requirement is met through procurement of power from thermal and other sources which are costlier and their prices vary which necessitates increase in cost for UPCL and in turn tariff hike.

2.2 Tariff Hike – Industrial Tariff

2.2.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that the revenue shortfall of UPCL is due to the load shedding on Industrial consumers and in other States, the rostering of Industrial consumers is done as a last resort to maintain grid balance.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that the three charges, namely, Green Cess, Electricity Duty and royalty on water, which are levied on electricity, directly and indirectly affects the tariff and makes electricity costlier by Re. 1/ unit. Therefore, the stakeholder suggested that the State Government reduces its charges to make tariff economical to some extent.

Shri Sanjay Kumar of M/s Ambashakti Glass Pvt. Ltd submitted that electricity duty @ 0.50 per unit should be in GST category as well as other services and sales (except some alcoholic and petroleum products) have been considered under GST categories this should also be under GST categories and its input benefit should be shown in the sales.

2.2.2 *Petitioner's Reply*

The Petitioner submitted that in truing–up exercise for FY 2020-21, UPCL proposed deficit of revenue amounting to Rs. 142.47 Crore. which has been added in the ARR for FY 2022-23 along with the carrying cost. This true-up has been prepared based on the Audited Accounts and as per provisions of UERC Tariff Regulation, 2018/2021. As regards availability of quality power, it is to inform that UPCL has been making consistent efforts to provide uninterrupted power supply to its consumers. The load shedding during FY 2020-21 is only 0.12% of the overall energy demand (16.56 MU). Further load shedding for FY 2021-22 is 49.89 MU and UPCL has been making consistent efforts to provide uninterrupted power supply to its consumers. It is also to mention that no scheduled power cuts are being imposed and rostering is being done only due to emergency breakdown / shutdown.

The Petitioner submitted that as per Section 3 of Uttar Pradesh Electricity (Duty) Act (Uttarakhand adaptation and modification) Order, 2001, the State Government is empowered to fix the rates of Electricity Duty to be charged from various categories of consumers. Government of Uttarakhand vide its Notification No. 79/I/2016-01(3)/01/2003 dated 25.01.2016 has fixed these rates applicable w.e.f. 01.01.2016. UPCL is charging Electricity Duty as per Government orders. The Electricity Duty charged from consumers is payable by UPCL to GoU. Therefore, the matter may be taken up with GoU.

The Petitioner further submitted that as per Section 4 of the Uttarakhand Green Energy Cess Act, 2014, Green Energy Cess upto 10 paise per unit shall be levied on the electricity supplied to Commercial and Industrial Consumers of the State. This Cess will be levied, collected and payable by UPCL.

As per GoU notification dated 17.06.2015, rate of Cess has been determined @ 10 paise per unit. Therefore, the matter may be taken up with GoU.

The Cess and Royalty is imposed on the saleable energy generated from the existing hydro power projects of r UJVN Limited, which are under Commercial Operation for more than 10 years and whose cost of electricity generation is not more than Rs. 2 per unit. The rate of Cess and Royalty is Rs. 0.30 per unit and Rs. 0.10 per unit, respectively. The cess and royalty are imposed by UJVNL in its electricity bills, which is to be paid by UPCL. Finally, the amount of cess and royalty is payable to GoU by the collecting agency.

The Water Tax is levied to avail the facility to draw water from any sources for generation of electricity in Uttarakhand under the provisions of the Uttarakhand Water Tax on Electricity Generation Act, 2012. The water tax is imposed by UJVNL in its electricity bills, which to be paid by UPCL. Finally, the amount of water tax is payable to GoU by the collecting agency. Therefore, the matter may be taken up with GoU.

2.2.3 *Commission's Views*

The Commission is of the view that the overall tariff increase is a function of projected Annual Revenue Requirement for the ensuing year (including impact of truing up of expenses and revenue for previous year) and projected revenue at existing tariffs. The Commission has carried out the detailed scrutiny of ARR for FY 2022-23 and truing up for FY 2020-21 in accordance with the provisions of the relevant Regulations as discussed in subsequent Chapters of this Order and as an outcome of the scrutiny, the Commission has approved an average tariff increase of 2.68% as discussed in Chapter 6 of this Order.

Issues raised by stakeholders with regards to charging of Electricity Duty, Energy Cess and Royalty on Water are not under the jurisdiction of this Commission and the consumers may approach the State Government for any relief.

2.3 Proposed Rate Schedule for FY 2022-23

2.3.1 *Stakeholder's Comments*

Shri R. K. Singh of Tata Motors Ltd. requested the Commission to direct UPCL for categorizing 220 kV consumers separately from "132 kV consumers and above category" to felicitate lower demand and higher voltage supply rebate as UPCL's energy charges and voltage supply rebates is common for both 132 kV & 220 kV level.

2.3.2 *Petitioner's Reply*

The Petitioner submitted that at present, voltage wise / category wise losses are not available and Category Wise Tariff has been calculated on the basis of average cost of supply and permissible level of cross subsidy. This is as per Regulation 91 of the UERC Tariff Regulations, 2021. In the absence of availability of voltage wise losses, which is mix of technical losses and commercial losses, the distribution losses are required to be charged on average basis from all category of consumers as well as open access consumers. Further, considering the fact that losses at higher voltage are on lower side, rebate in energy charge @ 2.5 % to the consumers getting supply at 33 kV and 7.5% to the consumers getting supply at 132 kV and above has been provided by the Commission. In such a situation, it does not seem appropriate to further segregate voltage level for the purpose of providing rebate. However, if Commission decides to provide the benefit of higher voltage supply rebate to the consumers; the impact of the same may be considered in ARR to ensure revenue neutrality for UPCL.

2.3.3 *Commission's Views*

The Commission has taken note of the concerns raised by the stakeholders and UPCL. The Commission has dealt with the issue in detail in Chapter 6 of this Order.

2.4 Distribution Loss

2.4.1 *Stakeholder's Comments*

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that the Petitioner has not been following directions of the Commission in respect of carrying out Energy Audit and has never come out with energy Audit.

Shri Pankaj Gupta of Industries Association of Uttarakhand and Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry requested the Commission to direct UPCL to conduct energy audit at Sub-station level and at various voltage levels to determine the actual reasons for the losses so that further action can be taken to bring down the losses to the level below that directed by the Commission. He further submitted that the percentage of sale of power to industrial consumers has gone up from 40% to 55% and, therefore, loss levels should be much less. He also submitted that the overall losses that have been set by the Commission may have been much lesser.

Shri Pankaj Gupta of Industries Association of Uttarakhand requested the Commission to direct UPCL to submit data of ABR – Average Billing Rate division wise. Further, if in any division, average billing rate is less than average of all divisions then energy audit of such division must be carried out to arrive at actual figures of energy sales.

Shri Pankaj Gupta of Industries Association of Uttarakhand and Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that the Commission is empowered to investigate under Section 128 of Electricity Act. He further suggested that for investigating losses and energy audit, the Commission should appoint an agency for carrying out this investigation. If HT consumers are consuming more than 50% energy, whose losses should not be more than 5-6%. Accordingly, the losses in other categories are more than 45%. He further submitted that such differential loss is a reason enough for proper investigation. For UPCL to function properly controlling losses is the most important issue. The stakeholders also suggested that UPCL should convert their sub-stations into Cost-Centres and any Sub-station found to be losing money should be subjected to penalties.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that distribution losses need to be assessed according to the study conducted by UPCL and in absence of any exercise conducted by UPCL, the Commission may determine distribution losses as per States where they have been made applicable and, accordingly, apply the same for different category consumers separately and decide the tariff accordingly. For 33 kV, the rebate should be 7.5% and for 132 kV it should be @ 12%. He further submitted that the Commission should provide a long-term trajectory for loss reduction and ensure that the DISCOMs follow the trajectory. He further added that common regulation also needed to be brought in to curtail the losses of DISCOMs.

Shri S.K. Agrawal submitted that due to the far-sightedness and carelessness of UPCL, the line losses are at the highest level, the burden of which also falls on the consumers.

Shri B.K Joshi submitted that investigation of each consumer to be carried out and line losses to be brought down to zero.

2.4.2 *Petitioner's Reply*

The Petitioner submitted that the distribution loss for the FY 2020-21 for UPCL is 13.96% against the approved loss of 14.00% and it is striving hard to reduce the distribution losses as evident from distribution loss over the past 3 years where the loss has been reducing continuously (13.40% for FY 2019-20, 14.32% for FY 2018-19, 15.17% for FY 2017-18 and 16.68% for FY 2016-17).

The Petitioner further submitted that during the period FY 2016-17 to FY 2020-21, the sales contribution from HT consumers has been almost at similar levels (~ 51%) and it is striving hard to contain the losses within the levels approved by the Commission. The Petitioner further submitted that the following actions are being taken for reduction of distribution losses:

- Vigilance raids are being conducted and cases are being registered under Section 126 and 135 of Electricity Act, 2003. Legal proceedings are being initiated against the person(s) found indulging in theft of electricity.
- Mechanical meters are being replaced by electronic meters.
- Defective Meters are being replaced.
- LT ABC is being laid in theft prone areas.
- Automatic Meter Reading is being done for high value consumers.
- Android based billing has been introduced for improvement in Billing Efficiency.

Further, in addition to this, the Petitioner submitted that a Reforms – based and Results linked, Revamped Distribution Sector Scheme as approved by Government of India vide its notification dated 20-07-2021 is under consideration to be implemented in UPCL. Under part – A of the scheme, prepaid smart metering for consumers, and system metering at feeder and distribution transformer level with communicating feature along with associated Advanced Metering Infrastructure (AMI) will be done to facilitate reduction of distribution losses and enable automatic measurement of energy flows and energy accounting as well as auditing.

The Petitioner further submitted that it is participating under Central Govt. funded Scheme of Revamped Reforms Distribution Sector Scheme (RDSS) where in Smart Meters are being proposed in loss making and other areas as per guidelines stipulated in scheme. Also, capital expenditure amounting to Rs. 2,414 Crore will be spent in next 3 years for loss reduction activities.

With regards to submission of division-wise Average Billing Rate, the Petitioner submitted that the detailed reply to the query has been submitted to the Commission vide letter no. 440/UPCL/RM/B-25 dated 01.02.2022.

The Petitioner submitted that it had conducted Meter data (MRI) check from external agency for the period from May 2019 to August 2020 and Nov 2020 to Aug 2021 for 43 Divisions and the total realized amount from such cases was Rs. 6.25 Crore against assessed amount of Rs. 9.48 Crore Based on above findings of the report, UPCL is taking corrective action to recover such arrears and is expected to streamline its overall energy accounting in coming period by having proper metering facilities with communication and/proper metering and reading of the consumption. The Petitioner submitted that arrears/ receivables after such exercise will have to be written off as per the Policy for Bad debt approved by the Commission to reflect the true picture of financial position of the Petitioner.

The Petitioner submitted that it has also done Audit of high loss division with 2-pronged approach – i) to audit the receivables and ii) to have proper billing to such consumers for future period. This will ensure that fictitious receivables / arrears would be identified and commercial losses are brought down by proper billing. The audit for such high loss divisions for non-Government consumers revealed that around 17300 consumers were reported with dues as on 31.3.2020 where no payment was received and no billing was done after 1.4.2009. The amount outstanding from such consumers was Rs. 36.82 Crore. Further there were 1277 no. of cases where outstanding dues were NIL as on 31.3.2020, supply was made but no billing and collection has happened since 2009 till Sep 2020.

With regard to Consumer Audit, UPCL had also undertaken audit of 100 consumers of Dehradun division whereby total arrears amount was Rs. 1.74 Crore, however, recoverable amount was only Rs. 0.18 Crore, the balance Rs. 0.99 Crore was fictitious arrears & Rs. 0.56 Crore was to be written off. UPCL submitted that it is taking concerted efforts to reconcile such accounts and ensure higher recovery of the pending arrears. Moving forward positively on such audits/ checks, UPCL has planned to undertake checks of 200 consumers on monthly basis from 27 divisions each of plain areas. Based on above findings of the report, UPCL is taking corrective action and expected to write-off fictitious receivables/arrears after due process is followed/ approval is taken from management.

2.4.3 *Commission's Views*

The Commission has taken note of the concerns raised by the stakeholders and the initiatives taken by UPCL for reducing the losses. The Commission would like to clarify that the distribution losses submitted by the Petitioner is almost similar to the losses approved by the Commission in the MYT Tariff Order for the control period from 2019-20 to FY 2021-22. However, the Commission approves the actual losses as per the actual data submitted by the Petitioner and the re-casted sales and the same has been discussed in Chapter 3 and 4 of the Order. The Commission would also like to point out on the concurrent audit referred to the Petitioner. In the past also the Commission had pointed out that the same was not energy audit but billing/sales audit. No report on energy audit has been submitted by the Petitioner despite categorical directions of the Commission.

2.5 Power Procurement Plan

2.5.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that Power purchase expenses are very closely related to Transmission and Distribution Losses. If these losses will be less, it will result in less purchase of energy for same level of consumption.

He also submitted that UPCL should always endeavour to have long-term power purchase agreement, as purchase from Power Exchange is accompanied with heavy transmission charges of PGCIL.

Shri Pankaj Gupta of Industries Association of Uttarakhand further submitted that UPCL in the same time block on numerous occasions has underdrawn power and at the same time bought short term power, keeping this in view creation of an exclusive Power purchase cell, headed by an officer of Director level can help UPCL to control their power purchase expenses. This cell would be using the latest technology in terms of data analytics to arrive at the best possible power purchase model in order to lower the power purchase cost and have the most reliable power available at all times.

Shri Vijay Singh Verma has submitted that power should be procured from the cheaper source of energy so as to diminish overall tariff burden of consumers. If and when demand supply gap occurs with adverse effect on distribution business, load shedding can be carried out in certain hours in a day.

Shri Sunil Kumar Gupta of Teesri Aankh ka Tehalka submitted that the power purchase cost from gas-based stations is very high and UPCL should re-negotiate the PPAs with Gas based IPPs.

Shri R. K. Singh of Tata Motors Ltd. submitted that UPCL need to explore opportunities to purchase power from renewable energy sources & should be less dependent on open market purchase or coal based thermal power plants. In FY 2021-22 it was observed that there was global shortage of coal & consequently Open market prices were too high and utilities like UPCL were not able to purchase power from open market & load shedding was inevitable. He, therefore, requested the Commission that in such a scenario where load shedding is inevitable for UPCL, it should declare scheduled rostering so that consumer can go for smooth changeover or plan for alternate power resource during rostering period.

2.5.2 *Petitioner's Reply*

The Petitioner submitted that it plans to procure power from firm sources (after evaluating best options), short-term purchase and the remaining (shortfall if any) on day ahead basis through IEX purchase. Further, procurement of power from firm sources other than tied up sources would help UPCL realize optimum per unit power purchase cost (as fixed charges would be spread out over the maximum quantum of energy procured). It further submitted that it may be relevant to emphasize that the short-term power purchase cost is on a downward trend since FY 2019-20. On comparison of variable charges, the costly power of the coal and gas-based plants is being replaced with the cheaper power available in the market/Exchange. Further, in addition to this, the Petitioner also submitted that it has not scheduled costly gas power from the period of October to March in FY 2020-21.

The Petitioner submitted that UPCL strives hard to maintain the distribution losses to the levels approved by the Commission. There is a continuous reduction in distribution losses in last years. However, the reason for increase in distribution losses in FY 2020-21 is that due to COVID-19, the sales of HT industry reduced by 11%.

With respect to creation of Power purchase cell, the Petitioner has already submitted its response in MYT petition for FY 2022-23 to FY 2024-25 in Para 34 of the Compliance Status. The Petitioner also submitted that it has been planning to procure direct membership to enable for direct trading facilities that will help UPCL to reduce the impacts of Trading margins. This would assist in taking real-time decision to reduce deviations and / optimize power purchase / sale through open market. In addition to this the Petitioner submitted that it has a dedicated team looking after the power purchase.

Further, UPCL is also proposing capital expenditure of Rs. 10 Crore in FY 2022-23 for Software Development (Automated Demand response management system) which is expected to be capitalised in FY 2023-24. Maintenance Cost after capitalisation from 2nd year onwards would be Rs. 3 Crore/ year. UPCL submitted that it would be in a better position to manage demand and monitor its load of sub-stations etc. on real-time basis and also control the same. The estimate may change further on initiation of process of EOI/ Tendering including timelines.

The Petitioner submitted that the major part of the ARR pertains to the Power purchase cost and submitted that due actions are being taken to source cheaper power. Further, the grid demand varies across the seasons as well as on daily basis, and UPCL plans for the power procurement based upon the availability of the generating stations as well as the cost of power from the generator. UPCL further submitted that owing to mismatch in demand and supply in real time owing to consumption pattern of the consumer, UPCL has to purchase power from short-term sources as well.

The Petitioner submitted that with regard to the availability of quality power, UPCL has been making consistent efforts to provide uninterrupted power supply to its consumers. The load shedding during FY 2020-21 is only 0.12% of the overall energy demand (16.56 MU). Further load shedding for FY 2021-22 is 49.89 MU and UPCL has been making consistent efforts to provide uninterrupted power supply to its consumers. Further, no scheduled power cuts are being imposed and rostering is being done only due to emergency breakdown / shutdown.

2.5.3 *Commission's Views*

The Commission has noted the comments and suggestions of the stakeholders. The issues related to source-wise power purchase quantum and costs have been deliberated by the Commission in Chapter 3, 4 & 5 of this Order.

As regards the gas based IPPs, the Commission has approved the Power Purchase Agreements considering the shortage of power in the State and decision of the Government of

Uttarakhand and UPCL's proposal in this regard. In addition to having gas-based power, UPCL has to procure short term power to meet the requirement. There are numerous Judgments of Higher Courts which says that PPA once approved cannot be rescinded unless there is an event of default.

2.6 RPO Status and compliance

2.6.1 *Stakeholder's Comments*

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that Distribution Licensees now have the option to fulfil their RPO obligations by procuring RE power from short term market through Green-DAM and Green-TAM products available at IEX platform.

Shri Jogendra Behera of Indian Energy Exchange submitted that Green-Term Ahead Market & Green-Day Ahead Market has been introduced in which the Solar and Non-Solar Renewable Energy is being transacted and, hence, the Discoms can meet their RPO obligations by procuring power through Green-DAM and Green-TAM products available at IEX platform. He further submitted that GDAM and GTAM provide alternate market-based route to the RE generators to sell their green power and for the buyers to fulfil their RPO at competitive price with flexibility of entry and exit in the market.

Shri Jogendra Behera of Indian Energy Exchange further submitted that the Government of India alluded to the imminent growth of short-term market in the draft National Electricity Policy document issued in 2021. Several measures have been taken to achieve such objectives and a key among them is the resolution on introduction of long duration contracts at the power exchanges. While hitherto, the short-term procurement beyond 11 days of contract could be done by the Discoms through the trader/DEEP only, he submitted that IEX is in the process of introducing longer duration contacts for delivery of power beyond 11 days at the exchange platform. These contracts will ensure delivery of non-conventional and conventional power beyond 11 days of trade for upto 1 year. As on date, the approval is pending before the CERC. In view of the above, he requested the Commission to consider and approve all the available options in the short-term market for optimising power purchase costs as well as to meet the deficit requirements of the Discoms.

2.6.2 *Petitioner's Reply*

The Petitioner with respect to fulfilment of the RPO submitted that the State has a peculiar demand supply position owing to large amount of hydro capacity in its power portfolio. Over the years, the quantum of non-solar RPO met has exceeded the annual targets and the same is apparent from the recommendation of the Commission for Non-Solar REC accreditation vide letter dated 10.09.2020.

The Petitioner also submitted that they have applied for the membership in IEX, where it will be eligible to trade directly on such platform and make use of such products/ services.

The Petitioner further submitted that it plans to procure power from firm sources (after evaluating best options), short term purchase and the remaining (if any) on day ahead basis through IEX purchase. Further, procurement of power from firm sources other than tied up sources would help UPCL realize optimum per unit power purchase cost (as fixed charges would be spread out over the maximum quantum of energy procured). The Petitioner further emphasized that the short-term power purchase cost is on a downward trend since FY 2019-20.

2.6.3 *Commission's Views*

The Commission appreciates the concern of the stakeholder and clarifies that the Petitioner is required to purchase power from all the sources available to it to meet the RPO in case of deficit. The Commission allows the cost of such purchases after carrying out the prudence check.

2.7 Capital Expenditure and Capitalization

2.7.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that the issue of Electrical Inspector Certificate for Capitalization should be taken seriously by UPCL as it has substantial money involvement and safety requirement as well.

He further submitted that a trend could be seen where all the utilities are projecting very high cost in Capitalisation as that gives them better returns. He also submitted that the thrust of UPCL is to spend more so that they can earn better RoE at 15.75%, more depreciation and interest on normative loan is allowed on capitalization. He requested the Commission to examine whether such expenditure will result in benefit to consumers. He further submitted that if the additional capitalization is without any appreciable benefit to consumers, then the same should not be approved. He further submitted that in its previous tariff orders for UPCL, the Commission had given very prudent orders regarding additional capitalisation and is sure that the methodology will be followed this year also.

2.7.2 *Petitioner's Reply*

The Petitioner submitted that it has provided the necessary information required by the Commission pertaining to the Electrical Inspector Certificates along with the clarification.

The Petitioner submitted that the accounts of the Company are audited by an Auditor appointed under Companies Act, 2013 and by the team of Comptroller and General of India every year. Therefore, there is no need for a separate examination in the matter. However, the actual capitalisation is claimed during the True up of particular year as per the Audited Annual Accounts. In addition to this, the Petitioner submitted that the capitalisation projected is legitimate, as the disallowance of the actual expenses would cause financial injury to the UPCL. The recovery of the other claims mentioned by UPCL in the Petition are in accordance with the Regulations and past directions of the Commission.

The Petitioner further submitted that Petitioner is projecting capital expenditure based on the requirement towards Loss Reduction, System Strengthening, Load Growth etc. Most of the schemes are centrally funded and hence, the impact on the consumers in ARR/ Tariff is very less (around 20-40% on an average depending upon the grants stipulated in the schemes). Further the Commission under true-up process undertakes prudence check and has been allowing capitalisation as per audited accounts and based on the Electrical Inspector certificates. The Petitioner submitted that all capital expenditure are incurred after due approval of competent authority of UPCL.

2.7.3 *Commission's Views*

The Commission has duly scrutinised the actual and proposed capitalisation for FY 2020-21, and that projected for the fourth control period in accordance with the provisions of UERC Tariff Regulations, 2018 and UERC Tariff Regulations, 2021 and the same has been discussed in Chapters 3 and 4 of the Order.

While carrying out any capital expenditure UPCL is required to take note of the shortcomings pointed out by the stakeholder.

The Commission, in this regard, would like to clarify that the additional capitalization, both incurred and proposed by the Petitioner are examined separately in detail while carrying out the truing up of expenses and projecting tariff and only legitimate expenses are allowed in accordance with UERC Tariff Regulations as applicable from time to time.

2.8 O&M Expenses

2.8.1 *Stakeholder's Comments*

Shri Sunil Kumar Gupta of Teesri Aankh ka Tehalka submitted that in last 4 months O&M expenses have drastically increased.

2.8.2 *Petitioner's Reply*

The Petitioner submitted that the Operation and Maintenance Expenses for the True up year is based on the Actual Audited Accounts and for the FY 2022-23 to FY 2024-25, the operation and maintenance Expense is projected in line with the UERC MYT Tariff Regulation 2021.

2.8.3 *Commission's Views*

The issue of O&M expenses has been deliberated by the Commission in Chapters 4 and 5 of this Order and the Commission has approved the O&M expenses on normative basis in accordance with the provisions of UERC Tariff Regulations, 2021.

2.9 Interest on Loans

2.9.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand and Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that the Commission must relook into the rate of interest allowed as rate of interest is showing downward trend.

2.9.2 *Petitioner's Reply*

The Petitioner submitted the Interest on Loan has been considered at a weighted average rate of interest of 10.63%, similar to actuals of FY 2020-21 and in line with the existing arrangement of loans with REC and PFC and other financial institutions. These loans have been taken few years back and not in recent past. Further the interest rates provided by banks/financial institutions depend on various other factors including credit score, credit history, loan size, loan type, length of term, payment frequency etc.

2.9.3 *Commission's Views*

The Commission while carrying out the truing up for FY 2020-21 as discussed in Chapter 4 of this Order has carried out detailed computation of the rate of interest before allowing interest on loan to the Petitioner.

2.10 Return on Equity

2.10.1 *Stakeholder's Comments*

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that the performance of UPCL has a significant impact on retail tariffs of consumers. Therefore, there is a need to link recovery of return on equity as performance of licensee based on indicators such as supply availability, network availability and aggregate technical and commercial loss reduction etc., rather than allowing on fixed percentage basis as in the previous Orders.

2.10.2 *Petitioner's Reply*

The Petitioner submitted that Return on Equity is computed as per Regulation 26(2) of UERC Tariff Regulations, 2021. Return on equity is to be calculated on post-tax basis at 16.50% as mentioned below:

> *"(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 24.*
>
> *Provided that, Return on Equity shall be allowed on amount of allowed equity capital for the assets put to use at the commencement of each financial year.*
>
> *"(2) Return on equity shall be computed on at the base rate of 15.5% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and* ***at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis."***

Accordingly, UPCL has computed RoE at 16.50% on opening equity for FY 2020-21. The opening equity for FY 2020-21 has been arrived based on the closing equity for FY 2019 20 as per the calculation of equity as shown in the true up for FY 2019-20. The addition in equity each year during FY 2020-21 and and the years of the 4th Control period (FY 2022-23 to FY 2024-25) is based on the proposed funding of capitalization as per the details provided in the MYT Petition. However, after considering the funding through Grant amount, the overall equity has been restricted to 30% of the balance amount.

Further, the matter of linking RoE with indicators such as supply availability, network availability and aggregate technical and commercial loss reduction is under the purview of the Commission, and it may decide on the matter accordingly.

2.10.3 *Commission's Views*

The Commission has allowed RoE to the Petitioner as per the provisions of UERC Tariff Regulations and have been discussed in detail in Chapter 4 and 5 of this Order.

2.11 Depreciation

2.11.1 *Stakeholder's Comments*

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that the depreciation rate should be rationalized, and the period of depreciation should be extended. He further suggested that the tenure be extended to 15 years from 12 years. Further, Accumulated depreciation, over and above debt repayment, should be used to reduce the equity base for return on equity.

2.11.2 *Petitioner's Reply*

The Petitioner submitted that the depreciation has been computed in line with the UERC MYT Tariff Regulation 2021. Further, Petitioner submitted that now a days, general tenure of loan repayment is 10-12 years. Out of all the loan amounts, some have a moratorium period of 1-2 years. The repayment of loan is compensated through the depreciation accumulated at the end of the financial year. Considering the same, the repayment of loan shall be deemed to be equal to the depreciation allowed for that year. Hence, considering the repayment of loan, the period of depreciation is in line with the UERC MYT Tariff Regulation, 2021.

2.11.3 *Commission's Views*

The Commission has allowed Depreciation to the Petitioner as per the provisions of UERC Tariff Regulations and the same have been discussed in detail in Chapter 4 and 5 of this Order.

2.12 Department Employees and Pensioners

2.12.1 *Stakeholder's Comments*

Shri B.P Maithani of RTI club submitted that instead of giving reasonable rebate to employees of all the three Corporations in the consumption of electricity, UPCL has given blanket liberty to them to consume as much as they want and pay only fixed paltry sums as electricity charges. He further, submitted that UPCL is bestowing same benefits of concessional power to the employees of UJVNL also from whom it buys power foregoing even the normal admissible rebate available in power purchase agreements. He also submitted that in Uttarakhand, there are scores of offices of UPCL and its sister organizations all over the State where meters are installed but are not functioning and, therefore, no readings is available. This clearly shows that there is gross misuse or abuse of electricity by the employees and pensioners of power entities in Uttarakhand. Section 62(3) of the Electricity Act 2003 specifically prohibits any discrimination between departmental and other consumers in fixing tariff rates. The stakeholder submitted that the system of unlimited supply of electricity to the employees and pensioners in Uttarakhand in not only unreasonable but also illegal.

2.12.2 *Petitioner's Reply*

The Petitioner submitted that employees of UPCL are being given the facility of departmental electricity connection since U.P. State Electricity Board was in existence. Under this facility, a fixed lump-sum amount is charged from the employees according to their designation towards electricity charges for electricity supplied to them and, therefore, this electricity is not free. Erstwhile UPSEB was unbundled under the provisions of Uttar Pradesh Electricity Reforms Act, 1999 and Section 23(7) of the said Act provides "terms and conditions of service of the personnel shall not be less favourable to the terms and conditions which were applicable to them before the transfer". The same spirit has been echoed under first proviso of Section 133(2) of the Electricity Act, 2003. The benefits for employees/pensioners as provided in Section 12(b)(ii) of the Uttar Pradesh Reform Transfer Scheme, 2000 includes "concessional rate of electricity", which means concession in rate of electricity to the extent it is not inferior to what was existing before 14th January, 2000. The rates and charges indicated above for this category are strictly in adherence of the above statutory provisions. As UPCL is the successor entity of UPPCL (formed as a result of unbundling of UPSEB), the above legal provisions are also applicable on it (UPCL).

Further, Petitioner clarified that in the previous Tariff Orders, the Commission has not been allowing the impact of concessional supply to departmental consumers including pensioners of UPCL, UJVN Ltd. and PTCUL and has been considering revenue corresponding to the ABR of domestic consumers. Hence, there is no burden on other consumers of the State.

2.12.3 *Commission's Views*

The Commission is of the view that the overall tariff increase is a function of projected Annual Revenue Requirement for the ensuing year (including impact of truing up of expenses and revenue for previous year) and projected revenue at existing tariffs. The Commission has carried out the detailed scrutiny of ARR for FY 2022-23 and truing up for FY 2020-21 in accordance with the provisions of the relevant Regulations as discussed in subsequent Chapters of this Order and as an outcome of scrutiny, the Commission has approved an average tariff increase of 2.68% as discussed in Chapter 6 of this Order. Moreover, the Commission in its previous Tariff Orders has not been allowing the cost of concessional supply provided by UPCL to its departmental employees and pensioners and UPCL has been asked to bear the same out of its own resources. This issue has again been dealt in detail in Chapter 4 of this Order.

2.13 Rebate on Online payment of Electricity Bills

2.13.1 *Stakeholder's Comments*

Shri R. K. Singh of Tata Motors Ltd. requested the Commission to allow UPCL to continue this initiative for FY 2022-23., which will help in achieving better collection efficiency, at the same time it would encourage its consumers for timely payment and, hence, avoid risk of bad debts for UPCL.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that direct transfers from SBI to SBI needs to be considered for rebate @ 1.25%, if made within 10 days from the date of issuance of bill.

2.13.2 *Petitioner's Reply*

The Petitioner submitted that as per the provision of the Tariff Order dated 26.04.2020, prompt payment rebate of 0.75% of the monthly bill is applicable in case of bank transfer. Accordingly, the rebate is being allowed by the UPCL.

2.13.3 *Commission's Views*

The Commission agrees with the suggestion of the stakeholder as bank transfer is also a mode of online payment. Accordingly, the Commission has allowed a rebate of 1.25% towards timely payment of bills through bank transfers also, i.e. through NEFT/RTGS/IMPS and necessary amendment to this effect has been made in the Rate Schedule.

2.14 Revenue Gap

2.14.1 *Stakeholder's Comments*

Shri R. K. Singh of Tata Motors Ltd. submitted that the estimated Revenue gap of UPCL for current FY 2021-22 was Rs. 10.67 Crore and for next FY 2022-23 as Rs. 447.56 Crore. The stakeholder submitted that the revenue gap seems irrational and also other costs of Rs. 1137.7 crore appears to be 29% higher than that in FY 2020-21. Hence, he requested the Commission to direct UPCL to revisit its revenue gap and come up with reasonable figures.

2.14.2 *Petitioner's Reply*

The Petitioner submitted that the Net ARR for FY 2022-23 worked out to Rs. 7,701.27 Crore and the projected revenue at the existing tariff has been computed as Rs. 7,432.10 Crore. The computed revenue gap for FY 2022-23 is Rs. 447.37 Crore, after adjusting for true-up gap / (surplus) of FY 2020-21 along with the carrying cost which is proposed to be met through tariff increase. The figures of FY 2020-21 may appear to be lower due to COVID pandemic in absolute terms, however, it needs to be compared with input energy of respective years and the per unit cost difference is 15%. Further, the Petitioner submitted that it has provided explanation and computation of each element for FY 2020-21 and FY 2022-23 in the MYT petition.

2.14.3 *Commission's Views*

The Commission is of the view that the overall tariff increase is a function of projected Annual Revenue Requirement for the ensuing year (including impact of truing up of expenses and revenue for previous year) and projected revenue at existing tariffs. The Commission has carried out the detailed scrutiny of ARR for FY 2022-23 and truing up for FY 2020-21 in accordance with the provisions of the relevant Regulations as discussed in subsequent Chapters of this Order.

2.15 Collection Efficiency

2.15.1 *Stakeholder's Comments*

Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that the UPCL could not control its receivables. UPCL presented that its collection efficiency is about 96.5%. He further submitted that revenue collection trends affected the tariff revenue and imposed burden on regular payers of electricity bill. Therefore, he requested the Commission to give direction to UPCL to prepare and present a blue print for increasing division-wise collection efficiency in future.

Shri R. K. Singh of Tata Motors Ltd. and Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that the UPCL's overall collection efficiency is improving because of Industrial consumers only as it is more than 100% in HT industry section whereas collection efficiency under RTS-3 category is only 53.06% & RTS-4 category it is 75.63%. Also, receivable amount in rupees for RTS-3 category is Rs. 559.97 Crore so if UPCL manages to receive this amount there shall not be any revenue gap & thus, consumer shall not bear the burden because of poor collection efficiency in these categories.

Shri Teeka Singh Saini of Bharatiya Kisan Union submitted that high pending arrears of UPCL should be strictly recovered.

2.15.2 *Petitioner's Reply*

The Petitioner submitted that the Commission vide its Tariff Order dated 18-04-2020 for FY 2020-21 approved the target of collection efficiency @ 99.10% and distribution losses @ 14.00%. With a view to achieve collection efficiency and billing efficiency as approved by the Commission, UPCL has fixed the month wise revenue collection targets of all the distribution divisions. The monitoring of these collection targets is being done at Corporate Office.

For recovery of outstanding arrears, the Petitioner submitted that the connections of defaulting consumers are being disconnected and notices under Section 3 & 5 of the Uttarakhand (U.P. Government Electricity undertakings (Dues Recovery) Act, 1958) Adaptation and

Modification order, 2002 are being issued regularly and the same shall be taken-up more promptly for ensuing early recovery of outstanding arrears.

Further, with a view to recovery of arrears and provide relief to the consumer due to lockdown imposed in the State, UPCL vide its Office Memorandum No. 534/UPCL/RM/K-3 dated 19-02-2021 has introduced Surcharge Waiver Scheme for the period from 19-02-2021 to 18-05-2021 for the consumers of domestic, non-domestic (upto 75 kW), PTW and LT Industry categories.

Further, the collection from PWW and Government Irrigation System is less than the assessment and, therefore, arrears have increased in these categories. In reference to this, the Petitioner submitted that it has been making constant efforts to reduce the arrears and improve the collection efficiency. UPCL is taking concerted efforts to reconcile such accounts and ensure higher recovery of the pending arrears. Further, Petitioner submitted that UPCL vide its letter number 4338/UPCL/RM/H6 dated 27.11.2021 requested GoU for adjustment of its receivables for the sale of power from the payables to the GoU and to provide grant in aid for balance amount of payables.

UPCL, further submitted that revenue gap computation is on accrual basis and not cash basis. However, the Petitioner is taking efforts to improve its cash position so as to reduce its working capital burden.

2.15.3 *Commission's Views*

The Commission has given due consideration to the issues raised by the stakeholders and the replies submitted by the Petitioner. The Petitioner should continue to take all possible steps to reduce the arrears, in order to improve its cashflows. However, it is clarified that collection of arrears will not result in tariff reduction, as the tariffs are determined on accrual basis and not on cash basis.

2.16 Metering and Billing Efficiency

2.16.1 *Stakeholder's Comments*

Shri Vijay Singh Verma submitted that the billing cycle for domestic consumers should be on a monthly basis so as to reduce the burden on domestic consumers. Further, delayed payment surcharge should be applied after 30 days from delivery of bills to the consumer. He also submitted that allowance should be made for those consumers who want to pay their bills in advance.

Shri Vijay Singh Verma submitted that the reading of PTW connection should be on a monthly basis, billing should be done after two months and surcharge for late payment should be applied after one year so as to diminish the cases of NA/NR/IDF. The stakeholder observed that reading within the month November to May is discarded by the licensee/authority.

Shri Mahendra Singh Negi, Shri S.K. Agrawal and Shri S.P. Chauhan submitted that UPCL should provide monthly bill to the consumers.

Shri Teeka Singh Saini of Bharatiya Kisan Union submitted that there have been cases of NA/NR/IDF which needs to be addressed as public private tube well consumers are facing lot of difficulties in getting these issues fixed.

2.16.2 *Petitioner's Reply*

The Petitioner submitted that vide its letter no. 1885/UPCL/RM/C-17, dated 14-07-2021 they had directed all the field officers to comply with this direction of the Commission, i.e. to restrict percentage of NA/NR cases to 2% latest by 30-09-2021. The quarter wise targets of NA/NR cases for FY 2021-22 are as follows:

Table 2.1: Quarter Wise Targets For FY 2021-22 of NA/NR cases

Particulars	At the end of Q-2	At the end of Q-3	At the end of Q-4
NA /NR cases	1.42%	1.34%	1.28%
IDF cases	1.80%	1.71%	1.62%

The Petitioner further submitted that status of NA/NR cases as on 8-11-2021 is 2.65% & 2.10%.

The Petitioner also submitted that the monthly billing of the domestic consumers with contracted load of 4 kW and above has been started from the month of October, 2019. Further UPCL is putting efforts to convert the billing of domestic consumers from bi-monthly basis to monthly basis.

The Petitioner with respect to PTW connections submitted that the Late payment surcharge is being charged in accordance with the appropriate Regulations of the Commission and the previous Orders of the Commission.

2.16.3 *Commission's Views*

The Commission has taken note of various suggestions received from the stakeholders regarding improvement in metering and billing **and is of the view that UPCL should consider the suggestions given by the stakeholders to improve its metering and billing system and also change the billing cycle of domestic consumers from bi-monthly to monthly.**

2.17 Open Access

2.17.1 *Stakeholder's Comments*

Shri Man Singh of M/s ALPS Industries Ltd and Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that high cross-subsidies have a detrimental impact and result in waste of economic resources and revenue loss for the State utilities and requested that Open Access needs to be made competitive in the State. They further submitted that the charges on the open access, especially the additional surcharge needs to be allowed cautiously and UPCL needs to find ways to sell its power providing incentives for more consumption of power and making it available on 24 hours basis. Further, Distribution losses needs to be removed or restricted to 5% in case of open access power being purchased. Also, Cross subsidy surcharge needs to be reduced to 0.40 per kVAh. Further, rebate/surcharge for availing supply of voltage higher/lower than base voltage should also be extended to open access power customers on 33 kV and 132 kV.

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that the open access charges reflects that the approach of UPCL is just to defeat the competition by increasing charges on open access. The stakeholder submitted that the proposed charges are against the spirit of National Tariff Policy as well as the Electricity Act 2003. UPCL in its current ARR has proposed increase in charges exorbitantly whether it is distribution loss, cross subsidy or additional surcharge which should not be entertained by the Commission. Further, UERC regulations specify that the consumer shall pay to the distribution licensee an additional surcharge on the charges of wheeling to meet out the fixed cost of such distribution licensee. However, the tariff order is contrary to the Regulations. Instead of wheeling charges the additional surcharge is being calculated on & charged per kWh basis.

Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that with reference to the provisions in the Tariff Policy, 2016, it is clear that the surcharge under the Electricity Act, 2003 is only for the purpose of meeting the fixed cost of the distribution licensee on account of its obligation to supply. The obligation to supply is provided under Section 43 of the Electricity Act, 2003. Accordingly, he requested the Commission that while determining the additional surcharge from time to time, to follow the methodology and principles as laid down under the Electricity Act, 2003 and the Tariff Policy. The Commission may consider the issue and approve retail tariff for FY 2022-23 by reducing per unit tariff for all types of consumers.

2.17.2 *Petitioner's Reply*

The Petitioner submitted that presently, the Open Access Consumers with the Petitioner are of embedded nature. These Open Access Consumers buy power from the Petitioner as well as through Open Access as per their financial suitability but the Petitioner is required to supply power to them as per their contracted capacity with the Petitioner, in case these Open Access Consumers do not go for Open Access and choose to buy power from the Petitioner. Accordingly, the Petitioner is required to have an arrangement of power sufficient to meet the requirement of these Open Access Consumers including the quantum, which they were buying earlier through Open Access.

Due to its obligation, UPCL has made arrangement to supply power to the consumers including Open Access Consumers, which they were buying earlier through Open Access. In case, any consumer goes for Open Access, the Power Purchase commitments of the Petitioner becomes stranded and, therefore, the Open Access Consumers are required to bear the fixed component of power purchase cost of the Petitioner. Also, High Voltage Rebate is admissible on the Energy Charges. As no energy charges is payable on the Open Access Energy, no question arises for allowing rebate on Open Access Energy.

The Petitioner submitted that at present, voltage-wise/category-wise losses are not available and, therefore, category wise Tariff has been calculated on the basis of average cost of supply and permissible level of cross subsidy. This is as per Regulation 91 of the UERC Tariff Regulations, 2018. In the absence of availability of voltage-wise losses, which is a mix of technical losses and commercial losses, the distribution losses are required to be charged on average basis from all the category of consumers as well as open access consumers. Further, the Petitioner has filed a separate Petition for determination of additional surcharge for the period from April 2022 to September 2022 as per the provisions of Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2015 as applicable and as amended from time to time. UPCL has given detailed computation in support of its claim for the determination of additional surcharge.

Also, the Petitioner has proposed Cross subsidy surcharge in line with the provisions of the UERC (Terms and Conditions of Intra State Open Access) Regulations, 2015 and its subsequent amendments. Cross subsidy surcharge is computed by reducing the average tariff from the tariff of the category. As such cross-subsidy surcharge for HT Industrial consumers and for non-Domestic consumers is proposed @ 0.55 Rs./kWh and 1.20 Rs./kWh respectively.

2.17.3 *Commission's Views*

Some of the stakeholders have raised the issues related to Open Access charges and the applicability, which are governed by Uttarakhand Electricity Regulatory Commission (Terms and Conditions of Intra State Open Access) Regulations, 2015 and its amendment thereof. The principles for calculating Transmission/rate charges, wheeling charges, cross-subsidy and additional surcharges and losses have already been specified in the Regulations and are, therefore, worked out on such specified principles.

2.18 Billable Demand & Fixed Charges

2.18.1 *Stakeholder's Comments*

Shri Vikas Jindal & Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that in the existing tariff structure the demand charges are levied on actual maximum demand or 80% of contracted demand if the actual demand is less. He further submitted that the minimum billable demand should not be more than 75% of the contracted demand, as is prevalent in many other States including U.P. Ideally, demand charges should be levied on average maximum demand of whole month instead of peak demand recorded in a slot as at present.

Shri Mahendra Singh Negi and Shri Rajendra Kumar Chaudhary submitted that fixed charges should be abolished.

Shri S.K. Agrawal submitted that fixed charges are very high and needs to be reduced further.

Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that UPCL has proposed various demand charges for different voltage levels, which will increase the burden on industrial consumers.

Shri Ram Kumar Agarwal of Umashakti Steels Pvt. Ltd submitted that the proposed hike in demand charges should be avoided, rather minimum demand charges of 80% contracted load should be reduced to 75% of the contracted load.

Shri Man Singh of M/s ALPS Industries Ltd. and Shri Harindra K. Garg of SIDCUL Manufacturers Association of Uttarakhand submitted that in the current year UPCL has proposed increase of Rs. 35 in fixed charges (From Rs. 410 to Rs. 445) which should not be entertained. He requested the Commission not to increase the demand charges. The stakeholder further submitted that the calculation of billable demand is on 80% or above for sanctioned load and suggested that should be calculated on 70% or above on sanctioned load.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that fixed charges should not be increased and for calculation of billable demand for fixed charge, it should be on average basis of whole month instead of peak load of a particular slot of a month.

Shri Kartikey Tomar of M/s PSR Innovations submitted that small scale industries established in rural areas, whose power load requirement is up to or less than 500 kVA, should be given special concession in unit rates or Demand charges.

Shri Sanjay Kumar of M/s Ambashakti Glass Pvt. Ltd submitted that rate of Fixed Charges have been proposed to increase by 13.33% (from Rs. 300/kVA to Rs. 340/kVA) which is too high in the history of tariffs and all the other charges as known.

2.18.2 *Petitioner's Reply*

The Petitioner submitted that out of the entire ARR, all costs except variable power purchase cost from Thermal based power plants (Coal & Gas) are fixed in nature, i.e. Power purchase fixed charges, O&M expenses and Financial Costs would be incurred irrespective of sale of energy. The proportion of fixed and variable cost and revenue for the Petitioner is calculated for FY 2022-23 where the portion of fixed charge and variable charge in the total ARR is in the ratio of 77.50: 22.50, whereas the recovery of revenue from fixed charge and variable charge is in ratio of 15.43: 84.57. Hence, there is a scope for improving the recovery from fixed charge rather than increasing the variable charge. The Petitioner submitted that UPCL needs to be prepared with supply of power based on the contracted demand, irrespective of the consumption. Hence, the obligation of payment of fixed charges for power purchase arises and ideally all such fixed costs need to be recovered from demand/ fixed charges of consumers, so that the Petitioner is able to manage its cash flow. It is because of such reason, reduction in fixed charges may be detrimental to the Petitioner and, hence, undesirable. Further, since the distribution network has to be laid down to meet the peak demand of the consumer, the demand charges are recovered to cover the system cost to meet the peak.

The Petitioner further submitted that the total cost of UPCL may be segregated into power purchase cost and other cost. While the majority of expenditure is of fixed nature, therefore this cost should be recovered through fixed/demand charges. For recovery of this fixed cost billable demand has been decided by the Commission as 80% of the Contracted Load or actual recorded demand during the month, whichever, is higher. Reduction in billable demand from 80% to 75% would reduce the recovery of fixed charges which should be avoided in a mandate of two-part tariff. Further, in case demand charges are reduced, the energy charges will have to be increased in order to have the composite tariff equivalent to the cost of supply plus required level of cross subsidy.

2.18.3 *Commission's Views*

The Commission would like to clarify that the fixed charges component in the ARR for FY 2022-23 is around 59%, which the Petitioner has to incur irrespective of the consumption. The Commission in Chapter 6 of this Order has discussed the same in detail while approving the Fixed/Demand Charges for each Consumer Category.

2.19 Continuous Supply Surcharge

2.19.1 *Stakeholder's Comments*

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited, Shri Man Singh of M/s ALPS Industries Ltd. and Shri Harindra K. Garg of SIDCUL Manufacturers Association of Uttarakhand submitted that it is the responsibility of UPCL to supply 24 hours uninterrupted power supply, hence, 5% premium over the regular tariff charges should not be levied for continuous power supply. He further requested that the Commission may remove the continuous charge @ 5%, and if anyhow decides to continue such charges, then it should be further reduced to 2.5% of energy charges. Keeping balancing approach, UPCL need to compensate at the same rate to continuous power consumers if the electricity supply is withheld/breakdown because of DISCOM.

Shri Vijay Singh Verma submitted that power situation in Roorkee, Laksar and Landhora is still grim as transmission network at 220 kV/132 kV level is still over loaded. The Commission is requested to hold PTCUL / UPCL accountable for the remedial action taken till today, and if not, appropriate action should be taken by the Commission.

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry has submitted that in the last Tariff Order, the Commission provided for levy of 5% additional energy charges for continuous supply to those consumers who have opted to avail continuous supply during the year. The Commission had determined separate tariff, accordingly, for such HT industries. He further submitted that the Commission is enjoined to follow the Tariff Policy, which in Clause 8.2.1, squarely requires the Commission to determine the ARR of the UPCL in such a manner so as to ensure that the power is available for 24 hours. It cannot deny the Licensee its legitimate cost of power required to maintain supply for 24 hours. Neither can UPCL suppress its Aggregate Technical & Commercial (AT&C) losses by denying the consumers 24-hour supply. In the last Tariff Order, neither the Commission determined the ARR of UPCL for ensuring continuous supply nor did UPCL propose in its ARR the quantum of power purchase and the cost thereof required to ensure continuous supply to the opting industrial consumers. Similar is the position in the current ARR and Tariff Proposal of UPCL for FY 2022-23. The Commission in the last Tariff Orders had been determining the revenue requirement of UPCL by assuming that only some of the consumers would require continuous supply and, therefore, such consumers need to pay higher energy charges for continuous supply for the whole year. It is further submitted that "nature of supply" as defined above cannot be in the form of continuous or non-continuous supply. The Commission cannot differentiate between consumers by classifying them as continuous supply/non-continuous supply consumers and thereby charge differential tariff. It is against the spirit of Electricity Act, 2003 and may encourage the utility to resort to load shedding by restricting supply to a group of consumers although load shedding has not been done in the State in past few years and all industries are getting the same quality of supply. In view of the aforesaid situation, the Commission’s order for levy of 5.0% additional charge for continuous supply needs to be reconsidered in accordance with the provisions of the Act and Tariff Policy. Further, with the existing provision in tariff, consumers opting for continuous supply are subjected to 5.0% additional energy charge round the year even though load shedding may be warranted for a few hours only in the year. Therefore, if at all such additional charge (continuous supply charge) is to be levied for whole of the year, it should not be more than 2% on the energy charges of the opting consumers.

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry further submitted that as per the last Tariff Order, the industries opting for continuous supply have to pay continuous supply surcharge on energy charges. Continuous supply has neither been defined in the Tariff or Regulations nor any standards have been fixed for such supply. The tariff only provides that such industrial consumers who opt for continuous supply shall be exempted from load shedding during scheduled/ unscheduled power cuts and during restricted hours of the period of restriction on usage approved by the Commission except load shedding due to emergency breakdown and shutdown. The breakdowns and shutdowns take place in continuous supply feeders as in the general industrial feeders. Many of the industries have withdrawn their option on account of the above situation. The stakeholder submitted that there is an urgent need to define continuous Supply and fixation of performance standards for continuous supply with provision of compensation from UPCL for interruptions in supply to such industrial consumers.

2.19.2 *Petitioner's Reply*

The Petitioner submitted that as per Clause 8.2.1 (1) of the Tariff Policy, the consumers willing to avail continuous and quality power supply are required to pay a tariff, which reflects efficient costs. This is an additional charge (premium) payable by the consumer to have the facility of getting continuous supply of power. These consumers are exempted from load shedding during scheduled/unscheduled power cuts and during restricted hours of the period of restriction of usage approved by the Commission from time to time. The Petitioner also submitted that the load shedding has been drastically reduced (16.56 MU in FY 2020-21). However, load shedding required due to emergency break-down / shut-down is imposed on these consumers as and when the situation arises. For the purpose of ensuring continuous supply, UPCL is required to incur extra infrastructure cost as well as arrangement for additional energy, which is at a higher cost.

Further, on the demand of the consumers, the Commission has already reduced the Continuous Supply Surcharge from 15% to 10% vide its Tariff Order dated 21.03.2018 and from 10% to 7.5% vide its Tariff Order dated 18.04.2020. Further, the Commission in its order dated 26 April, 2020 has decided to reduce the continuous supply surcharge from 7.5% of energy charges to 5% of energy charges to provide relief to HT industries during this COVID period.

The Petitioner submitted that UPCL has taken appropriate actions such as system augmentation/upgradation, amongst various other measures, are being undertaken to ensure that the continuous power is made available to the consumers of the State.

2.19.3 *Commission's Views*

The Commission observes that it has already substantially reduced the Continuous Supply Surcharge. As discussed in subsequent Chapters, UPCL is still having shortages in winter months, which are primarily met through short-term power purchase. The issue of continuous surcharge has been dealt in detail by the Commission in Chapter 6 of this Order.

2.20 Recovery of Pending Bills

2.20.1 *Stakeholder's Comments*

Shri Arvind Sharma of Human Rights & RTI Association submitted that the bill raised by the utility for every consumer is to be paid on time. There are around 40% consumer who do not pay bills on timely basis and the shortage of cash recovery is imposed as burden on the balance 60% of the consumer in the form of tariff hike.

He further submitted that many Government Departments are not paying bills on time and the burden of shortfall in recovery of bills from the Government department is imposed on the consumer in the form of tariff hike.

2.20.2 *Petitioner's Reply*

The Petitioner submitted that the total amount billed in any financial year is considered as the total revenue of the utility for that particular financial year, in spite of the fact that whether the utility recovers it from the consumer or not. However, non-recovery of billed amount is a loss to the utility and the burden of shortfall in recovery of billed amount is not imposed on the consumer in the form of tariff hike. The Commission also carries out prudence scrutiny of the billing system. Further, in case of any abnormality in the billing, the Commission, accordingly, recasts the sales to adjust the revenue, accordingly. Hence, on accrual basis there is no burden on the consumer in the form of tariff hike.

As per the provision of the tariff order dated 26.04.2021, prompt payment rebate is applicable to the consumer and, accordingly, the rebate is being allowed by the UPCL. The relevant extract of the Order is as below:

"(i) A prompt payment rebate of 1.25% of the monthly bill (excluding taxes and duties) shall be provided to the consumers for payment of electricity bills through various modes of digital payment such as credit cards, debit cards, UPI BHIM, internet banking, mobile banking, mobile wallet etc. within 10 days from the date of issuance of the bill/bill date.

A prompt payment rebate of 0.75% of the monthly bill (excluding taxes and duties) shall be provided to the consumers for payment of electricity bills not through digital mode but through other modes as payment, namely Cash/Cheque/Demand Draft/Bank Transfer etc. within 10 days from the date of issuance of the bill/bill date.

Provided that the prompt payment rebate shall be subjected to a cap of Rs. 10,000/- per month for LT consumer and Rs 1,00,000/- per month for HT consumers".

Further, the Petitioner submitted that it has been making constant efforts to collect the revenue amount arrears from the government departments. It further submitted that UPCL vide its letter number 4338/UPCL/RM/H6 dated 27.11.2021 requested GoU for adjustment of its receivables for the sale of power from the payables to the GoU and to provide grant in aid for balance amount of payables.

2.20.3 *Commission's Views*

The Commission has given due consideration to the issues raised by the stakeholders and the replies submitted by the Petitioner. The Petitioner should continue to take all possible steps to reduce the arrears, in order to improve its cashflows. However, it is clarified that collection of arrears will not result in tariff reduction, as the tariffs are determined on accrual basis and not on cash basis.

2.21 Delayed Payment Surcharge

2.21.1 *Stakeholder's Comments*

Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that as per General Conditions of supply given in Annexure-I to Rate Schedule, the existing provision for delayed payment surcharge (Late Payment Surcharge) is as follows:

Delayed Payment Surcharge (DPS) (for all categories except PTW) - In the event of electricity bill rendered by licensee, not being paid in full within 15 days grace period after due date, a surcharge of

1.25% on the principal amount of the bill which has not been paid, shall be levied from the original due date for each successive month or part thereof until the payment is made in full without prejudice to the right of the licensee to disconnect the supply in accordance with Section 55(6) of the Electricity Act, 2003.

The stakeholder submitted that the Licensee should clearly indicate in the bill itself the total amount, including DPS, payable for different dates after the due date, after allowing for the grace period of 15 days, taking month as the unit. They further submitted that it is evident that delayed payment surcharge is to be levied on the principal amount of the bill, which remains unpaid excluding the delayed payment surcharge levied in previous months. However, as per practice prevailing in UPCL, if the bill is not paid by the consumer, the delayed payment surcharge is levied on the total unpaid amount including delayed payment surcharge for previous month. The provision in the billing software is such that the arrears are not split into principal amount and delayed payment surcharge in the following month to enable levy of delayed payment surcharge on the principal amount only. Thus, once a consumer becomes defaulter, delayed payment surcharge is charged on both principal amount and previous delayed payment surcharge in arrears. This anomaly needs to be corrected and billing software needs to be modified suitably so that delayed payment surcharge is levied on the principal amount remaining unpaid and not on delayed payment surcharge levied in previous months. In the existing billing system, delayed payment surcharge is levied and charged from the consumers on the amount of delay payment surcharge also. Levy of surcharge at 1.25% is very much high as per market condition and, therefore, the stakeholder requested the Commission to reduce this to 0.5%.

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that the consumer's bill issued by the Licensee violates the provisions of the Regulations and Tariff. The UERC (Electricity Supply Code) Regulations, 2007 provides that delivery of each bill to the consumer shall be affected 15 days before the due date of payment of the bill. The provisions of Tariff lay down grace period of 15 days from the due date before levy of delayed payment surcharge. Evidently, a consumer is not liable for delayed payment surcharge if the bill is paid by him within 30 days of receipt of the bill. As per practice prevailing in UPCL for billing, due date is fixed giving only 3-4 days' time from bill generation date (instead of minimum 15 days provided in the Regulations) and then grace period is fixed allowing 15 days grace period from due date. Thus, consumer is not allowed the specified period to pay the bill without delayed payment surcharge.

The Commission may look into this anomaly in the billing of the consumers so that they are not penalized unnecessarily by violations of the provisions by the Licensee. Further, the due dates and grace period should be system generated. The billing software should be modified so that due date is automatically fixed 15 days from the bill generation date and further 15 days grace period is fixed, accordingly, for payment without attracting delayed payment surcharge.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that the Petitioner is not following the directions of Commission, as the bills are not being issued well in time and are not being delivered 15 days before the due date of bill. Also, marking date on the bills is in the hands of UPCL accounting department who use the same as per their own convenience. The LPS is being charged on the old system, if the bill is paid after the due date, LPS is being charged for whole month. If any consumer wishes to pay his dues in instalments the same is being not accepted by the accounts department of UPCL, and they try to compel consumer to pay the bill amount in one go. Further, the entry in accounts is being made when the whole amount is deposited, instead of posting the amount when deposited in UPCL account. The improper accounting treatment generates wrong LPS amount which is then being protested by the consumer. He further requested that LPS issue needs to considered seriously by the Commission advising the UPCL authorities to act as per relevant tariff orders and regulations.

Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that UPCL is charging different types of LPS —Arrears like Current LPS, Advance bill LPS, Last month Arrears, LPS Arrears, Previous year Arrears, Current year arrears etc. without giving details of such arrears. Consumers were not given details of such arrears/LPS on their request. Therefore, the Commission is requested to direct UPCL not to charge such arrears/LPS without giving computation of the same.

Shri R. K. Singh of Tata Motors Ltd. requested the Commission to provide directives to UPCL that if delay in payment occurs due to payment gateway or third-party service provider, the consumer shall not be held liable to pay late payment surcharge.

Shri Man Singh of M/s ALPS Industries Ltd and Shri Harindra K. Garg of SIDCUL Manufacturers Association of Uttarakhand submitted that there are some issues from UPCL end such as improper circulation of bills and wrong accounting of bills. They, therefore, requested the Commission to consider issue of LPS seriously and advise the UPCL authorities to act as per relevant tariff orders and regulations. In case of delay in bill distribution consumer should be granted grace period and dispute due to wrong accounting shall not be considered for LPS.

Shri B.P. Maithani of RTI Club submitted that one of the clauses in the purchase agreement allows a rebate of two percent of the bill if the payment is made within the stipulated time. For this purpose, the overdraft accounts are opened in the banks so that power bills could be paid instantaneously. But for some reasons, UPCL has become a regular defaulter in timely payment of power bills and, therefore, foregoing the rebate of 2 percent on the bills. So much so UJVNL a sister organization and one of the suppliers of power to UPCL has declared that the rebate is not applicable to UPCL thereby, saving for itself the out go of rebate amount and robbing the consumers of UPCL the benefit of rebate in the cost of power. He further submitted that this is the reason that UPCL suffers loss of Crores of rupees every year. He further submitted that it is deliberate delinquency due to suspected complicity of the top management of both UPCL and UJVNL who must be sharing the benefit accruing to UJVNL from no rebate to UPCL.

Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that UPCL has proposed to abolish the grace period for payment of electricity bills by consumer. The grace period facility was allowed by the Commission to provide appropriate and reasonable time for payment of bills without delayed payment surcharge. Presently, due date given by Licensee is only 2-3 days from the date of generation of bill which is against the provisions of Electricity Supply Code Regulations, which provide for due date of 15 days from the date of delivery of bill to consumer and further, 15 days grace period for payment without delayed payment surcharge. He further submitted that UPCL is continuously making non-compliance of this provision by allowing due date of only 2-3 days from date of generation of bill. The proposal of Licensee to abolish grace period is highly opposed. The facility of grace period introduced by the Commission years back should not be withdrawn.

2.21.2 *Petitioner's Reply*

The Petitioner submitted that the bills are being generated and delivered to the consumers through email and SMS at the registered E-mail ids/mobile phones as per the direction of the Commission in its order dated 26.04.2021. In case consumer has failed to make the payment within due date of the bill, late payment surcharge is being levied as per the provision of the tariff order. Further, on specific complaint of the consumer, the matter may be checked and may be decided as per the results of the checking.

The Petitioner submitted that based on the cash flow position, the utility is making early payments and earning rebates wherever possible. The same rebate is also taken into account, which reduces the ARR. The cash flow issues arises mainly due to non-payment of electricity dues by consumers on regular basis. Hence, in such situation there are instances of late payment surcharge.

The Petitioner submitted that the Commission in its Tariff Order dated 26-04-2021 at para 5.1.3.1.2 held as follows in the matter:

"Hence, considering the request of the Petitioner, the Commission has decided to abolish the grace period for all the categories"

The Petitioner also submitted that the bills are being generated and delivered to the consumers through email and SMS at the registered E-mail ids/mobile phones as per the direction of the Commission in its order dated 26.04.2020. In case consumer fails to make the payment within due date of the bill, late payment surcharge is being levied as per the provision of the tariff order.

The Petitioner further submitted that as per directions of the Commission bills are being delivered to the consumers on time and the consumers are being allowed clear 15 days time for making the payment of the bills.

The Petitioner further clarified that the Delayed Payment Surcharge is not being levied on the arrear amount of delayed payment surcharge. This is being levied only on the principal amount of electricity arrears.

2.21.3 *Commission's Views*

The Commission has gone through the comments of the stakeholders and submissions of the Petitioner. DPS is a penalty on the defaulting consumers leviable only in case the consumer is unable to pay, in full, the amount by the due date and hence, the rate should be on a higher side. The Commission has abolished the Grace Period in its Tariff Order dated April 18, 2020 and had directed the Petitioner to ensure that bills are delivered to the consumers on time and due date for payment of bills is specified atleast 15 days from the date of delivery of bills. Hence, **UPCL is once again directed to ensure compliance of the same failing which action may be initiated against it.**

2.22 Provision for Bad & Doubtful Debts

2.22.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand and Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that even though UPCL has not provided any amount for bad and doubtful debts this year but they have justified their earlier analogy in this ARR also and have asked Commission to allow for Bad and doubtful debts at the time of true up in future years. He further requested the Commission to be very careful in this as amount as claimed by UPCL against Bad and doubtful debts is very high and the previous provisions allowed to UPCL have not been utilised by UPCL so far. Accordingly, until the previous provisions are exhausted, no further provision should be allowed to UPCL in this respect.

2.22.2 *Petitioner's Reply*

The Petitioner submitted that as per Regulation 31(1) of the UERC Tariff Regulations, 2021, the provision for bad and doubtful debts is as under:

> *"The Commission may allow a provision for bad and doubtful debts up to one percent (1%) of the estimated annual revenue of the distribution licensee, subject to actual writing off bad debts by it in the previous years."*

However, the Petitioner has not claimed any Bad and doubtful debts for FY 2020-21.

It is further submitted that the Petitioner has received approval from the Commission vide letter no. UERC/6/TF-540/2021-22/2021/671 dated 12.10.2021 on Policy for Provisioning and Writing Off Bad & Doubtful Debts. The Petitioner is in the process to identify and write off the fictitious and irrecoverable revenue arrears.

2.22.3 *Commission's Views*

The issue of the provision for Bad & Doubtful debts has been deliberated by the Commission in Chapter 4 and 5 of the Order.

2.23 Theft

2.23.1 *Stakeholder's Comments*

Shri S.P. Chauhan submitted that power theft should be stopped by 100% and efforts should be made for curbing corruption cases in the department.

2.23.2 *Petitioner's Reply*

The Petitioner submitted that following action is being taken for reduction of theft of energy:

a) Vigilance raids are being conducted and cases are being registered under Section 126 and 135 of the Electricity Act, 2003. Legal proceedings are being initiated against the person(s) who are found indulging in theft of electricity.

b) Mechanical meters are being replaced by electronic meters.

c) Defective Meters are being replaced

d) LT ABC is being laid in theft prone areas.

e) Automatic Meter Reading is being done for high value consumers.

2.23.3 *Commission's Views*

The Commission has taken note of the concerns raised by the stakeholders and the initiatives taken by UPCL for reducing the theft and losses.

2.24 KCC Data

2.24.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that UPCL has done a good job in compiling data in KCC cell. Though the compilation is excellent but it seems that sufficient benefits have not been derived from the scrutiny of this data. He further requested the Commission to set up one cell either in the office of the Commission or in UPCL for scrutiny of this data. This cell should be independent and should not be reporting to UPCL. He also submitted that this initiative will help in proper diagnostics of ills and malafides prevailing in UPCL at division level and will highlight the vital areas to be settled.

2.24.2 *Petitioner's Reply*

The Petitioner submitted that after due approval from the Commission, UPCL vide its letter no. 1674/UPCL/CE/CCP-II/14/2018-19 (Mobineers)/Part-(b), dated 01-03-2019 awarded the work for one-year monthly meter data analysis through various reports of 8000 consumers to M/s

Mobineers Info Systems Pvt. Ltd., New Delhi. The said work was extended for one more year vide UPCL's letter no. 1532/UPCL/CE/CCP-II/14/2018-19 (Mobineers)/Part-(b), dated 10-03-2021. The data analysis shall cover the following attributes:

a) Tamper analysis by way of PT missing, CT short, CT open, CT interchange /reversal, voltage imbalance, current imbalance, neutral disturbed, power failure, magnetic tamper, transactions, 35 KV spark Test, Cover open temper, high voltage/ frequency surges.

b) Percentage slots for which demand is less than a given percentage when demand is available. (Default 5%)

c) Percentage black out slots when power is available.

d) Current month consumption Vs last month consumption or current month consumption Vs that of same month last year is less than given percentage (Default 20%).

e) Contract demand violation.

f) Number of slots for which power factor is less than or more than or in between for a given value.

g) Consumption vis-a-vis usage index for the industry (process) wise, based on the data provided. Process wise load factor will be provided to vendor.

h) Ratio of Average/ contracted demand, maximum/ contracted demand, average/ maximum demand, average demand shall be calculated for the number of months as specified time to time.

i) Double meter /Main meter/ Independent feeder meter/ Net Off meter/ Bi-directional meter/ ABT meter comparison difference of load survey data for every 30 minutes / 15 minutes slot on per day & per month basis demand and consumption is more than given percentage (Default 3%) for entire months.

j) Consumption comparison of main meter with check meter/other end meter in terms of kWh, kVAh, MD on each & every month is to be complied checked and if difference of main meter w.r.to check meter/other end meter is more /less than the standardised value or as fixed by UPCL the check-out list is to be submitted.

k) Any other comparison, details, analysis, report etc. in desired format of UPCL from time to time for desired period and in desired timeline shall mandatorily be provided by the contractor.

The result of checking is tabulated as below:

Table 2.2: Status of Meter Data Analysis

S. No.	Particulars	May, 19 to August, 20	November, 20 to August, 21
1.	Total MRI checked by agency (No.)	100748	55016
2.	No. of consumer checked by agency	10547	7894
3.	No. of consumers against whom assessment proposed by agency	606	437
4.	No. of consumers checked by test division	536	213
5.	No. of consumers whose assessment found correct by test division	257	111
6.	No. of assessment done	239	66
7.	Remaining consumers on whom assessment to be done	18	44
8.	Value of assessment raised	Rs. 618.76 Lakh	Rs. 340.41 Lakh
9.	Amount realized	Rs. 444.93 Lakh	Rs. 234.86 Lakh

2.24.3 *Commission's Views*

As regards the suggestion for scrutiny of KCC data, **the Commission directs UPCL to continue monitoring KCC data including low load factor cases, meter tamper cases, etc. The Commission directs UPCL to submit the report on analysis and monitoring of KCC data on monthly basis by 15th of every month.**

2.25 Tariff Structure

2.25.1 *Stakeholder's Comments*

Shri Vijay Singh Verma submitted that in RTS-1 fixed charges for domestic consumers should be uniform with consumption within 0-300 units since data were provided by UPCL in their Petition with consumption up to 0-200 units are less in comparison to the realistic figures. He further submitted that Tariff for RTS-4 category should be reduced and tariff for RTS-4(A) should be increased in order that margin of 20% tariffs is maintained in between RTS-4 and RTS-4(A).

Shri Rajendra Kumar Chaudhary submitted that domestic consumer to be placed in similar slab. He further submitted that farmers, widows and army personnel to be put in slab with minimum rates.

Shri S.K. Agrawal submitted that for domestic consumers slab be changed from 0-100 units, 100-200 units to 0-200 units, 200-400 units.

2.25.2 *Petitioner's Reply*

The Petitioner submitted that the Tariff proposal submitted by the Petitioner for RTS-1 consumers (domestic) is to simplify and rationalize the tariff structure in accordance with the provisions laid down in the draft Tariff Policy, 2020. It also submitted that the Tariff structure comprising fixed and energy charges proposed by UPCL is on the basis of average cost of supply.

2.25.3 *Commission's Views*

The Commission has gone through the suggestions of the stakeholders and has duly considered the same while designing and rationalizing the tariff and has discussed the issues in detail in Chapter 6 of this Order.

2.26 Load Reduction and Load Enhancement

2.26.1 *Stakeholder's Comments*

Shri Vikas Jindal & Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that as per the supply voltage to the consumers provided in Tariff Order and the Regulations, no margin has been provided for the consumers requiring marginal enhancement of load. In case of even slight enhancement of load beyond the above specified limit, the consumer has to shift to higher supply voltage, which necessarily requires change of all existing power supply equipment's/ apparatus installed by him for the existing supply voltage and has to bear the cost UPCL incurs to change its installations-lines, substation & metering etc. for higher voltage. This puts heavy burden on such consumer. The Commission may consider this matter and allow such consumers to avail certain percentage of load enhancement (say up to 10% of existing load) without going into higher supply voltage category. This will be a great facility to the consumers desiring marginal load enhancement either to regularize exceeding maximum demand beyond contracted demand or for some minor expansion in the unit requiring load beyond existing threshold limits of contracted load for higher supply voltage.

Shri Ram Kumar Agarwal of Umashakti Steels Pvt. Ltd submitted that application for Enhancement/Reduction of sanctioned load should be online and disposal should be time bound.

At least, reduction in sanctioned load should be implemented from the date of application from the consumer because no feasibility study is required by the department in reduction of contracted load.

2.26.2 *Petitioner's Reply*

The Petitioner submitted that the charges of supply voltage is based on the charges approved by the Commission in its Tariff Order. It is to further submit that marginal enhancement of load seems unfit on account of grid stability and grid discipline. Hence, the existing methodology seems fit to charge consumers based on the supply voltage as categorised in the prevailing tariff order.

The Petitioner also submitted that as per the provisions of the UERC (The Electricity Supply Code, Release of New Connection and Related Matter) Regulation, 2020, the consumer may apply online for enhancement/reduction of load on the website of the Licensee. The relevant extract of the regulation is as below:

"4.1 Procedure for Enhancement / Reduction in Contracted Load

4.1.1 General

……

(5) The Consumer may apply online for enhancement/reduction of load on the website of the licensee. In the case of online application, the officer of the Licensee shall check the online application form and if any deficiency is observed, the Licensee shall intimate the same to the Applicant within 2 working days of filing of the Application via email & SMS. Thereafter, the consumer shall remove the deficiency within next 3 working days, failing which the application shall stand lapsed. On receipt of duty filled online application form, the Licensee shall issue an online acknowledgement immediately.

……"

As per provisions of Regulations, the Petitioner has made the provision in its software so that the consumer can apply online for new load / load enhancement / load reduction.

2.26.3 *Commission's Views*

The Commission is of the view that the issues raised regarding margin in Load

Enhancement are governed by the provisions of the UERC Supply Code Regulations as amended from time to time.

2.27 Street Light Dues and Maintenance

2.27.1 *Stakeholder's Comments*

Shri Vijay Singh Verma submitted that there is no provision for providing public lamps including street lighting in rural areas. It should be discarded because nobody is paying for consumption against these lights. Solar light should be provided in these areas with a suitable appropriate charge.

2.27.2 *Petitioner's Reply*

The Petitioner submitted that the responsibility to operate and maintain the streetlight lies with the Municipal Corporation (local body) of respective cities and UPCL has no jurisdiction over such matter. Further, in case solar streetlights are implemented or under implementation in rural areas, relevant details may be provided.

2.27.3 *Commission's Views*

The Commission is of the view that street lighting/public lamps system is the responsibility of the local bodies namely Municipal Corporations, Panchayats, etc. and these local bodies have elected public representatives as their heads and the staffs in these bodies are primarily Government employees. In case local bodies decides to handover operation & maintenance of the above system to UPCL, it conducts the operation and maintenance of streetlight/public lamp system as an agency to these local bodies and material cost incurred is borne by these local bodies while UPCL is entitled for labour charges to be recovered by these local bodies. It is for these bodies and the Government to decide amongst themselves as to who would be making payments for electricity consumed by them. However, the billed amount have to be paid to UPCL.

2.28 Tariff for Cane Crusher

2.28.1 *Stakeholder's Comments*

Shri Vijay Singh Verma submitted that under RTS-4, cane crusher, rice huller, chuff cutter, mushroom cultivation plant should be separated from PTW connection. It should be placed in another category.

2.28.2 *Petitioner's Reply*

The Petitioner submitted that the Commission may take a view on the same.

2.28.3 *Commission's Views*

The Commission observes that such usage are covered under Rate Schedule RTS-4 as per the terms and conditions provided in the Rate Schedule. The same is not a permanent activity and is for incidental agricultural processes.

2.29 Vigilance Cell

2.29.1 *Stakeholder's Comments*

Shri Vijay Singh Verma submitted that the Vigilance Cell of UPCL is not functioning properly and the presence of the Vigilance Cell is not visible at the field level, which results in theft at field level.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that complaints in relation to bills made to UPCL authorities are either not attended or if attended are not resolved. He further submitted that even though there is a system of CGRF and Ombudsman but still requested that there should be one day fixed by UPCL authorities in a week to address such complaints and the same should be replied to the consumer in a timebound manner.

2.29.2 *Petitioner's Reply*

The Petitioner submitted that in order to contain the AT&C losses, UPCL has undertaken a host of measures including the vigilance raids at field level. Such actions of UPCL have resulted into better distribution losses and collection efficiency over the past few years.

The Petitioner submitted that it agrees with the view of the stakeholder on complaints and further submitted that on specific complaint of the consumer, the matter may be checked and may be decided as per the results of the checking.

2.29.3 *Commission's Views*

The Commission has taken note of the concerns raised by the stakeholders and the initiatives taken by UPCL for reducing the theft and losses.

2.30 Cross Subsidy

2.30.1 *Stakeholder's Comments*

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that high levels of cross subsidies result in wastage of economic resources. In the subsidized sectors it encourages electricity consumption to a point where the value attached to incremental consumption is lower than the cost of supply. Lower power tariffs may result in indiscriminate pumping of ground water by farmers. On the other hand, higher tariffs (than the cost of supply) charged to commercial & industrial consumers pushes up their cost of product/services, which leaves them uncompetitive in today's era of globalisation. High cross subsidy may also lead to revenue loss for state utilities, as they incentivize industries to scale up 'captive power generation' to bypass the grid.

2.30.2 *Petitioner's Reply*

The Petitioner submitted that in the past it has made efforts to maintain the cross-subsidy reduction trajectory. However, due to Covid-19 pandemic in 2020, the Petitioner deemed it fit to provide relief to certain class of consumers and, therefore, level of cross subsidy has been slightly increased in some categories.

2.30.3 *Commission's Views*

The Commission has been designing the tariffs for previous years with gradual reduction in cross subsidies and similar approach has been followed while designing the tariffs for FY 2022-23 as deliberated in Chapter 6 of the Order.

2.31 Review of peak hours

2.31.1 *Stakeholder's Comments*

M/s Ganesh Roller Flour Mill submitted that peak hours in Uttarakhand during winter season should be reduced.

2.31.2 *Petitioner's Reply*

The Petitioner submitted that the peak hours are decided as per the peak demand during the season. During winters, the demand goes on peak in the morning also and, therefore, morning peak hours have been kept in the winter season whereas there is no peak in the morning during summer season, therefore, no morning peak hours have been kept during summer season. Similarly, the evening peak hours have been decided keeping in view the peak demand during different time slots in summer season and winter season.

The Commission vide its Tariff Order dated 27.02.2019 revised the Time-of-Day slots and reduced the morning peak hours from 3.50 hours to 3.00 hours and evening peak hours from 4.50 hours to 4.00 hours during winter months, i.e. from October to March.

The Petitioner further submitted that the Commission in its Tariff Order dated 27.02.2019 at para 2.8.1.3 has also held in the matter as follows:

"The Commission has analysed the actual daily hourly load curves in the State of Uttarakhand and has found that apparent morning peak demand exists in the State during winter months which exceeds the demand in evening peak. The Commission feels the need for Demand Side Management (DSM) and having ToD tariff as a measure for ensuring curtailment of morning as well as evening peaks. However, considering the suggestions received during the State Advisory Committee (SAC) meeting, the Commission has modified the peak hours and off-peak hours during winter season……."

2.31.3 *Commission's Views*

The Commission has analysed the actual daily hourly load curves in the State of Uttarakhand and has modified the peak and off-peak hours and charges. The details regarding the modified peak hour charges and off-peak hour rebates are elaborated in Chapter 6 of the Order.

2.32 Fuel Adjustment Charges

2.32.1 *Stakeholder's Comments*

Shri Ram Kumar Agarwal of Umashakti Steels Pvt. Ltd and Shri S.K. Agrawal submitted that no additional FCA/ Energy charges should be levied.

Shri Sanjay Kumar of M/s Ambashakti Glass Pvt. Ltd submitted that FCA charges should not be added in the electricity bill and as even during roastering and breakdown UPCL charges full charge during this period and also charges double in case maximum demand goes up for a moment.

2.32.2 *Petitioner's Reply*

The Petitioner submitted that the tariff has been proposed in line with the UERC MYT Regulation 2021. According to the UERC MYT Tariff Regulation, 2021:

> *"81. Fuel Cost Adjustment*
> *(1) The FCA charge shall be applicable on the entire sale of the Distribution Licensee without any exemption to any consumer.*
> *(2) The FCA charge shall be computed and charged on the basis of actual variation in fuel costs relating to power generated from own generation stations and power procured during any month subsequent to such costs being incurred, in accordance with these Regulations, and shall not be computed on the basis of estimated or expected variations in fuel costs.*
> *……"*

Further, the Petitioner submitted that FCA charges are usually applied to cater to the variation in coal prices. Since, Uttarakhand being a Hydro dominant state, the major power demand is fulfilled by purchasing power from the Coal Fired Thermal Generating Stations of NTPC and other CPSUs. In addition, the Petitioner also submitted that the Coal Fired Generating Station has to sign the Fuel Purchase Agreement. Hence, any variation in the cost of fuel leads to the ultimate loss of generation. Since, most of the Coal/Thermal Power Plant are situated outside the State of Uttarakhand, whose tariff is determined by CERC/SERC and, hence, it is outside the purview of UERC. However, any change in Fuel Charge is adjusted in the electricity bill as per the provisions of the UERC Tariff Regulation 2021 based on the FCA approved by the Commission.

2.32.3 *Commission's Views*

With regard to FCA recovery allowed by the Commission, it is clarified that the FCA adjustment of tariffs is allowed under Section 62(4) of the Electricity Act, 2003 and in consonance with the Judgement of Hon'ble ATE.

2.33 Industrial Feeder/Voltage Rebate

2.33.1 *Stakeholder's Comments*

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry submitted that losses at higher voltages are less, however, the rebates offered for availing supply at higher voltages than the base voltage is not commensurate with the benefit UPCL derives from supplying at higher voltages in terms of reduction in distribution losses. Accordingly, stakeholder proposed that either the cost to serve to various consumer categories is determined or the voltage rebate may be increased from 2.5% to 5% for supply at 33 kV, 7.5% to 10% for supply at 132 kV and 7.5% to 12% for supply at 220 kV.

Shri Kartikey Tomar of M/s PSR Innovations submitted that consumers connected to 11 kV lines with contracted load of 100 kVA to 1000 kVA should be provided with higher rebate.

Shri Man Singh of M/s ALPS Industries Ltd. & Shri Harindra K. Garg of SIDCUL Manufacturers Association of Uttarakhand submitted that the cost of service to HT consumer connected to high voltage is much less than the average cost of supply, since the distribution losses are much less in comparison to low voltage consumer. For 33 kV the rebate should be at least 5% and for 132 kV it should be 12% of Energy Charges.

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited proposed that that either a separate tariff slab should be defined for HT consumers connected at high voltage or the rebate should be allowed to compensate the tariff cost. For 33 kV the rebate should be minimum by 7.5% and for 132 kV it should be minimum @ 12% in energy charges. Even the cross subsidies should be eliminated in phased manner instead of being increased every year.

2.33.2 *Petitioner's Reply*

The Petitioner submitted that at present, voltage-wise losses are not available and Category-wise tariff has been calculated based on the average cost of supply and permissible level of cross subsidy. This is as per Regulation 91 of the UERC Tariff Regulations, 2021. In the absence of availability of voltage-wise losses, which is a mix of technical losses and commercial losses, the distribution losses are required to be charged on average basis from all category of consumers.

Rebate for taking supply at higher voltage was revised by the Commission in its Tariff Order dated 10th April 2014 from 1.5% to 2.5% and 5% to 7.5% for taking supply at 33 kV and 132 kV and above respectively. The Commission vide Order dated 27.02.2019 also held that the rebate levels of 7.5% and 2.5% (for 132 kV and 33 kV) are appropriate. The relevant extracts of the said Order are reproduced below:

"The Commission in its Order dated April 10,2014 considering the requests made by various

stakeholders and UPCL's response on the same had modified the provisions of voltage rebate and the Commission feels that the provisions of the prevalent voltage rebate are appropriate."

2.33.3 *Commission's Views*

The Commission has considered the suggestions made by various stakeholders and has rationalised the voltage rebates in Chapter 6 of this Order.

2.34 Load Shedding

2.34.1 *Stakeholder's Comments*

Shri Kartikey Tomar of M/s PSR Innovations submitted that frequent power cuts are often observed several times in a month by UPCL which indicates its administrative failure.

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. requested the Commission to allow 15% Contracted load to industries during emergency rostering. He further requested the Commission to direct UPCL not to disconnect power load during load shedding /curtailment of power completely as most of the sensitive equipment like transformers etc. gets damaged in non running conditions.

2.34.2 *Petitioner's Reply*

The Petitioner submitted that with regard to the availability of quality power, UPCL has been making consistent efforts to provide uninterrupted power supply to its consumers. The load shedding during FY 2020-21 is only 0.12% of the overall energy demand (16.56 MU). Further load shedding for FY 21-22 is 49.89 MU and UPCL has been making consistent efforts to provide uninterrupted power supply to its Consumers. The Petitioner also mentioned that no scheduled power cuts are being imposed and rostering is being done only due to emergency breakdown / shutdown.

With regard to allowing 15% Contracted load, the Petitioner submitted that the Commission may take a view on the suggestions of the consumer and ensure that the Petitioner has no financial impact and it remains revenue neutral.

2.34.3 *Commission's Views*

In this regard, the Commission in its Tariff Order dated 18.04.2020 has already directed the

Petitioner to obtain prior approval of the Commission for load shedding to be carried out continuously for certain number of hours in a day for 15 days or more. Further, UPCL needs to ensure that load shedding is eliminated so that consumers are not impacted due to intermittency of supply. However, with respect to allowing the usage of 15% power during load shedding period, the Commission is of the opinion that at present UPCL is still having deficit in winter months, so it will not be possible to allow this facility till the entire deficit is wiped out.

2.35 Voltage-wise Cost of Supply

2.35.1 *Stakeholder's Comments*

Shri Vikas Jindal & Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that in all the Tariff Orders issued by the Commission, the Licensee has been directed to workout voltage-wise and category-wise losses and cost of supply for fixation of category-wise tariffs. However, the Licensee did not comply with the direction. On this account, the Commission has been fixing tariff on pooled average losses for all the categories. Section 61(g) of Electricity Act 2003 states that appropriate Commission should be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply. The Licensee has again ignored the direction of the Commission and the current ARR and Tariff proposed does not depict any such concrete exercise by the Licensee. The Commission may again make assumptions for HT losses while approving the ARR and Tariffs for FY 2022-23. Such assumptions, which are not based on facts and figures may be detrimental to the interest of the HT consumers. The stakeholder requested the Commission to take appropriate action to protect interest of consumers and compliance of provision of Section 61(g) of the Electricity Act, 2003 by the Licensee.

2.35.2 *Petitioner's Reply*

The Petitioner submitted that at present, voltage-wise/category-wise losses are not available and Category-wise Tariff has been calculated on the basis of average cost of supply and permissible level of cross subsidy. This is as per Regulation 91 of the UERC Tariff Regulations, 2021. In the absence of availability of voltage-wise losses, which is mix of technical losses and commercial losses, the distribution losses are required to be charged on average basis from all categories of consumers.

2.35.3 *Commission's Views*

The Commission has taken note of the concerns raised by the stakeholders. In this regard it would be relevant to mention that not only voltage wise losses are required for fixing voltage wise tariffs but segregation of voltage wise costs is also essential for the same. However, to compensate voltage wise losses, voltage wise rebates have been allowed to the industrial consumers. **Accordingly, the Commission once again directs UPCL to compute Voltage-wise losses & also segregate voltage wise costs for each category of consumers and submit the data on voltage-wise losses and cost of supply along with next Tariff Petition failing which action may be initiated against it.**

2.36 Separate Tariff for EHT Industrial Consumers

2.36.1 *Stakeholder's Comments*

Shri Vikas Jindal & Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Rajeev Gupta of M/s Kashi Vishwanath Textile Mill submitted that as UPCL is finding it difficult to workout voltage-wise and category-wise cost of supply to various categories of consumers for fixation of their tariff, it is proposed that the Commission may consider to evolve a separate tariff at least for EHT (132 kV & 220 kV) industrial consumers. There are few (about 9-10) industries in the State that are getting supply directly from 220 kV and 132 kV grid substations under PTCUL through dedicated feeders. The line losses on the feeders are around 0.5% - 1.0%. The stakeholders also submitted that it will not be a difficult task for UPCL to calculate cost of supply to these EHT consumers on the basis of which a separate tariff can be evolved by the Commission. This will be in the interest of such consumers. They further submitted that such consumers should not be made to suffer due to not working out voltage-wise/category-wise cost of supply by UPCL in spite of repeated orders by the Commission. Therefore, EHT industries may be categorized as a separate category in tariff schedules and distinct tariffs can be formulated for them based on actual cost of supply as per the line losses in their feeders and other O&M expenses in maintenance of supply and other related services to them by UPCL and PTCUL. The Commission may consider this matter to provide relief to EHT industries who have made huge expenditure towards construction of EHT feeders from their substations, establishment of EHT substations and step-down transformers in their premises for supply at desired voltage.

2.36.2 *Petitioner's Reply*

The Petitioner submitted that at present, voltage wise losses are not available and Category wise Tariff has been calculated on the basis of average cost of supply and permissible level of cross subsidy. This methodology is as per Regulation 91 of the UERC Tariff Regulations, 2021 according to which, in the absence of availability of voltage wise losses, which is mix of technical losses and commercial losses, the distribution losses are required to be charged on average basis from all category of consumers.

The Petitioner further submitted that rebate for taking supply at higher voltage was revised by the Commission in its Tariff Order dated 10th April 2014 from 1.5% to 2.5% and 5% to 7.5% for taking supply at 33 kV and 132 kV and above respectively.

2.36.3 *Commission's Views*

The Commission clarifies that the Commission has already provided substantial rebates to EHT consumers which do compensate such consumption to a large extent and, therefore, the Commission feels that the provisions of the prevalent voltage rebate are appropriate and, therefore, there is no need for any separate tariff category for EHT consumers. Further, it would be relevant to mention that not only voltage wise losses are required for fixing voltage wise tariffs but segregation of voltage wise costs, like HT lines and substations/O&M expenses, etc. is also essential for the same.

2.37 Load Factor based Tariff

2.37.1 *Stakeholder's Comments*

Shri Vikas Jindal & Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Rajeev Gupta of M/s Kashi Vishwanath Textile Mill submitted that the load factor-based tariff has increased the cross-subsidy burden on HT industries. Thus, the concept of load factor-based tariff as introduced for HT industries being contrary to equitable principles, may be reviewed by the Commission. It was further submitted that on the representation of industries on Tariff Proposals, in the earlier Tariff Orders, the Commission had justified load factor-based tariff to HT industries on the ground that the utility has to procure marginal power at a costlier rate due to increased consumption by the industrial consumers in the State. In this regard, it is submitted that upon entering into an agreement with the consumer to supply power, the onus is on the Licensee to arrange for power up to the agreed contracted demand. The stakeholder also submitted that procuring marginal power at a costlier rate due to increased consumption by the industrial consumers defies logic and further, the Petitioner did not provide any data to prove that such marginal power is procured exclusively for HT industries to which load factor-based tariff has been levied while all other categories of consumers also draw power from the utility without any restriction of load factor. The stakeholders submitted that the Commission should provide telescopic tariff for charging incremental consumption beyond specified load factor on higher rates instead of charging the whole consumption at a higher rate of energy charge for the particular load factor slab. The stakeholders further submitted that if load factor-based tariff is inevitable, there may be three slabs of load factors for energy charges up to 40%, above 40% to 60% & above 60% as were prevailing since introduction of load factor base tariff approved by the Commission.

Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. submitted that the formula considered by the Commission for Load Factor calculation results in paying of higher energy charges while using 80% of the contracted demand and needs to be rectified as below:

$$Load\ factor = \frac{Consumption\ during\ billing\ period\ \times 100}{\begin{array}{c}Billable\ demand\ or\ Contracted\ demand\ if\ the\ billable\ demand\ is\ higher\\ than\ the\ contracted\ demand\ \ \times No.\ of\ hours\ in\ the\ billing\ period\end{array}}$$

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that most of the prominent industrial active States have defined tariff slab load wise, the cost of service to HT consumer connected at high voltage is much less than the average cost of supply, since the distribution losses are very much less in comparison to low voltage consumers. He further requested that Commission may determine less rates for high load factor and high rates for low load factor to promote energy consumption by HT industries who are the maximum contributor of revenue to UPCL.

2.37.2 *Petitioner's Reply*

The Petitioner submitted that in its tariff proposal for FY 2021-22 they had proposed lower tariff for higher load factor and vice versa, but the Commission did not accept the view of UPCL and continued with its previous approach, i.e. Higher energy charge for Low Load Factor and vice versa. The Commission in its Tariff Order dated 26.04.2021 at para 5.1.3.5 held as follows in the matter:

> *"The two-part tariff tends to encourage high consumption as the same reduces the effective per unit composite rate. Accordingly, to correct this, tariff also needs to increase in a manner so as to achieve a near uniform composite rate. To achieve this, demand and energy charges will have to increase with every small increase in contracted demand or load utilization percentage. Although theoretically possible, such an approach would make the tariffs too complex, incomprehensible and will pose serious problems in implementation. There is, therefore, a trade-off between the simplicity of the tariff structure and precision in correcting the above distortion. The Commission's attempt has been to strike a balance between the two by choosing a uniform rate of demand charge and different rates of energy charges linked to the consumption levels represented by the Load Factor."*

2.37.3 *Commission's Views*

This issue had been dealt in detail by the Commission in the in-house paper issued during the MYT Order for the second Control Period. Since, the marginal cost of power is higher than the average cost of power, therefore, to have cost reflective tariffs, the energy charges should increase with load factor. Further, the Commission has deliberated on this issue in detail in Chapter 6 of the Order.

2.38 Tariff to Hotels & Cinema

2.38.1 *Stakeholder's Comments*

Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry has submitted that the consumers of these categories are billed under non-domestic category, which is the highest tariff prevailing in UPCL. In the plain areas of Uttarakhand, there is more consumption of electricity in summers in these categories due to running of air conditioners but the consumption is reduced in winters. On the other hand, in the hills there is more consumption in winters due to usage of heaters and geysers and less consumption in summers due to no usage of air conditioners. Thus, seasonal variation needs to be considered in fixation of tariff to such consumers.

2.38.2 *Petitioner's Reply*

The Petitioner submitted that UPCL is a commercial organization and is required to meet its Annual Revenue Requirement out of the revenue realized from the consumers through electricity tariffs. The consolidated revenue deficit for FY 2022-23 (including the carrying cost of FY 2020-21) at existing tariff has been estimated at Rs. 447.56 Crore. For recovery of the said gap of Rs. 447.56 Crore, UPCL has proposed an overall tariff hike of 6.02%. As against the average tariff hike of 6.02%, no tariff hike for BPL & PTW consumer, nominal hike of 2.5% for 0-100 slab in other Domestic Category Average hike of 5-6% in other slabs of other Domestic category, Average hike of 6.4% in non-domestic category, Average hike of 5.0% in LT Industrial category, Average hike of 5.7% in HT Industrial category is proposed and further, increase in all other categories has been proposed in line with the Tariff Policy and the proposed ARR to be recovered in FY 2022-23.

The revenue gap so computed is the result of difference between increased / projected cost and revenue at existing tariff. The Petitioner being a regulated entity needs to be revenue neutral and, hence, approved gap will have to be allowed in terms of tariff increase as per the principles laid down in Tariff Policy and approach adopted by the Commission in past.

2.38.3 *Commission's Views*

The Commission has gone through the suggestions of the stakeholders and has duly considered the same while designing and rationalizing the tariff and has discussed the issues in detail in Chapter 6 of this Order.

2.39 Consumer Security Deposit

2.39.1 *Stakeholder's Comments*

Shri Vikas Jindal & Shri Ashok Bansal of M/s Kumaun Garhwal Chamber of Commerce & Industry and Shri Rajeev Gupta of M/s Kashi Vishwanath Textile Mill submitted that at present cash security equal to two months average billing in a financial year is required by UPCL. The security is for the purpose of providing security to UPCL in case of default. Industrial consumers pay initial security @ Rs. 1000/- per kVA at the time of connection in cash and, thereafter, on year-to-year basis as per above criteria. They find it difficult to arrange cash security. The stakeholders submitted that UPCL's bill can be secured through Bank Guarantee also. Bank Guarantee will facilitate the industries and at the same time serve the purpose of UPCL, and the Commission may consider this matter. Presently, the Commission has allowed interest on consumer security deposits at the Bank Rate, which is less than the rate at which banks give credit to the consumers. On the other hand, UPCL has been allowed delayed payment surcharge, which is also interest payable by the consumer at the rate of 1.25% per month, i.e. 15% per annum for delay in payment of bills to UPCL. Thus, there is a big anomaly in the rate of interest payable to the consumers on their security deposits and rate of interest chargeable by UPCL for delay in payment of bills. The Commission may consider removing this anomaly and allowing the same rate of interest on consumer security deposit and for delayed payments for consumer bills.

Shri Shakeel A. Siddiqui of M/s Kashi Vishwanath Textile Mill (P) Ltd. requested the Commission to allow bank guarantee against the average bills, this will not only secure payment of bills but also have less financial burden on the consumer. Further, for large consumers Commission may allow billing on 15 days basis with one month security amount.

Shri Kartikey Tomar of M/s PSR Innovations submitted that facility of bank guarantee on security deposit to be made available for Consumers.

Shri Ram Kumar Agarwal of Umashakti Steels Pvt. Ltd submitted that interest on security deposit is on a very lower side. Either, the ROI should be increased or consumers should be allowed to deposit Bank Guarantee (so that it will help industries in availability of cash funds for working capital requirements).

2.39.2 *Petitioner's Reply*

The Petitioner submitted that as per Section 47(4) of the Electricity Act, 2003, the Distribution Licensee is required to pay interest on the security deposit. As interest cannot be paid on the money held with UPCL as Bank Guarantee / Letter of Credit, the security deposits should only be in the form of cash / bank draft/RTGS/NEFT or any other electronic mode as accepted by UPCL. This is in accordance with the provisions of UERC (The Electricity Supply Code, Release of New Connections and Related Matters) Regulations, 2020. Interest on security deposits is being allowed as per Section 47(4) of the Electricity Act, 2003 and Commission's order dated 27-07-2007.

Further, the Commission in its Tariff Order dated 27-02-2019 at para 2.16.1.3 has also held in the matter as follows:

> *"The Commission is of the view that the issues raised regarding quantum and mode of payment of Security Deposit are governed by the provisions of the Supply Code Regulations and, hence, cannot be modified through Tariff Order."*

2.39.3 *Commission's Views*

The Commission is of the view that the issues raised regarding mode of payment of Security Deposit are governed by the provisions of the Supply Code Regulations and, hence, cannot be modified through Tariff Order. Further, it is to be recognised that DPS is not a source of income for UPCL, but a penalty mechanism to deter the consumers from defaulting in payments of their bill on time and hence, interest on security deposits and DPS cannot be equated.

2.40 Promotion of Prepaid Meters

2.40.1 *Stakeholder's Comments*

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that the option of prepaid meter may be a good tool for UPCL to recover its amount in advance, hence the same needs to be promoted for all categories of consumers including HT/LT Consumers. It can be a good check in curbing bad debts too.

2.40.2 *Petitioner's Reply*

The Petitioner submitted that they agree with the view of the stakeholder and has proposed Prepaid Metering Scheme as a part of the MYT Tariff Petition under new Distribution scheme launched by Central Government.

2.40.3 *Commission's Views*

The Commission has taken note of suggestion received from the stakeholder regarding improvement in metering and billing through prepaid meters and **directs UPCL to roll-out prepaid metering scheme.**

2.41 Absence of Cost Reflective Tariffs

2.41.1 *Stakeholder's Comments*

Shri Shakeel A. Siddiqui of M/s Kashi Vishwanath Textile Mill (P) Ltd. submitted that the tariffs set by the Commission does not reflect the costs incurred since there are several expenditures, which are not accounted for in the absence of information or due to some regulatory requirement and is not considered or is carried forward. This results in creation of large Regulatory gaps and it may be one more reason that they are being avoided to save the tariff shocks to consumers. These regulatory gaps are not beneficial for the utilities as they defer cost recovery and put credibility of the DISCOM at risk. On the other hand, they burden the consumers unnecessarily with the carrying costs. In the previous year tariffs, it came to notice that such costs was later considered and additional tariff burden was levied on the consumers in the form of Additional Energy Charge.

Shri Shakeel A. Siddiqui of M/s Kashi Vishwanath Textile Mill (P) Ltd. further submitted that there is an urgent need to determine costs attributable to every consumer category for cost reflective tariff design. For this, there is a pressing need to shift to more advanced methodologies to determine cost of supply from the current practice of Average Cost of Supply, which burdens industrial and commercial consumers. He further submitted that in the absence of any scientific methodology in arriving at voltage wise Cost of Service, voltage wise tariffs cannot be proposed merely on assumptions. Therefore, a necessary mechanism needs to be developed for segregating the assets usage at different HT voltages and calculation of losses attributable to flow of energy at different voltages.

2.41.2 *Petitioner's Reply*

The Petitioner submitted that the ARR and Tariff are as per the provisions of the Tariff Regulations notified by the Commission and past practices, methodology and normative approach adopted by the Commission. Certain parameters/elements of the ARR are claimed on actual basis as per the actual expenses incurred. However, certain expenses are allowed on normative basis so as to cover the same to the extent of actual expenses. These expenses are subject to the prudent investigation of the Commission. The tariff so determined by the Commission is reflective of the Cost of Supply and the ARR for the year.

The Petitioner submitted that at present, voltage wise losses are not available and Category wise tariff has been calculated on the basis of average cost of supply and permissible level of cross subsidy. This methodology is as per Regulation 91 of the UERC Tariff Regulations, 2021 according to which, in the absence of availability of voltage wise losses, which is a mix of technical losses and commercial losses, the distribution losses are required to be charged on average basis from all the category of consumers.

2.41.3 *Commission's Views*

The Commission appreciates the concern of the stakeholder and informs that certain parameters/element of the ARR are claimed on actual basis as per the actual expenses incurred. However, certain expenses are allowed on normative basis so as to cover the same to the extent of actual expenses. These expenses are trued-up after prudent investigation by the Commission. In this Tariff Order, the Commission has trued-up for FY 2020-21 in accordance with the provisions of the UERC Tariff Regulations, 2021 and past practices and methodology adopted by the Commission. It is further clarified that no undue carrying cost is being allowed in case the Petitioner has defaulted in submitting timely information.

2.42 Formation of Consultative Committee

2.42.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that in the past they had requested the Commission to constitute a consultative committee, comprising of utility representatives, UERC and stakeholders. This Committee will sit at frequent intervals and where the utilities will make the presentation on their working and issues. This Committee will facilitate better understanding between stakeholders and utilities.

2.42.2 *Petitioner's Reply*

The Petitioner submitted that the Commission has already constituted State Advisory Committee as per the provision of Section 87 of Electricity Act 2003. This Committee includes the members to represent the interests of Commerce, Industry, Transport, Agriculture, Consumers, Non-Governmental organisation etc. In the previous tariff order dated 26 April, 2020, the said committee gave many suggestions while discussing the ARR and Tariff petition for FY 2021-22. UPCL had submitted the replies of all these suggestions to the Commission which are mentioned at the last para 2.48 of MYT Tariff Petition for FY 2022-23.

2.42.3 *Commission's Views*

The Commission has taken a note of this and agrees with the suggestion that there should be a committee wherein issues pertaining to supply of electricity to various consumers are deliberated more often for the betterment of consumer satisfaction. **The Commission, therefore, directs UPCL to submit a proposal to the Commission for constitution of such committee within 60 days from the date of this Order.**

2.43 True-Up

2.43.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that the Petitioner has claimed expenses in true up as per audited accounts. The Petitioner should provide justification for the difference between the expenses approved by the Commission and the actual expenses incurred. He further requested the Commission to not allow these expenses in true up.

2.43.2 *Petitioner's Reply*

The Petitioner submitted that it has been providing all justification for deviation in the true-up expenses which is based on the audited accounts. The figures approved in the ARR are based on the projections / estimation of both utility & the Commission as per prevailing tariff regulations and previous years actual audited expenses as base figures.

2.43.3 *Commission's Views*

The Commission, in this regard, would like to clarify that the actual expenses, both of revenue and capital nature claimed by the Petitioner are examined separately in detail while carrying out the truing up of expenses and revenues and only legitimate expenses are allowed in accordance with the UERC Tariff Regulations applicable from time to time.

2.44 Promotion of Renewable Energy

2.44.1 *Stakeholder's Comments*

Shri Shakeel A. Siddiqui of Galwalia Ispat Udyog Private Limited submitted that attempts need to be made to promote the solar energy to farmers and domestic consumers that will not only reduce cross subsidies but also reduce AT&C losses. HT industries need to be given opportunities to establish their own solar power generation units and use the same power for their production. It will help the State to be self-generator of power and become power rich. Currently under open access regulation if one has its power generation unit and manufacturing unit at different places it needs to pay wheeling charges and bear distribution losses which makes the power not viable for that particular industry. Hence, to promote such arrangement a keen interest of Commission is required. He further requested that if any manufacturing unit wishes to commission its solar power, then unit relaxation in applicable charges, i.e. wheeling charges and distribution losses to be provided so that more and more industry come forward as renewable energy generator.

Shri Vikas Jindal of M/s Kumaun Garhwal Chamber of Commerce and Shri Rajeev Gupta of M/s Kashi Vishwanath Steel Pvt. Ltd. requested the Commission to issue certain guidelines /order promoting incoming solar power plant by giving following relief: -

- Big Solar Power Plant should be exempted from levy of the cost for construction of maximum transmission line length to enable captive use of power.
- Big Solar Power Plant should be exempted from transmission charges and transmission losses.
- Big Solar Power Plant should be exempted from distribution charges and distribution losses which at present is 13.75%.
- Big Solar Power Plant should be exempted from any additional energy charges and cross subsidy.

Shri Sunil Kumar Gupta of Teesri Aankh ka Tehalka submitted that transparency should be adopted in the bills of UPCL Grid Connected Rooftop Solar connected consumers. He further submitted that there are many irregularities and arbitrariness in it, after removing it, refund should be given to the consumers. He further requested the Commission to issue order in public interest to promote such solar generating scheme.

2.44.2 *Petitioner's Reply*

The Petitioner submitted that the Uttarakhand Government introduced the Solar Policy 2013 as amended from time to time as when required. UPCL being a commercial organisation supports more and more purchase of power from RE sources, however, in the matter of development of Solar Project, the matter can be raised in front of Government of Uttarakhand, since the solar policy issued by the Government of Uttarakhand is not under the purview of the Commission and UPCL.

The Petitioner further submitted that the Commission may take a view on the suggestion of the consumer and ensure that the Petitioner has no financial impact and it remains revenue neutral.

2.44.3 *Commission's Views*

The Commission in order to promote Renewable generation vide its UERC (Tariff and Other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel-based

Cogeneration Stations) Regulations, 2018 dated September 06, 2018 has increased RPO Targets of the Petitioner substantially which will increase procurement of power from RE Sources. Further, the matter of allowing any industries to set up a solar generating station is not a tariff related matter and is governed by UERC RE Regulations and any industries willing to install a solar plant may take necessary action in accordance with the RE Regulations and Policies of the State Government in this regard. For any dispute between the developer and the licensee, they may approach the Commission for adjudication under the Act.

2.45 Miscellenous

2.45.1 *Stakeholder's Comments*

Shri R. K. Singh of Tata Motors Ltd. submitted that it is clear from tabulated data that UPCL is planning to allocate Rs. 1.81 crore for safety measures. Since UPCL infrastructure is getting older & weaker due to ageing and exposure to open environment, UPCL is requested to revise this amount and allocate more budget for safety measures. Further, LT protection system on transformer be either sustained as Rs. 3.49 Crores or it should be increased w.r.t. FY 2021-22.

Shri Nisheeth Kumar Maheshwari submitted that advocates are professionals and engaged in professional activity. As per the decision of the Hon'ble Supreme Court C/FA/6140/2019 judgement dated 21.12.21 in M.A Electricity Board & and various other high court, it is clearly stated that the office of lawyer or a firm of lawyer is not a commercial establishment and, therefore, the rates applicable to the commercial consumer cannot be charged in respect thereof. He further requested the Commission to issue guidelines & circular to UPCL to consider & treat advocate chamber as domestic/professional activity and rates need to be implemented as domestic rates.

Shri B.P Maithani of RTI club submitted that there are instances of gross financial frauds committed by the Officers and employees of UPCL. In one case it was discovered that UPCL withdrew Rs. 50 Crore from PNB and deposited the same in the EMF account of the same bank. On the same date UPCL withdrew Rs. 50 Crore from the EMF account of PNB and opened a new FD account in the Bank of Baroda. The next day it opened an overdraft account in the BOB and again the next day it took an overdraft of Rs. 50 Crore from the BOB and placed that amount again in the EMF account of PNB. Now this whole exercise is inexplicable on rational considerations. The only motive appears to be to extend double benefits to BOB first in the form of FD of Rs. 50 Crore and then by taking an expensive overdraft of Rs. 50 Crore for no perceptible reasons. As per information accessed through RTI, BOB already had Rs. 100 Crore of UPCL's fund in FD on that date and if at all there was any emergency, Rs. 50 Crore could have been withdrawn from that FD account to meet the exigency. By this unscrupulous manoeuvring, the UPCL management created a perpetual liability unnecessarily costing the corporation Rs. 1 Crore (2 % of Rs. 50 Crore) per month in the form of the loss of rebate of 2% on timely payment of bills of electricity in addition to higher interest and surcharge payable on overdraft.

2.45.2 *Petitioner's Reply*

The Petitioner submitted that it has planned Rs. 1.81 Crore for safety measures keeping in mind the implementation and capital expenditure under the RRDS Scheme, in 4th Control Period which covers schemes for loss reduction and system strengthening as well. However, the infrastructure of UPCL is getting older and weaker due to ageing and exposure to open environment, it submitted that the actual expenses incurred towards safety measures will be claimed based on actuals at the time of true up of respective years.

The Petitioner submitted that as per existing tariff order, rate schedule RTS -1 (Domestic) and RTS-2 (non-Domestic) category applies to the followings:

RTS-1 (Domestic)

This schedule shall apply to supply of power to:

i. Residential premises (including premises of Departmental Employees & Pensioners of UPCL, PTCUL and UJVN Ltd.) for light, fan, power and other domestic purposes including common facilities (such as Lifts, Common Lighting and Water Pumping system).

ii. Single Point Bulk Supply above 75 kW for Residential Colonies, Residential Multi-storeyed buildings where energy is exclusively used for domestic purpose including common facilities (such as Lifts, Common Lighting and Water Pumping system) of such Residential Colonies/Residential Multi-storeyed Buildings.

iii. Places of worship, i.e. Mandir, Masjid, Gurudwara, Church, etc. (only for standalone places of worship and not for the places of worship which have other facilities such as Dharamshala, Community Hall, Dormitories, etc. attached with it).

iv. Gaushalas/Gausadans and Dairy Farms having load upto 4 kW and consumption upto 600 kWh/month.

v. Home-stay registered under Deendayal Upadhyay Home-Stay Development Policy Rules, 2018.

(This rate schedule shall also be applicable to consumers having contracted load upto 2 kW as also consumption upto 200 kWh/month and who are using some portion of the premises mentioned above for non-domestic purposes. However, if either contracted load for such premises is above 2 kW or consumption is more than 200 kWh/month, then the entire energy consumed shall be charged under the appropriate Rate Schedule unless such load is segregated and separately metered).

RTS-2 (Non- Domestic)

This schedule should apply to supply of power to:

i. Government/Municipal Hospitals.

ii. Government/Government Aided Educational Institutions.

iii. Charitable Institutions registered under the Income Tax Act, 1961 and whose income is exempted from tax under this Act.

iv. Small Non-Domestic Consumers with connected load upto 4 kW and consumption upto 50 units per month.

v. Other Non-Domestic Users including single point bulk supply above 75 kW for shopping complexes/multiplex/malls including common facilities (such as lifts, common lighting and water pumping system).

vi. Independent Advertisement Boards/Hoardings - All commercial (road side/roof top or on the side of the buildings etc.) standalone independent advertisement hoardings such as private advertising sign posts/sign boards/sign glows/flex that are independently metered through a separate meter.

Hence, it is clear that a person who is not covered under domestic category is covered under non-domestic category whether it is commercial organization or not. However, the Petitioner submitted that the Commission may take a view on the suggestion of the consumer and ensure that the Petitioner has no financial impact and it remains revenue neutral.

The Petitioner further submitted that the interpretation of consumer is incorrect. If utility invests in Fixed Deposit for any time period it will earn Interest on such FD and the Interest is accounted in Non-Tariff Income which reduces the ARR. On the contrary the same is benefiting to consumer and not increasing any burden by way of tariff.

2.45.3 *Commission's Views*

The Commission has dealt with the various issues raised in the subsequent Sections of this Order. However, **UPCL is directed to submit a detailed report on the issues raised by Shri B.P Maithani of RTI Club above alongwith the system adopted in making a new FD within one month of the date of Order.**

2.46 Views of State Advisory Committee

During the State Advisory Committee Meeting held on March 09, 2022, the Members made the following suggestions on the Business Plan and MYT Petitions for Fourth Control Period from FY 2022-23 to FY 2024-25:

a) Tariff hike needs to be relooked by the Commission and should not be increased, especially in case of Mushroom cultivation category. It is high time utilities come up with ideas and solutions to reduce tariff.

b) The cross subsidy existing within the Domestic Category should be narrowed down.

c) UPCL should justify the additional capitalisation nature items like Transformer worth Rs. 19.92 Crore expenses been booked under R&M expenses.

d) UPCL is required to submit its detailed year wise computations towards additional expenditure claims considering all past allowances.

e) Additional capitalization should not be allowed after the cut-off date.

f) Break-up of IT and Non-IT Assets provided by UPCL is not correct and needs to be relooked.

g) Capitalisation for computation of tariff should only be considered once Electrical Inspector Certificates have been issued.

h) Asset-Decapitalisation should be properly accounted for while approving tariff.

i) UPCL should submit the reason for total reliance on short term power purchase agreement instead for opting for long and medium-term power purchase agreements. These short-term power purchase agreements are expensive and thus UPCL should ensure that very limited short-term agreements are implemented.

j) UPCL should renegotiate or surrender their high price PPA such as for Anta, Auraiya and Dadri. Further, UPCL should explore Power purchase option for future so as to ensure that consumer gets Regular power at reduced rates.

k) UPCL is only paying fixed charges to the State Gas Power Stations without availing much of its power owing to higher cost.

l) Transmission & Line losses Trajectory to be reduced further from 13.5%.

m) The existing line losses are considerably higher considering around 54% of the total sales is to HT consumers.

n) UPCL should convert their substation to profit centre wherein those responsible for substations performing better are awarded while those substations performing bad are penalized.

o) Instances of very low ABR for some of the divisions needs to be looked into.

p) Online billing is not proper and consumers have to face lot of technical glitches in the online Portal.

q) UPCL should justify their staff shortage as no staff is available at night to file complains. People hired on contractual basis lack credibility and are not efficient.

r) Morning Peak hours should be abolished or should be fixed in such a manner that the single shift industry gets clear 8 hours for continuous operation at normal tariffs.

s) UPCL should justify the frequent power cuts for HT industry compared to other categories. This is not beneficial to UPCL as the collection efficiency is highest in HT industry compared to other categories.

t) UPCL should improve their collection efficiency especially from street lights consumers. Further, UPCL should establish some Bill Collection centre so as to improve their collection efficiency.

u) Power theft, line losses and defective equipment are the main reason of inefficiency and UPCL should provide a roadmap to tackle these issues.

v) UPCL should justify the write off of government dues. The write off of government dues & industries should not be allowed in Tariff. UPCL has dues to be paid to the State Government, UPCL should adjust the pending receivables against the State Government.

w) Rate of interest allowed need to be relooked as rate of interest is showing downward trend. UPCL should find ways to get less interest rate in the market.

x) UPCL should clarify the abnormal increase in electricity charges from Rs. 4.65 Crore in FY 2019-20 to Rs. 10.71 Crore in FY 2020-21.

y) UPCL is required to provide details of Professional/consulting fee claimed under A&G expenses. Further, category wise details of Covid relief that has been provided to consumers should also be provided.

z) There is a need for substantive study of the issues of UJVN/UPCL. The study will further help in deciding the roadmap to tackle the issues faced by the utilities. Further, Economic intelligent unit be established in the organization.

aa) Need to establish a consultative forum wherein consumer representatives and Petitioner can more frequently discuss the challenges being faced and try to remedy the problems.

2.46.1 ***Petitioner's Reply***

The Petitioner submitted the following replies:

a) UPCL submitted that they have established the roadmap for efficiency improvement. Based on the roadmap they have projected the trajectory of their losses in the upcoming MYT Control Period and in upcoming years under RDSS scheme these losses will further be reduced.

b) UPCL submitted that collection efficiency currently is at 95.55% which they are planning to increase to 98%.

c) UPCL submitted that efficiency improvement is there as today UPCL has brought down losses to around 13.5% losses out of which 7-8% are technical losses which are uncontrollable.

d) Regarding Capitalization UPCL submitted that pre-existing system needs continuous improvement to ensure quality supply to consumers hence these are the necessary expenditures. UPCL further submitted that assets are capitalized only after certificates of the Electrical Inspector are issued and Commission directives are followed while claiming such expenditures.

e) UPCL further submitted that the excess power purchase cost was mainly on account of higher gas price in international markets.

f) UPCL further submitted that owing to mismatch in grid demand and supply in real time owing to consumption pattern of the consumer, UPCL has to purchase power from short terms sources as well.

2.46.2 *Commission's Views*

The issues raised by the Members of the Advisory Committee have been taken into consideration while deciding on the Petitioner's claims in the Petition filed for approval of Business Plan for the Fourth Control Period from FY 2022-23 to FY 2024-25 and Truing Up for FY 2020-21, APR for FY 2021-22 and Tariff for Fourth Control Period from FY 2022-23 to FY 2024-25 as detailed in subsequent Chapters of this Order.

3. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Business Plan for Fourth Control Period

3.1 Statutory Requirement

The Commission had notified the Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2018 on September 14, 2018, in accordance with the provisions of the Act. The above Regulations were applicable for determination of Tariff for the third Control Period from FY 2019-20 to FY 2021-22. The Commission had further notified the Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2021 on September 14, 2021, applicable for determination of Tariff for the fourth Control Period from FY 2022-23 to FY 2024-25.

3.2 Multi Year Tariff Framework

As regards the Multi Year Tariff Framework, UERC Tariff Regulations, 2021 specifies as follows:

"4. Multi-year Framework

The Multiyear tariff framework shall be based on the following:-

a) Business plan submitted by the applicant for the entire Control Period for the approval of the Commission prior to the beginning of the Control Period ;

b) Applicant's forecast of expected ARR for each year of the Control Period, based on reasonable assumptions and financial & operational principles/parameters laid down under these Regulations submitted alongwith the MYT petition for determination of Aggregate Revenue Requirement and Tariffs for first year of the Control Period ;

c) Review of Control Period ending on 31.03.2022 shall also be taken up alongwith the ARR/Tariff petition for the first year of ensuing Control Period;

d) Trajectory for specific parameters as may be stipulated by the Commission based on submissions made by the Licensee, actual performance data of the Applicants and performance achieved by similarly placed utilities;

e) Annual review of performance shall be conducted vis-à-vis the approved forecast and categorization of variations in performance into controllable factors and uncontrollable factors;

Sharing of excess profit or loss due to controllable and uncontrollable factors as per provisions of these Regulations.

…

7. Determination of Baseline

The baseline values (operating and cost parameters) for the base year of the Control Period shall be determined by the Commission and shall be based on the approved values by the Commission, the latest audited accounts, estimates for the relevant year, prudence check and other factors considered by the Commission.

The Commission may re-determine the baseline values for the base year based on the actual audited accounts of the base year.

3.3 Business Plan for the fourth Control Period

Regarding Business Plan, Regulation 8 of the UERC Tariff Regulations, 2021 specifies as follows:

*"**8. Business Plan***

(1) An Applicant shall submit, under affidavit and as per the UERC Conduct of Business Regulations as amended from time to time, a Business Plan by November 30th, 2021, for the Control Period of three (3) financial years from April 1, 2022 to March 31, 2025;

…

c) The Business Plan for the Distribution Licenses shall be for the entire control period and shall, interalia, contain-

(i) Sales/demand forecast for each customer category and sub-categories for each year of the control period;

(ii) Distribution loss reduction trajectory for each year of the control period; including details of the measures proposed to be taken for achieving the target loss;

(iii) Power procurement plan in case of long term, medium term and short term based on the sales forecast and distribution loss trajectory for each year of the business plan period; the power procurement plan may also include energy efficiency and demand side management measures;

(iv) Collection efficiency improvement trajectory for each year of the Control Period;

(v) Capital investment plan considering the sales/demand forecast, power procurement plan, distribution loss trajectory, targets for quality of supply, etc. The capital investment plan shall be consistent with the perspective plan drawn by the State Transmission Utility (STU), and the investment plan should also include yearly phasing of capital expenditure alongwith the source of funding, financing plan and corresponding capitalisation schedule;

(vi) The appropriate capital structure of each scheme proposed and cost of financing (interest on debt and return on equity), terms of the existing loan agreements, etc;

(vii) Details related to availability of power from renewable energy sources and actions proposed for complying with the RPO specified by the Commission.

...

(2) The Applicant shall also submit the details in respect of its manpower planning for the Control Period as part of Business Plan.

(3) The Commission shall scrutinize and approve the business plan after following the due consultation process."

With regard to Sales Forecast, Regulation 77 of the UERC Tariff Regulations, 2021 specifies as follows:

"77. Sales Forecast

(1) Considering the importance of capturing seasonal variation, Monthly Sales Forecast for the Control Period shall be done in respect of each consumer category/sub-category and to each tariff slab within such consumer category/sub-category, based on the past trends, as far as possible and shall be submitted to the Commission for approval along with the Business Plan. Suitable adjustments shall be made to reflect the effect of known and measurable changes with respect to number of consumers, the connected load and the energy consumption, thereby removing any abnormality in the past data.

Provided that where the Commission has stipulated a methodology for forecasting sales to any particular tariff category, the Distribution Licensee shall incorporate such methodology in developing the sales forecast for such tariff category.

(2) The sales forecast shall be consistent with the load forecast prepared as part of the long-term power procurement plan submitted as a part of Business Plan under these Regulations and shall be based on past data and reasonable assumptions regarding the future.

(3) The Commission shall examine the forecasts for reasonableness based on growth in number of consumers, the connected load and the energy consumption in previous years and anticipated growth in the next year and any other factor, which the Commission may consider relevant and approve the projected sale of electricity to consumers with such modifications as deemed fit."

Regarding Distribution losses, Regulation 79 of the UERC Tariff Regulations, 2021 specifies as follows:

"79. Distribution losses

(1) Energy loss in the distribution system shall be called Distribution Loss.

(2) Distribution Loss above and up to a particular voltage level shall be calculated as the difference between the energy initially injected into the distribution system and the sum of energy sold up to that level and energy delivered to next voltage level.

% Distribution Loss above and up to a particular voltage level shall be expressed in terms of Distribution Loss up to that level as a percentage of the energy initially injected into the distribution system.

(3) The Commission may require information on Circle-wise/Division-wise and/or month-wise Distribution loss calculation.

(4) To substantiate the Distribution Loss calculations, the Commission may require the Distribution Licensee to conduct proper and reliable energy audit.

(5) The Distribution Licensee shall also propose voltage-wise losses for each year of the Control Period for the determination of voltage-wise cost of supply. The Commission shall examine the filings made by the licensee for the distribution loss trajectory for each year of the Control Period and approve the same with modification as it may consider necessary.

(6) The Commission may ask Distribution Licensee to submit detailed information on voltage-wise Distribution Losses segregating them into Technical loss (i.e. Ohmic/Core loss in the lines, substations and equipment) and Commercial Loss (i.e. unaccounted energy due to metering inaccuracies/inadequacies, pilferage of energy, etc.). The Commission shall examine the filings made by the Distribution Licensee in respect of distribution loss (segregated into technical loss and commercial loss) and approve the same with modification, as it may consider necessary.

The Commission may fix targets, both long term and short term, for each year of Control Period for loss reduction to bring down the Distribution loss levels (both technical and commercial) gradually to acceptable norms of efficiency."

Regarding Power procurement plan, Regulation 73 of the UERC Tariff Regulations, 2021 specifies as follows:

"73. Power procurement plan

(1) The Distribution Licensee shall prepare a plan for procurement of power to serve the demand for electricity in its area of supply and submit such plan to the Commission for approval:

Provided that such power procurement plan shall be submitted for the fourth Control Period commencing on April 1, 2022:

Provided further that the power procurement plan, approved as a part of the Business Plan, shall be submitted along with the application for determination of tariff.

Provided that the power procurement plan submitted by the Distribution Licensee may include long-term, medium-term and short-term power procurement sources of power, in accordance with these Regulations. However, the distribution licensee should as far as possible, not plan for short-term purchases except for conditions specified in Regulations 75 and should endeavor to meet its requirement from long term and medium term power procurement and make a plan accordingly.

(2) The power procurement plan of the Distribution Licensee shall comprise of the following:

a) A quantitative forecast of the unrestricted demand for electricity for each tariff category, within its area of supply over the Control Period;

b) An estimate of the quantities of electricity supply from the identified sources of generation *and power purchase;*

c)An estimate of availability of power to meet the base load and Peak load requirement.

Provided that estimate should be monthly estimation of demand and supply expressed both in Mega-Watt (MW) as well as in Million Units (MUs).

d) Standards to be maintained with regard to quality and reliability of supply, in accordance with the UERC (Standards of Performance) Regulations, 2007, as amended from time to time;

e)Measures proposed to be implemented as regards energy conservation and energy efficiency;

f) The requirement for new sources of power generation and/or procurement, including augmentation of generation capacity and identified new sources of supply, based on (a) to (d) above;

g) The plan for procurement of power including quantities and cost estimates for such procurement:

Provided that the forecast/estimate contained in the long-term procurement plan shall be separately stated for peak and off-peak periods, in terms of quantities of power to be procured (in millions of units of electricity) and maximum demand (in MW/ MVA):

Provided further that the forecasts/estimates shall be prepared for each month of the Control Period:

Provided also that the long-term procurement plan shall be a cost-effective plan based on available information regarding costs of various sources of supply.

h) Short-term power procurement proposed shall be in accordance with Regulation 75 of these Regulations.

(3) The forecasts/estimates shall be prepared using forecasting techniques based on past data and reasonable assumptions regarding the future:

Provided that the forecasts/estimates shall take into account factors such as overall economic growth, consumption growth of electricity-intensive sectors, advent of competition in the electricity industry, trends in captive power, impact of loss reduction initiatives, improvement in Generating Station Plant Load Factors and other relevant factors.

(4) Where the Commission has stipulated a percentage of the total consumption of electricity in the area of a Distribution Licensee to be purchased from co-generation and renewable sources of energy, the power procurement plan of such Distribution Licensee shall include the plan for procurement from such sources at least upto the stipulated level.

(5) The Distribution Licensee shall be required to forward a copy of the power procurement plan to the State Transmission Utility for verification of its consistency with the transmission system plan for the intra-State transmission system;

Provided that the Distribution Licensee may also consult the State Transmission Utility at the time of preparation of the power procurement plan to ensure consistency of such plan with the transmission system plan.

(6) The Distribution Licensee may, as a result of additional information not previously known or available to him at the time of submission of the procurement plan under sub-Regulation (1) above, apply for a modification in the power procurement plan, for the remainder of the Control Period, as part of the application for Annual Performance Review:

(7) The Commission may, as a result of additional information not previously known or available to the Commission at the time of submission of the procurement plan under sub-Regulation (1) above, if it so deems, either on suo motu basis or on an application made by any interested or affected party, modify the procurement plan of the Distribution Licensee, for the remainder of the Control Period, as part of the Annual Performance Review.

(8) The Commission shall review the power procurement plan of the Distribution Licensee, or any proposed modification thereto, and upon such review being completed, the Commission shall either-

a) Issue an order approving the power procurement plan, or modifications thereto, subject to such modifications and conditions as it may deem appropriate; or

b) Reject the power procurement plan or application for modification thereto, for reasons recorded in writing, if such plan is not in accordance with the guidelines contained in this Part, and direct the Distribution Licensee to submit a revised plan based on such considerations as it may specify:

Provided that the Distribution Licensee shall be given reasonable opportunity of being heard before rejecting its power procurement plan."

Regarding Capital Investment Plan, Regulation 71 of the UERC Tariff Regulations, 2021 specifies as follows:

"71. Capital Investment Plan

(1) The Distribution Licensee shall file a detailed capital investment plan, financing plan and physical targets for each financial year of the Control Period, for meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, metering, consumer services, etc. to the Commission for approval as a part of Business Plan. The capital investment plan should be filed at the beginning of the Control Period.

(2) The investment plan shall be a least cost plan for undertaking investments on strengthening and augmentation of the distribution system for meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, metering, etc.

(3) The investment plan shall cover all capital expenditure projects to be undertaken by the Distribution Licensee in the Control Period and shall be in such form as may be stipulated by the Commission from time to time.

(4) The prior approval of the Commission shall be required for all capital expenditure schemes of the value exceeding the ceiling specified by the Commission in the distribution license.

(5) The investment plan shall be accompanied by such information, particulars and documents as may be required showing the need for the proposed investments, alternatives considered, cost/benefit analysis and other aspects that may have a bearing on the wheeling tariff and retail tariffs. The investment plan shall also include capitalisation schedule and financing plan.

(6) The Distribution Licensee shall submit, along with the MYT Petition or along with the application for Annual Performance Review, details showing the progress of capital expenditure projects, together with such other information, particulars or documents as the Commission may require for assessing such progress."

In accordance with Regulation 8, Regulation 71, Regulation 73, Regulation 77 & Regulation 79 of UERC Tariff Regulations, 2021, the Petitioner submitted the Business Plan for the fourth

Control Period from FY 2022-23 to FY 2024-25. The Petitioner in its Business Plan Petition and subsequent submissions has submitted the Sales Forecast, distribution loss reduction trajectory, power procurement plan, collection efficiency improvement trajectory, capital expenditure plan, capitalisation plan, and human resources plan for the fourth Control Period from FY 2022-23 to FY 2024-25. The Petitioner's submissions and the Commission's analysis on the approval of the Business Plan of UPCL for the fourth Control Period from FY 2022-23 to FY 2024-25 are detailed below.

3.4 Sales Forecast

The Petitioner submitted that various measures including tax incentives, etc. for providing boost to the economic activities along with increasing population, per capita consumption and electrification level has resulted in significant increase in consumer base and sales in the State. The Petitioner further submitted that the increasing population growth, per capita consumption and electrification level has resulted in a significant increase in consumer base and sales in the State. The Petitioner further submitted that the actual sales had increased from 10,298.14 MUs in FY 2015-16 to 11,432.59 MUs in FY 2020-21 along with the increase in consumer base from 19.89 lakhs in FY 2015-16 to 26.70 lakhs FY 2020-21. The Petitioner further submitted that the Central Schemes with their focus on rural electrification like DDUGJY, Power For ALL, SAUBHAGYA etc. have spurred demand in the State, which has resulted in increase of domestic sales share from 23.22% in FY 2015-16 to 28.93% in FY 2020-21. On the other hand, completion of tax holidays and initiatives such as demonetisation and rollout of GST have dampened industrial consumption in the State. Further, COVID 19 pandemic and nationwide lockdown has also hit the Industrial sector. This has resulted in reduction of share of industrial consumption from 55.54% in FY 2015-16 to 50.41% in FY 2020-21. The actual consumer category wise sales for the past 5 years are as shown in the Table below:

Table 3.1: Actual consumer category wise sales for FY 2015-16 to FY 2020-21 (MU)

Consumer Category	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
RTS 1: Domestic	2,391.15	2,486.15	2,741.53	2,849.20	3,113.85	3,307.62
RTS 2: Non-domestic, incl. Commercial	1,121.03	1,178.02	1,235.23	1,301.34	1,397.84	1,215.52
RTS 3: Government Public Utilities						
Public Lamps	45.37	48.40	57.32	49.16	46.45	54.03
Government Irrigation System	141.03	145.08	165.70	154.42	178.84	170.82
Public Water Works	347.04	358.04	367.23	411.07	453.03	500.23
RTS 4: Private Tube well/Pump Sets	331.98	350.49	271.37	190.13	202.62	225.40
RTS 5: Industrial Consumers						
LT Industry	282.32	300.13	302.21	309.93	311.94	311.19
HT Industry	5,437.27	5,508.03	5,858.07	6,355.76	6,105.24	5,451.85
RTS 6: Mixed Load	186.78	178.11	182.43	177.75	182.47	169.55
RTS 7: Railway Traction	14.16	19.23	27.73	27.91	29.08	26.39
Total	**10,298.14**	**10,571.69**	**11,208.82**	**11,826.68**	**12,021.35**	**11,432.59**

The Petitioner submitted that after a dip in growth (~3%) in FY 2016-17, FY 2017-18 witnessed resurgence in energy consumption patterns. The small decline in FY 2016-17 was largely due to external reasons, i.e. Central Government policies and decisions. However, during FY 2017-18 the State witnessed revived growth of around 6%. Further, again in FY 2020-21 there has been decline in the sales due to country wide lockdown and pandemic situation which started from the end of March 2020.

The Petitioner submitted that for projecting the consumer category-wise sales for FY 2022-23 and for each year of the fourth Control Period, the Petitioner has considered mix of long to medium term trend of actual sales along with adjustments on account of past abnormalities and impact of recent developments related to Covid-19 and economic conditions that would have a bearing on the future consumption in select consumer categories. The Petitioner submitted that in line with the methodology adopted by the Commission in the past, the Petitioner has adopted the CAGR approach to project the sales for each consumer category while excluding any outliers (relative to the trend) observed in the growth rates over the period of 5 years. The Petitioner further submitted that FY 2020-21 has been an abnormal year due to Covid-19 pandemic with skewed consumption in industrial and commercial categories in the entire first half of the year.

The Petitioner submitted the past growth trends in each consumer category as tabulated below excluding the outlier years of FY 2019-20 and FY 2020-21.

Table 3.2: Computed CAGR of Sales as submitted by the Petitioner

S.No.	Consumer Category	5 Year	4 Year	3 Year	2 Year	Y-o-Y
		FY 13-14 To FY 18-19	FY 14-15 To FY 18-19	FY 15-16 to FY 18-19	FY 16-17 to FY 18-19	FY 17-18 to FY 18-19
1	RTS 1: Domestic	6.23%	5.80%	6.02%	7.05%	3.93%
2	RTS 2: Non-domestic, incl. Commercial	5.50%	5.02%	5.10%	5.10%	5.35%
3	RTS 3: Government Public Utilities					
	Public Lamps	2.22%	1.22%	2.71%	0.78%	-14.22%
	Government Irrigation System	8.18%	9.44%	3.07%	3.17%	-6.81%
	Public Water Works	6.98%	6.74%	5.81%	7.15%	11.94%
4	RTS 4: Private Tube well/Pump Sets	-4.53%	-10.66%	-16.95%	-26.35%	-29.94%
5	RTS 5: Industrial Consumers					
	LT Industry	1.50%	0.42%	3.16%	1.62%	2.55%
	HT Industry	5.75%	5.83%	5.34%	7.42%	8.50%
6	RTS 6: Mixed Load	0.02%	-1.09%	-1.64%	-0.10%	-2.57%
7	RTS 7: Railway Traction	19.43%	17.39%	25.37%	20.48%	0.66%

The Petitioner submitted the growth rates considered for various consumer category along with the rationale for considering the same which is as shown in the Table below:

Table 3.3: Rationale for considering CAGR for the Sales for the Control Period by the Petitioner

S No.	Category	Growth Rate Considered(%)	Rationale
1	RTS 1: Domestic	6.23%	The increase in number of consumers is directly linked with the connected load and subsequently have impact on energy sales. Hence, in line with the same approach/methodology, i.e. based on CAGR (%) of last 5 years (from FY 2013-14 to FY 2018-19), the energy sales are projected for control period for this category.
2	RTS 2: Non-domestic, incl. Commercial	5.50%	
3	RTS 3: Government Public Utilities		
	Public Lamps	2.22%	In line with the approach considering the impact of number of consumers and connected load on energy sales, growth rate based on CAGR (%) of last 5 years (from FY 2013-14 to FY 2018-19) is considered for projecting the energy sales for control period.
	Government Irrigation System	8.18%	
	Public Water Works	6.98%	
4	RTS 4: Private Tube well/Pump Sets	1.00%	The growth observed in this category from the past trend has been uneven including negative. To align the consumption with increase in no. of consumers and connected load, a nominal growth of 1.00% is considered for sales.
5	RTS 5: Industrial Consumers		
	LT Industry	1.50%	The past growth in LT Industry has been around 1-3%. In line with the same trend considering the revival of industries after pandemic, a modest growth rate of 1.50% based on CAGR (%) of last 5 years (from FY 2013-14 to FY 2018-19) is considered for projecting the energy

Table 3.3: Rationale for considering CAGR for the Sales for the Control Period by the Petitioner

S No.	Category	Growth Rate Considered(%)	Rationale
			sales for the control period.
	HT Industry	4.50%	The past growth in HT Industry has been around 5-8%. In line with the same trend considering the revival of industries after pandemic, modest growth of 4.50% is considered for the control period.
6	RTS 6: Mixed Load	1.00%	The growth observed in this category from the past trend has been uneven including negative. Further, to justify the increase in energy sales with increase in number of consumers and connected load, a nominal growth of 1.00% is considered.
7	RTS 7: Railway Traction	5.00%	A nominal growth rate of 5.00% is considered in energy sales. Although with small considerable increase in load across this category it is assumed that the energy sales would increase in future.

The Petitioner further submitted that based on the growth rates considered across various categories as discussed above, the energy sales for FY 2022-23 to FY 2024-25 is projected on revised estimates of FY 2021-22. The Petitioner submitted that the sales for FY 2021-22 have been re-estimated based on the actuals for 5 months.

The projections of consumer category wise sales for the fourth Control Period from FY 2022-23 to FY 2024-25 submitted by the Petitioner is shown in the Table below:

Table 3.4: Consumer Category wise sales projected by the Petitioner for FY 2022-23 to FY 2024-25

Consumer Category	FY2021-22 (Revised Estimate)	Growth Rate	FY 2022-23 (Projected)	FY 2023-24 (Projected)	FY 2024-25 (Projected)
RTS 1: Domestic	3,664.20	6.23%	3,892.46	4,134.94	4,392.52
RTS 2: Non-domestic, incl. Commercial	1,331.26	5.50%	1,404.47	1,481.69	1,563.17
RTS 3: Government Public Utilities					
Public Lamps	58.08	2.22%	59.37	60.68	62.03
Government Irrigation System	184.28	8.18%	199.35	215.65	233.29
Public Water Works	558.74	6.98%	597.74	639.46	684.10
RTS 4: Private Tube well/Pump Sets	241.03	1.00%	243.44	245.87	248.33
RTS 5 : Industrial Consumers					
LT Industry	329	1.50%	334	339	345
HT Industry	5,773	4.50%	6,033	6,305	6,588
RTS 6: Mixed Load	181.31	1.00%	183.12	184.95	186.80
RTS 7: Railway Traction	28.22	5.00%	29.63	31.11	32.67
RTS 9 : Electric Vehicle Charging Station	0.13		17.52	35.04	43.80
Total	**12,350.00**		**12,994.59**	**13,673.42**	**14,379.52**

The Petitioner submitted that for projecting number of Consumers for all the categories for FY 2021-22 and for each year of the fourth Control Period actual consumer growth between FY 2015-16 and FY 2020-21 has been considered, i.e. the chosen growth rate is applied over the actual number of consumers for FY 2020-21 to make the projections for each category for FY 2021-22, and for projections for each year of the Control Period. The number of consumers for each year of the control period is then projected based on the growth rate considered for domestic category over no. of consumers for FY 2021-22 respectively.

The projected no. of consumers for FY 2022-23 to FY 2024-25 for each consumer category is as shown in the Table below:

Table 3.5: Consumer Category wise no. of consumers projected by the Petitioner for FY 2022-23 to FY 2024-25 (Nos.)

Consumer Category	FY 2021-22 (Revised Estimate)	Growth Rate	FY 2022-23	FY 2023-24	FY 2024-25
RTS 1: Domestic	24,29,394	4.58%	25,40,569	26,56,830	27,78,412
RTS 2: Non-domestic, incl. Commercial	3,02,071	6.63%	3,22,104	3,43,467	3,66,246
RTS 3: Government Public Utilities					
Public Lamps	3,227	21.72%	3,928	4,781	5,819
Government Irrigation System	1,942	2.32%	1,987	2,033	2,080
Public Water Works	2,339	9.88%	2,570	2,824	3,103
RTS 4: Private Tube well/Pump Sets	43,894	7.25%	47,076	50,488	54,148
RTS 5 : Industrial Consumers					
LT Industry	14,856	8.04%	16,050	17,340	18,733
HT Industry	2,407	2.00%	2,455	2,504	2,555
RTS 6: Mixed Load	80	0.78%	80	81	81
RTS 7: Railway Traction	2	0.00%	2	2	2
RTS 9: Electric Vehicle Charging Station	2		100	200	250
Total	**28,00,214**		**29,36,921**	**30,80,550**	**32,31,430**

The Petitioner submitted that for projecting connected load for all the categories for FY 2021-22 and for each year of the fourth Control Period, actual load growth between FY 2013-14 and FY 2018-19 (FY 2019-20 and FY 2020-21 being affected from COVID pandemic are excluded being outliers) has been considered, i.e. the chosen growth rate is applied over the actual connected load for FY 2020-21 to make the projections for each category for FY 2021-22.

The projected connected load for FY 2022-23 to FY 2024-25 for each consumer category is as shown in the Table below:

Table 3.6: Consumer Category wise connected load projected by the Petitioner for FY 2022-23 to FY 2024-25 (in kW)

Consumer Category	FY 2021-22 (Revised Estimate)	Growth Rate	FY 2022-23	FY 2023-24	FY 2024-25
RTS 1: Domestic	39,00,531	7.00%	41,73,568	44,65,718	47,78,318
RTS 2: Non-domestic, incl. Commercial	13,57,042	7.00%	14,52,035	15,53,678	16,62,435
RTS 3: Government Public Utilities					
Public Lamps	20,715	7.00%	22,165	23,717	25,377
Government Irrigation System	72,282	5.00%	75,896	79,691	83,675
Public Water Works	1,36,250	9.00%	1,48,513	1,61,879	1,76,448
RTS 4: Private Tube well/Pump Sets	2,58,808	5.00%	2,71,749	2,85,336	2,99,603
RTS 5 : Industrial Consumers					
LT Industry	2,95,465	4.00%	3,07,284	3,19,575	3,32,358
HT Industry	17,90,449	3.50%	18,53,114	19,17,973	19,85,102
RTS 6: Mixed Load	59,167	1.00%	59,758	60,356	60,960
RTS 7: Railway Traction	15,400	10.00%	16,940	18,634	20,497
RTS 9 : Electric Vehicle Charging Station	60		5,000	10,000	12,500
Total	**79,06,169**		**83,86,022**	**88,96,557**	**94,37,274**

The Commission observed that the sales projections made by the Petitioner for the fourth Control Period are the restricted sales projections as the Petitioner has computed the growth rates based on actual restricted sales and then applied the growth rates on the estimated restricted sales of FY 2021-22. It would be important to note that the actual load shedding in FY 2019-20 and FY 2020-21 was to the extent of 18.79 MU and 16.56 MU respectively. Though quantum of load shedding is not much, the Commission is of the view that for the purpose of planning, it would be more appropriate to project the unrestricted sales for the fourth Control Period from FY 2022-23 to FY 2024-25 as UPCL can arrange to procure additional power from the market due to improvement in demand supply situation across the country as well as in the Northern Region. Accordingly, the Commission has projected the unrestricted sales for the fourth Control Period.

The Commission while carrying out the truing up of sales for each category, recasts the sales for certain categories. Accordingly, the Commission while carrying out the truing up of sales for FY 2020-21 has re-casted the sales for certain categories as discussed in detail in Chapter 4 of this Order. The Commission has, therefore, considered the actual re-casted sales of previous 6 years. For projecting the category-wise sales for the fourth Control Period from FY 2022-23 to FY 2024-25, the Commission analysed the growth rates derived based on re-casted unrestricted sales data for the previous 6 years excluding FY 2020-21 as the same was severely hit by COVID-19. The Commission has normalized the growth rate, wherever considered appropriate, based on the ground reality, to realistically estimate the sales figures for a particular category of consumers for each year of the

Control Period. The Commission for projecting the sales for the fourth Control Period has considered the revised sales estimates for FY 2021-22 as submitted by the Petitioner. In addition to the estimates, in order to project unrestricted sales, the Commission has added 48.99 MU load shedding carried out by the Petitioner in first half of FY 2021-22 to arrive at the un-restricted estimated sales for FY 2021-22. The Commission has then applied the growth rates so derived on the actual un-restricted sales figures for FY 2021-22 to project the category wise sales for FY 2022-23 and for the remaining years of the fourth Control Period.

The category-wise growth rates considered by the Commission for different categories of consumers and sales projections for the Control Period are discussed in the following paras.

3.4.1 *Domestic (RTS-1)*

The Petitioner has considered a growth rate of 6.23%, i.e. 5 Year CAGR worked out on the basis of the growth rate observed for the category between FY 2013-14 to FY 2018-19. Accordingly, the Petitioner has projected energy sales to domestic consumers for FY 2022-23 as 3,892.46 MU.

The 5 years, 4 years, 3 years, 2 years and 1 year CAGR of unrestricted sales for domestic category works out to 5.88%, 6.84%, 7.69%, 7.34% and 9.55% respectively. The Commission considering the CAGR of previous years and year on year variations has projected the sales for the fourth Control Period considering the four year CAGR of 6.84%. Hence, the sales for domestic category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to 3929.36 MU, 4197.96 MU and 4484.92 MU respectively.

3.4.2 *Non-Domestic (RTS-2)*

The Petitioner has considered a growth rate of 5.50%, i.e. 5 Year CAGR worked out on the basis of growth rate observed for the category between FY 2013-14 to FY 2018-19. Accordingly, the Petitioner has projected energy sales to non- domestic consumers for FY 2022-23 as 1,404.47 MU.

The 5 years, 4 years, 3 years, 2 years and 1 year CAGR of unrestricted sales for non-domestic category works out to 4.22%, 4.64%, 4.71%, 5.42% and 5.17% respectively. Considering the CAGR of previous years and year on year variation in sales, the Commission for projecting the sales for the fourth Control Period has considered four years CAGR of 4.64%. Hence, the sales for non-domestic Category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to 1398.46 MU, 1463.35 MU and 1531.26 MU respectively.

3.4.3 *Government Public Utilities (RST-3)*

The Petitioner has separately projected the sales for Public Lamps, GIS and PWW consumers by considering a growth rate of 2.22%, 8.18% and 6.98% respectively, i.e. 5 Year CAGR worked out on the basis of the growth rate observed for the category between FY 2013-14 to FY 2018-19. Accordingly, the Petitioner has projected total sales for Public utilities as 856.46 MU for FY 2022-23.

The 5 years, 4 years, 3 years, 2 years and 1 year CAGR of unrestricted sales for Government Public Utilities category works out to 6.64%, 5.48%, 6.38%, 8.05% and 11.40% respectively. Considering the CAGR of previous years and year on year variation in sales, the Commission for projecting the sales for the fourth Control Period has considered four years CAGR of 5.48%. Hence, the sales for Government Public Utilities Category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to 848.03 MU, 894.52 MU and 943.56 MU respectively.

3.4.4 *Private Tube-Wells (RTS-4)*

The Petitioner has assumed a nominal growth rate of 1% as no clear trend in consumption has been witnessed considering past sales. Accordingly, the Petitioner has projected energy sales to Private Tube-Wells consumers for FY 2022-23 as 243.44 MU.

The 5 years, 4 years, 3 years, 2 years and 1 year CAGR of unrestricted sales for PTW category works out to -6.85%, -9.32%, -15.37%, -13.62% and 3.11% respectively. It is observed that for this category though 5 to 2 years CAGR for sales works out to be negative, the Petitioner has projected growth in number of consumers and connected load by 7.25% and 5% respectively. Therefore, the Commission for projecting the sales for the fourth Control Period for this category has considered nominal growth rate of 5.00%. Hence, the sales for Private Tube-Wells Category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to 254.25 MU, 266.96 MU and 280.31 MU respectively.

3.4.5 *Industry (RTS-5)*

The Petitioner has considered the growth rate of 1.50% for LT category, i.e. 5 years CAGR worked out on the basis of growth rate observed for the category between FY 2013-14 to FY 2018-19. Accordingly, the Petitioner has projected sales to LT consumers at 334.38 MU for FY 2022-23.

The 5 years, 4 years, 3 years, 2 years and 1 year CAGR of unrestricted sales for LT industries works out to -0.63%, 1.67%, 0.45%, 2.10% and 0.90% respectively. It is observed that there is no clear trend in sales in these years. Therefore, the Commission for projecting the sales for the fourth Control Period has considered growth rate of 3.00% considering the growth in connected load and nos. of consumers projected by the Petitioner. Hence, the sales for LT Industry Category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to be 340.64 MU, 350.86 MU and 361.39 MU respectively.

The Petitioner has considered the growth rate of 4.50% for HT category of consumers anticipating the revival of growth post pandemic. Accordingly, the Petitioner has projected sales to HT consumers at 6033.12 MU for FY 2022-23.

The 5 years, 4 years, 3 years, 2 years and 1 year CAGR of unrestricted sales for HT industries works out to be 2.88%, 2.33%, 2.98%, 1.83% and -4.61% respectively. Considering the CAGR of previous years and year on year variation in sales, it is observed that the 5 year to 2 year CAGR is in the range of 2-3%. However, anticipating revival in demand, the Commission for projecting the sales for the fourth Control Period has considered nominal growth rate of 4.50% as projected by the Petitioner. Hence, the sales for HT Industry Category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to 6058.23 MU, 6330.85 MU and 6615.74 MU respectively.

3.4.6 *Mixed Load (RTS-6)*

The Petitioner has submitted that growth observed in this category from the past trend has been uneven including negative, however considering the growth projected in the nos. of consumers and connected load it has considered a growth rate of 1.00%. Accordingly, the Petitioner has projected a sale of 183.12 MU for FY 2022-23 for this category.

The 5 years, 4 years, 3 years, 2 years and 1 year CAGR of unrestricted sales for Mixed Load category works out to -1.26%, -1.21%, 0.26%, 0.74% and 2.54% respectively. In the absence of any specific trend the Commission has considered nominal growth rate of 1.00% as projected by the Petitioner. Hence, the sales for this Category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to 183.76 MU, 185.59 MU and 187.45 MU respectively.

3.4.7 *Railway Traction (RTS-7)*

The Petitioner has considered a growth rate of 5.00% anticipating future increase in consumption. Accordingly, the Petitioner has projected a sales of 29.63 MU in FY 2022-23 for this category.

As the 5 years, 4 years, 3 years, CAGR of unrestricted sales for this category works out to be on a higher side as there was considerable load enhancement in FY 2017-18. Therefore, the Commission for projecting the sales for Railway Traction for the fourth Control Period has considered the growth rate of 5.00% as projected by the Petitioner. Hence, the sales for this Category projected by the Commission for FY 2022-23, FY 2023-24 and FY 2024-25 works out to be 29.79 MU, 31.28 MU and 32.84 MU respectively.

3.4.8 *EV Charging Stations (RTS-9)*

The Petitioner on the basis of its projections of nos. of consumers and connected load has projected energy sales of 17.52 MU, 35.04 MU and 43.80 MU for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

The Commission has approved the sales for the category for the fourth Control Period as projected by the Petitioner.

The summary of the category-wise sales projected by the Petitioner and as approved by the Commission for the fourth Control Period is given in the Table below:

Table 3.7: Category Wise Sales Projections for fourth Control Period (MU)

Consumer Category	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	**Approved**	**Claimed**	**Approved**	**Claimed**	**Approved**
RTS-1: Domestic	3892.46	3929.36	4134.94	4197.96	4392.52	4484.92
RTS-2: Non-Domestic	1404.47	1398.46	1481.69	1463.35	1563.17	1531.26
RTS-3: Govt. Public Utilities	856.46	848.03	915.80	894.52	979.42	943.56
RTS-4: Private Tube-wells / Pumping sets	243.44	254.25	245.87	266.96	248.33	280.31
RTS-5: LT & HT Industry						
Total LT	334.38	340.64	339.41	350.86	344.51	361.39
Total HT	6033.12	6058.23	6304.61	6330.85	6588.32	6615.74
Total	6367.50	6398.87	6644.02	6681.71	6932.82	6977.13
RTS-6: Mixed Load	183.12	183.76	184.95	185.59	186.80	187.45
RTS-7: Railway Traction	29.63	29.79	31.11	31.28	32.67	32.84
RTS 9: EV Charging Stations	17.52	17.52	35.04	35.04	43.80	43.80
Total	**12994.59**	**13060.03**	**13673.42**	**13756.41**	**14379.52**	**14481.26**

3.5 Efficiency Parameters

3.5.1 *Distribution Losses*

The Petitioner submitted the year-wise status of distribution losses as shown in the Table below:

Table 3.8: Year wise distribution losses as submitted by the Petitioner

Year	Approved by the Commission	Actual Estimated by the Commission	Actual as per UPCL's record
2003-04	40.32%	35.55%	29.52%
2004-05	36.32%	36.63%	26.66%
2005-06	32.32%	33.38%	28.37%
2006-07	28.32%	32.84%	29.73%
2007-08	24.32%	30.98%	29.65%
2008-09	22.32%	31.02%	28.01%
2009-10	20.32%	25.09%	24.53%
2010-11	19.00%	22.72%	21.61%
2011-12	18.00%	21.27%	19.96%
2012-13	17.00%	21.70%	20.50%
2013-14	16.00%	20.66%	19.18%
2014-15	15.50%	19.06%	18.53%
2015-16	15.00%	18.81%	18.01%
2016-17	15.00%	17.10%	16.68%
2017-18	14.75%	16.22%	15.17%
2018-19	14.50%	15.31%	14.32%
2019-20	14.25%	14.34%	13.40%
2020-21	14.00%	-	13.96%

The Petitioner submitted that at the time of approval of Business Plan for previous Control Period, the loss trajectory approved for each year was based on the loss approved for FY 2016-17 resulting in large gap between the actual and approved losses. The Petitioner further submitted that due to gap in opening loss level, in spite of significant reduction in past years by 5.33% from FY 2016-17 to FY 2019-20, UPCL is not able to meet the distribution loss targets. The Petitioner further submitted that the non-achievement of the distribution loss target for the previous Control Period has resulted into significant financial loss to the company as the Commission has been considering deemed revenue at the time of truing-up for respective years due to non-achievement of the loss target. Therefore, the Petitioner requested the Commission to consider actual loss level of 13.96% for FY 2020-21 for approval of Distribution loss trajectory for the fourth Control Period. The Petitioner also submitted that the Commission has been re-casting the sales under true-up process and as a result the distribution loss is revised, however, the same is not being taken into account while approving distribution loss trajectories. The Petitioner requested that actual distribution loss for FY 2020-21 may be considered as base line figure for determining the distribution loss trajectory for the 4th Control Period.

The Petitioner further submitted that it would continue to undertake measures and prudent capital expenditure which would help in reducing the distribution loss further. The Petitioner also submitted that the implementation of upcoming "Revamped Reform based and Results-linked Distribution Sector Scheme (RDS Scheme)" which is aimed towards improving the operational and financial sustainability by providing financial assistance to Discom's for strengthening of supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmarks in reforms would also assist in loss reduction by the end of the Control Period. The Petitioner submitted that the objective of the scheme is to improve the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector, reduce the AT&C losses to Pan-India levels of 12-15% by FY 2024-25, reduce ACS-ARR gap to zero by FY 2024-25. In line with the objectives of RDS Scheme, the Petitioner submitted that it has proposed the distribution loss trajectory for the fourth Control period.

The Petitioner submitted that loss reduction below 15% is very difficult to achieve going forward and proposed to take following measures for loss reduction:

- Installation of Capacitor Bank at 33/11 kV substations.
- Replacement of Mechanical Meters with Electronic Meters.
- Replacement of Defective Meters to reduce the percentage of defective meters.
- 100% metering of consumers has been completed. Increase in meter reading.
- Implementation of AMR & Laying of LT ABC.
- LT Arial Bunch Cable is being laid in theft prone areas.
- Prepared metering has been made mandatory for new temporary LT connections, for advertisements / hoardings and for Government connections upto 25 kW.
- Monitoring of high loss feeders by officers.
- Checking of consumer billing by Internal Audit Wing to detect errors / omissions / malafides.
- Implementation of R-APDRP Part A & Part B scheme.
- Installation of Double metering in selected 11 kV & 33 kV consumers.
- Underground cabling of HT & LT electrical network in Haridwar Kumbh Area and proposal for arterial roads of Dehradun.
- Procurement of High Value Consumer Management System (HVCMS).

- Implementation of RDS Scheme.

The Petitioner has proposed to reduce the distribution losses by 0.25% per annum during each year of the Control Period considering the actual distribution loss achieved in the base year FY 2020-21. The proposed distribution loss trajectory for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 3.9: Distribution Loss trajectory proposed by the Petitioner for FY 2022-23 to FY 2024-25

Particulars	FY 2020-21 (Actual)	FY 2021-22 (Approved)	FY 2022-23 (Projected)	FY 2023-24 (Projected)	FY 2024-25 (Projected)
Distribution Losses	13.96%	13.75%	13.50%	13.25%	13.00%

The distribution loss target approved by the Commission and the actual distribution loss achieved from FY 2018-19 to FY 2020-21 is as shown in the Table below:

Table 3.10: Distribution Losses for FY 2018-19 to FY 2020-21

Particulars	FY 2018-19		FY 2019-20		FY 2020-21	
	Approved	Actual	Approved	Actual	Approved	Actual
Distribution Losses	14.50%	15.31%	14.25%	14.34%	14.00%	14.64%

As regards the Petitioner's contention of opening gap in approved distribution loss trajectory of UPCL, the Commission in its MYT Order dated April 05, 2016 for the previous Control Period has already dealt with the issue and held that the Commission has been repeatedly directing the Petitioner in its previous Tariff Orders, to carry out the energy audit to ascertain actual losses in the system. However, the Petitioner has so far not made any substantial progress in this regard and the Commission also observed that the Petitioner has consistently failed to address the issues of replacement of defective meters and meter reading in each billing cycle. The Commission in view of the above and rationale provided in earlier orders has already opined that the under-achievement of losses by UPCL was not due to the stringent targets fixed by the Commission but due to its own inefficiency and callous approach which does not merit the same to be passed on to the consumers.

Further, in this regard the Commission would like to point out towards the loss reduction initiatives proposed by UPCL. UPCL has been proposing the same initiatives over the years, the results of which should have started accruing by now. However, from the submissions of the Petitioner as given in the Table below it emerges that there are 7 distribution divisions of UPCL which are RAPDRP Towns having distribution loss in excess of 30% which is unacceptable considering the fact that the towns are covered under R-APDRP Scheme.

Table 3.11:: High Distribution Loss divisions in FY 2020-21

S. No.	Distribution Division	Loss (%)
1.	EDD, Laksar	40.4%
2.	EDD, Landhaura	64.0%
3.	EDD Manglaur	66.0%
4.	EDD, Jaspur	36.3%
5.	EDD Haldwani	36.3%
6.	EDD Joshimath	37.3%
7.	EDD Sitarganj	32.8%

The Commission in its Order dated February 27, 2019, had also observed that there were seven divisions which had a loss level of more than 30%. As evident from above, still there are seven divisions where the losses are above 30%. The only inference that could be drawn here is that the Petitioner has not made any serious and focused efforts in reducing division wise losses despite the same being pointed out by the Commission in its previous orders.

The Commission, however, agrees with the Petitioner's contention that reduction of losses beyond 15.00% will be gradual and, therefore, has set the target of marginal loss reduction to the extent of 0.25% for each year of the fourth Control Period as proposed by the Petitioner. The distribution loss trajectory proposed by the Petitioner and that approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is shown in the Table below:

Table 3.12: Distribution Losses for FY 2022-23 to FY 2024-25

Particulars	FY 2021-22	FY 2022-23		FY 2023-24		FY 2024-25	
	Approved	Proposed	Approved	Proposed	Approved	Proposed	Approved
Distribution Losses	13.75%	13.50%	13.50%	13.25%	13.25%	13.00%	13.00%

In line with the approach adopted by the Commission in its previous Tariff Orders, the Commission has considered the entire distribution loss reduction target for each year of the Control Period as reduction in commercial losses of the Petitioner and has, therefore, considered the impact of distribution loss reduction in terms of increase in sales due to efficiency improvement. Accordingly, the estimated energy requirement at distribution periphery, State periphery and approved loss level for the fourth Control Period from FY 2022-23 to FY 2024-25 are given in the Table below:

Table 3.13: Energy Input requirement approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Sales	13060.03	13756.41	14481.26
Loss level for Energy Input (MU)	13.75%	13.50%	13.25%
Energy Input required at T-D interface (MU)	15142.06	15903.37	16693.09
Commercial Loss reduction (%)	0.25%	0.25%	0.25%
Commercial Loss reduction (Additional sales due to efficiency improvement) (MU)	37.86	39.76	41.73
Total sales with efficiency improvement (MU)	13097.88	13796.17	14522.99
Overall Distribution Loss (%)	13.50%	13.25%	13.00%
PTCUL Loss (%)	1.40%	1.40%	1.40%
Energy Input at State periphery (MU)	**15357.06**	**16129.17**	**16930.12**

3.5.2 *Collection Efficiency*

The Petitioner submitted that UPCL has achieved collection efficiency of 98.53% during FY 2020-21 as against the approved collection efficiency of 99.15%. The Petitioner, however, submitted that it had received an arrear amount of Rs. 201.96 Crore from M/s IDPL which has been adjusted as the same was abnormal transaction, hence, the actual adjusted collection efficiency in FY 2020-21 is 95.55%. The Petitioner submitted that UPCL has undertaken several initiatives such as organizing revenue realization camps, agreement with third parties for increasing payment centres, AMR billing for high value consumers, IT enablement of day-to-day business processes of metering, billing and collection, etc. Further, the Petitioner submitted that any further improvement in collection efficiency beyond 99% may not be possible and achievable given the increased LT consumers and existing large consumer base. Therefore, UPCL has proposed an improvement of 0.50% in collection efficiency in FY 2021-22 and during each year of the 4th Control Period considering the actual adjusted collection efficiency of 95.55% achieved during FY 2020-21.

The Petitioner submitted that following measures are planned to be carried out to achieve the proposed collection efficiency for the fourth Control Period:

- Android based billing system.
- Installation of pre-paid meters.
- AMR based billing for high value consumers.
- Instant Bill delivery on Consumer Premises using Spot Billing Machines.
- Photo based billing started in some areas to remove meter reader malpractices &

improve customer satisfaction.

- SMS based alerts on bill generation, payment reminders & other customer centric actions
- SMS based services using 8108114333.
- Pre-Paid Metering for Temporary Connections.

The collection efficiency trajectory proposed by the Petitioner is as shown in the Table below:

Table 3.14: Collection efficiency trajectory proposed by the Petitioner for FY 2022-23 to FY 2024-25

Particulars	FY 2020-21 (Actual)	FY 2021-22 (Rev. Estimate)	FY 2022-23 (Projected)	FY 2023-24 (Projected)	FY 2024-25 (Projected)
Collection Efficiency	95.55%	96.00%	96.50%	97.00%	97.50%

The collection efficiency (without arrears) achieved by the Petitioner against the approved levels for FY 2017-18 to FY 2020-21 is as shown in the Table below:

Table 3.15: Collection efficiency for FY 2017-18 to FY 2020-21

Particulars	FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	Approved	Actual	Approved	Actual	Approved	Actual*	Approved	Actual*
Distribution Losses	98.75%	98.90%	99.00%	97.44%	99.05%	91.87%	99.10%	95.55%

**COVID affected years*

It is observed that the Petitioner has achieved collection efficiency of 98.90% and 97.44% for FY 2017-18 and FY 2018-19 respectively as against the approved collection efficiency of 98.75% for FY 2017-18 and 99.00% for FY 2018-19. However, the collection efficiency thereafter in FY 2019-20 and FY 2020-21 has deteriorated due to the impact of COVID-19. In view of the past achieved targets (pre-COVID) the collection efficiency proposed by the Petitioner for the fourth Control Period is very low and such poor collection efficiencies would be detrimental to the financial health of the Petitioner Company. It is to be further noted that the Petitioner in its Business Plan Petition for the third Control Period had projected collection efficiency in the range of 99.05% to 99.15%.

In view of the above, the Commission is of the view that collection efficiency needs to be improved and cannot be lowered down vis-à-vis earlier targets. It is further to be noted that the Petitioner has projected a significant amount of capital expenditure towards cash collection centres, consumer care centres and e-payment of bills which should result in increase in the collection efficiency. However, with regards to the present norms, the Commission is of the view that improving collection efficiency beyond 99.15% as approved for FY 2021-22 would be difficult and, therefore, the Commission has approved the collection efficiency of 99.15% for FY 2022-23 to FY 2024-25. The collection efficiency trajectory approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 3.16: Collection Efficiency for FY 2022-23 to FY 2024-25

Particulars	FY 2021-22	FY 2022-23		FY 2023-24		FY 2024-25	
	Approved	Proposed	Approved	Proposed	Approved	Proposed	Approved
Collection Efficiency	99.15%	96.50%	99.15%	97.00%	99.15%	97.50%	99.15%

However, the Commission would like to point out that it does not determine the ARR and Tariffs of UPCL based on the AT&C loss levels but based on the distribution loss levels. The shortfall in collections is covered through an allowance in working capital for the distribution licensee to the extent of collection inefficiency. The licensee should strive for maximum collections to improve its financial health and prevent any receivables turning bad. Further, the scheme of surcharge waiver should not be encouraged as it gives a wrong signal to the honest consumers who pay their dues in time. The Petitioner is required and expected to improve its bill collection system and monitor its receivables to prevent them from turning into bad and unrealizable.

3.6 Power Procurement Plan

The Petitioner submitted that the power requirement of UPCL is met from various sources which includes the generating stations of:

- NTPC Ltd.
- NHPC Ltd.
- NPCIL.
- SJVNL.
- THDC India Ltd.
- State generating stations of UJVNL.
- UREDA.
- State based Gas Generating Stations.
- State Royalty Power.
- Co-generation stations.
- Independent Power Producers (IPPs).
- Other Renewable Sources.

- Short-term power arrangements: Banking, open market purchase etc.

For projecting the availability of power for FY 2022-23, the Petitioner has considered actual monthly generation from April 2021 to September 2021 as generation for first half of FY 2021-22. The Petitioner has further considered average of actual generation of balance months, i.e. October to March of last 3 years (FY 2017-18 to FY 2019-20) to arrive at the total energy availability which is distributed over the balance months of second half (H2) of FY 2021-22 in the same proportion as in FY 2020-21. Subsequently, this energy for FY 2021-22 has been considered as available for FY 2022-23 to FY 2024-25. For the stations which have not been operational for complete 3 years, the actual generation available in H2 of FY 2020-21 has been considered for projecting generation of H2 of FY 2021-22. The ex-bus energy availability from various sources has been projected based on the following:

- **UJVN Ltd. –** The monthly availability from UJVN Ltd.'s 10 Large Hydro Plants, Maneri Bhali-II and Small Hydro Plants of UJVN Ltd. excluding Ramganga has been estimated based on the actual monthly generation from April 2021 to September 2021 as generation for first half of FY 2021-22. The Petitioner has further considered average of actual generation of balance months of last 3 years (FY 2017-18 to FY 2019-20) to arrive at the total energy availability and further it is distributed over the balance months of second half (H2) of FY 2021-22 in the same proportion as in FY 2020-21. For Ramganga, the actual generation available in H2 of FY 2020-21 has been considered for projecting generation of H2 of FY 2021-22. Subsequently, the same energy as derived from above for FY 2021-22 has been considered as available for FY 2022-23 to FY 2024-25.

- **NTPC Ltd. –** For all stations except Singrauli SHP, Unchahar-IV and Tanda-II monthly availability has been estimated based on the actual monthly generation from April 2021 to September 2021 as generation for first half of FY 2021-22. The Petitioner has further considered average of actual generation of balance months of last 3 years (FY 2017-18 to FY 2019-20) to arrive at the total energy availability and further it is distributed over the balance months of second half (H2) of FY 2021-22 in the same proportion as in FY 2020-21. For estimating energy availability from Singrauli SHP, Unchahar-IV and Tanda-II the actual generation available in H2 of FY 2020-21 has been considered for projecting generation of H2 of FY 2021-22. Subsequently, the same energy as derived from above for FY 2021-22 has been considered as available for FY 2022-23 to FY 2024-25.

- **NHPC Ltd., SJVNL, THDC –** For all stations monthly availability has been estimated based on the actual monthly generation from April 2021 to September 2021 as generation for first half of FY 2021-22. The Petitioner has further considered average of actual generation of balance months of last 3 years (FY 2017-18 to FY 2019-20) to arrive at the total energy availability and further it is distributed over the balance months of second half (H2) of FY 2021-22 in the same proportion as in FY 2020-21. Subsequently, the same energy as derived from above for FY 2021-22 has been considered as available for FY 2022-23 to FY 2024-25.
- **NPCIL –** For all stations monthly availability has been estimated based on the actual monthly generation from April 2021 to September 2021 as generation for first half of FY 2021-22. The Petitioner has further considered average of actual generation of balance months of last 3 years (FY 2017-18 to FY 2019-20) to arrive at the total energy availability and further it is distributed over the balance months of second half (H2) of FY 2021-22 in the same proportion as in FY 2020-21. Subsequently, the same energy as derived from above for FY 2021-22 has been considered as available for FY 2022-23 to FY 2024-25.
- **Vishnu Prayag, GVK Srinagar & Rajwakti SHP, Singoli Bhatwari Hydro Electric Project –** For all stations monthly availability has been estimated based on the actual monthly generation from April 2021 to September 2021 as generation for first half of FY 2021-22. The Petitioner has further considered average of actual generation of balance months of last 3 years (FY 2017-18 to FY 2019-20) to arrive at the total energy availability and further it is distributed over the balance months of second half (H2) of FY 2021-22 in the same proportion as in FY 2020-21. Subsequently, the same energy as derived from above for FY 2021-22 has been considered as available for FY 2022-23 to FY 2024-25.
- **UREDA stations and IPPs –** For all stations monthly availability has been estimated based on the actual monthly generation from April 2021 to September 2021 as

generation for first half of FY 2021-22. The Petitioner has further considered average of actual generation of balance months of last 3 years (FY 2017-18 to FY 2019-20) to arrive at the total energy availability and further it is distributed over the balance months of second half (H2) of FY 2021-22 in the same proportion as in FY 2020-21. Subsequently, the same energy as derived from above for FY 2021-22 has been considered as available for FY 2022-23 to FY 2024-25. For Solar rooftop systems availability has been considered based on the actual generation for April 2021 to September 2021 and for balance months 17% CUF is assumed to compute energy availability.

- **State Gas Stations:** The Petitioner has considered actual energy availability corresponding to 85% PLF.
- **Upcoming stations –** For upcoming Hydro generating stations such as Vyasi, Tehri Pump Storage, energy availability from Vyasi has been projected from likely COD of such generating stations, considering monthly PLF of UJVN Ltd. stations for FY 2020-21. For new solar capacity of 100 MW CUF of 19% have been considered. For State Solar 120 MW and URDEA Solar energy availability have been considered based on 17% CUF.
- **Forward banking of power –** The Petitioner has proposed a forward banking of 216 MU for all the years of the fourth Control Period, which shall be returned under reverse banking during the same years in the months of power deficit.
- **Transmission Losses –** The Petitioner, for each year of the Control Period, has considered the ISTS losses of 4% on the basis of the report published by NRLDC for every 52 weeks for the duration of 11.11.2019 to 08.11.2020, and intra-State transmission losses of 1.40% same as that approved for FY 2021-22.
- **Short term purchases -** Based on the energy balance at UPCL periphery, after considering the energy availability from firm sources, the Petitioner has projected a shortfall of 640 MU in FY 2022-23, 1025 MU in FY 2023-24, and 536 MU in FY 2024-25.
- The Petitioner has proposed the total power purchase of 15494 MU in FY 2022-23, 16253 MU in FY 2023-24 and 17038 MU in FY 2024-25.

The Commission has gone through the submissions of the Petitioner. The Commission for projection purposes has considered the energy availability from various generating stations on the basis of month-wise energy availability from all the generating stations which has been further used to compute the deficit quantum of power which the Petitioner would be required to purchase from open market, energy exchange, medium/short term basis depending on its requirement. The Commission for projecting power purchase has considered both the existing generating stations and upcoming stations to be commissioned during the Control Period, in which UPCL has share allocation. The Commission, however, has projected the power purchase cost only for FY 2022-23 in Chapter 5 of the Order while analysing the ARR for FY 2022-23 as projecting power purchase cost at this point of time for FY 2023-24 and FY 2024-25 will be of no relevance as the fuel costs varies significantly over a period of time and further CERC is also yet to issue the Orders for most of the Central Generating stations for the tariff period FY 2019-20 to FY 2023-24. Further, as per UERC Tariff Regulations, 2021, the Petitioner shall be filing Petitions for tariff determination for FY 2023-24 and FY 2024-25 along with the Annual Performance Review for FY 2022-23 and FY 2023-24 and power purchase cost would require detailed scrutiny while processing those Petitions. The detailed approach for approving the power purchase quantum has been discussed below and the detailed approach for projecting power purchase cost for FY 2022-23 is discussed in Chapter 5 of the Order.

For projecting the energy availability quantum from various sources, the Commission sought the following information from the Petitioner:

- Copies of agreements executed with upcoming generating stations.
- Likely COD of the upcoming generating stations along with the basis.

In reply, UPCL submitted the following:

- Copies of PPAs for the upcoming generating stations.
- Likely COD of the upcoming generating stations.

The Commission while projecting the quantum of energy available from various sources for FY 2022-23 to FY 2024-25 has made the assumptions as detailed below.

3.6.1 *Power Purchase from UJVN Ltd.*

The Commission has considered the availability from generating stations of UJVN Ltd. as under:

Table 3.17: Power Purchase from UJVN Ltd.

Stations of UJVN Ltd.	Basis	Rationale
UJVN Ltd. (9 LHPs)	Average of actual month wise gross generation in FY 2019-20, FY 2020-21 & FY 2021-22 (actual for 9 months and projected for 3 months); The impact of loss in generation during the relevant months due to approved RMU works for the respective stations in the 9 LHPs has been considered in FY 2022-23 to FY 2024-25.	In line with previous approach of the Commission
Maneri Bhali-II	Average of actual month wise gross generation in FY 2018-19, FY 2019-20 & FY 2020-21;	
SHPs, viz. Pathri, Mohammadpur & Galogi	Average of actual month wise gross generation in FY 2018-19, FY 2019-20 & FY 2020-21;	

The Commission has estimated the energy availability from these generating stations to UPCL at State Periphery after considering the normative auxiliary consumption and also excluding the share allocation to Himachal Pradesh. Further, the Commission has also factored in the upcoming RMU works to be undertaken by UJVN Ltd. for Dhalipur, Dhakrani and Chilla. The summary of energy availability from UJVN Ltd. for FY 2022-23 to FY 2024-25 as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.18: Energy Availability from UJVN Ltd. For FY 2022-23 to FY 2024-25(MU)

Station	FY 2022-23		FY 2023-24		FY 2024-25	
	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission
UJVN Ltd. (9 LHPs)	2859.36	2788.49	2859.36	2788.49	2859.36	2781.06
Maneri Bali II	1308.11	1335.38	1308.11	1335.38	1308.11	1335.38
Small Hydro						
Pathri	120.45	118.16	120.45	118.16	120.45	118.16
Mohammadpur	52.43	52.23	52.43	52.23	52.43	52.23
Galogi	6.76	8.80	6.76	8.80	6.76	8.80
Total	**4347.11**	**4303.06**	**4347.11**	**4303.06**	**4347.11**	**4295.63**

3.6.2 *Power Purchase from NHPC Ltd.*

The Commission has considered the availability from generating stations of NHPC Ltd. as under:

Table 3.19: Power Purchase from NHPC Ltd.

Stations of NHPC	Basis	Rationale
Salal	Average of actual month wise gross generation in FY 2019-20, FY 2020-21 & FY 2021-22 (actual for 9 months, projections for 3 months).	In line with previous approach of the Commission.
Tanakpur		
Chamera I		
Chamera II		
Chamera III		
Uri		
Dhauliganga		
Dulhasti		
Sewa II		
Uri II		
Parbati III		
Kishanganga		

The Commission has estimated the energy availability from these generating stations to UPCL at State Periphery after considering the normative auxiliary consumption, actual ISTS losses for the respective generating station for FY 2020-21 and considering share allocation to Uttarakhand. The summary of energy availability from NHPC Ltd. for FY 2022-23 to FY 2024-25 as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.20: Energy Availability from NHPC Ltd. for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL			Estimated by Commission
	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23 to FY 2024-25
Salal	39.20	39.20	39.20	42.86
Tanakpur	11.63	11.63	11.63	19.28
Chamera I	82.70	82.70	82.70	77.06
Chamera II	27.01	27.01	27.01	21.56
Chamera III	57.34	57.34	57.34	56.14
Uri	94.49	94.49	94.49	105.49
Dhauliganga	61.00	61.00	61.00	67.62
Dulhasti	121.65	121.65	121.65	122.96
Sewa II	0.00	0.00	0.00	33.88
Uri II	77.11	77.11	77.11	84.65
Parbati III	36.30	36.30	36.30	35.33
Kishanganga	18.81	18.81	18.81	18.54
Free Power-Tanakpur	45.91	45.91	45.91	59.47
Free Power-Dhauliganga	135.44	135.44	135.44	139.70
Total	**808.61**	**808.61**	**808.61**	**884.52**

3.6.3 *Power Purchase from THDC India Ltd.*

The Commission has considered the availability from generating stations of THDC Ltd. as under:

Table 3.21: Power Purchase from THDC India Ltd.

Stations of THDCIL	Basis	Rationale
Tehri HEP	Average of actual month wise gross generation in FY 2019-20, FY 2020-21 & FY 2021-22 (actual for 9 months, projections for 3 months)	In line with previous approach of the Commission.
Koteshwar HEP		

The Commission has estimated the energy availability from these generating stations to UPCL at State Periphery after considering the normative auxiliary consumption, actual ISTS losses for the respective generating station for FY 2020-21 and considering the share allocation to Uttarakhand. The summary of energy availability from THDC Ltd. for FY 2022-23 to FY 2024-25 at State periphery as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.22: Energy Availability at State periphery from THDC Ltd. for FY 2022-23 to FY 2024-25 (MU)

Stations of THDCIL	Estimated by UPCL			Estimated by Commission
	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23 to FY 2024-25
Tehri HEP	110.32	110.32	110.32	113.77
Free Power-Tehri HEP	354.52	354.52	354.52	354.86
Koteshwar HEP	77.30	77.30	77.30	78.37
Free Power-Koteshwar HEP	139.11	139.11	139.11	137.95
Total	**681.25**	**681.25**	**681.25**	**684.95**

3.6.4 *Power Purchase from NTPC Ltd.*

The Commission has considered the availability from generating stations of NTPC Ltd. as under:

Table 3.23: Power Purchase from NTPC Ltd.

Stations of NTPC	Basis	Rationale
Singrauli STPS	Average of actual month wise gross generation in FY 2019-20, FY 2020-21 & FY 2021-22 (actual for 9 months, projections for 3 months).	In line with previous approach of the Commission.
Rihand STPS		
Rihand I		
Rihand II		
Rihand III		
Unchahar TPS		
Unchahar I		
Unchahar II		
Unchahar III		
Anta CCPP		
Auraiya CCPP		
Dadri CCPP		
Dadri (NCTPP)		

Table 3.23: Power Purchase from NTPC Ltd.

Stations of NTPC	Basis	Rationale
Jhajjar		
Kahalgaon TPS		
Koldam		

The Commission has estimated the energy availability from these generating stations to UPCL at State Periphery after considering the normative auxiliary consumption, actual ISTS losses for the respective generating station for FY 2020-21 and considering the share allocation to Uttarakhand. The summary of energy availability from NTPC Ltd. for FY 2022-23 to FY 2024-25 at State periphery as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.24: Energy Availability from NTPC Ltd. at State periphery for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL	Estimated by Commission
Singrauli STPS	601.83	655.99
Rihand STPS		
Rihand I	229.60	275.50
Rihand II	208.84	245.79
Rihand III	249.96	283.56
Unchahar TPS		
Unchahar I	186.73	171.65
Unchahar II	92.43	74.38
Unchahar III	68.17	62.91
Anta CCPP	5.91	13.46
Auraiya CCPP	8.93	26.73
Dadri CCPP	56.04	75.46
Dadri (NCTPP)	11.09	6.08
Jhajjar	35.70	37.18
Kahalgaon TPS	143.77	256.09
Koldam	203.11	211.46
Unchahar IV	153.22	148.34
Total	**2255.33**	**2544.59**

3.6.5 *Power Purchase from SJVN Ltd.*

The Commission has considered the availability from generating stations of SJVN Ltd. as under:

Table 3.25: Power Purchase from SJVN Ltd.

Stations of SJVNL	Basis	Rationale
Nathpa Jhakri HEP and Rampur HPS	Average of actual month wise gross generation in FY 2019-20, FY 2020-21, and FY 2021-22 (actual for 9 months, projections for 3 months).	In line with previous approach of the Commission.

The Commission has estimated the energy availability from these generating stations to UPCL at State Periphery after considering the normative auxiliary consumption, actual ISTS losses for the respective generating station for FY 2020-21 and considering the share allocation to Uttarakhand. The summary of energy availability from SJVN Ltd. for FY 2022-23 to FY 2024-25 as estimated by the Commission is shown in the Table below:

Table 3.26: Energy Availability from SJVN Ltd. at State periphery for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL	Estimated by Commission
Nathpa Jhakri HEP	76.09	78.73
Rampur HPS	213.35	223.71
Total	**289.44**	**302.45**

3.6.6 *Power Purchase from NPCIL*

The Commission has considered the availability from generating stations of NPCIL as under:

Table 3.27: Power Purchase from NPCIL

Stations of NPCIL	Basis	Rationale
NAPP RAPP	Average of actual month wise gross generation in FY 2019-20, FY 2020-21, and FY 2021-22 (actual for 9 months, projections for 3 months)	In line with previous approach of the Commission

The Commission has estimated the energy availability from these generating stations to UPCL at State Periphery after considering the auxiliary consumption, actual ISTS losses for the respective generating station for FY 2020-21 and considering the share allocation to Uttarakhand. The summary of energy availability from NPCIL for FY 2022-23 to FY 2024-25 as estimated by the Commission is shown in the Table below:

Table 3.28: Energy Availability from NPCIL at State periphery for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL	Estimated by Commission
Narora APP	166.44	166.37
Rajasthan APP	181.90	158.35
Total	**348.34**	**324.73**

3.6.7 *Power Purchase from Renewable Energy Sources*

The existing renewable energy sources include the small hydro power stations of UREDA, IPPs, co-generation plants, and solar power plants within the State. For these generating stations, the Commission has considered the energy availability at State periphery as projected by UPCL.

The summary of energy availability from existing renewable energy sources for FY 2022-23 to FY 2024-25 as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.29: Energy Availability from Existing RE Sources for FY 2022-23 to FY 2024-25 (MU)

Station	FY 2022-23		FY 2023-24		FY 2024-25	
	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission
Existing RE Sources	926.13	926.13	926.13	926.13	926.13	926.13

3.6.8 *Power Purchase from Vishnu Prayag HEP, GVK Srinagar, Singoli Bhatwari (L&T) (State Royalty Power)*

For estimating the State Royalty power from Vishnu Prayag HEP and GVK Srinagar Hydro stations the Commission has considered the average of actual monthly generation for the years FY 2019-20, FY 2020-21, and FY 2021-22 (actual for 9 months, projections for 3 months). For Singoli Bhatwari, the Commission has considered availability considering the design energy of the station. The summary of energy availability from the said stations as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.30: Energy Availability from Vishnu Prayag HEP, GVK Srinagar, Singoli Bhatwari (L&T) at State Periphery (State Royalty Power) for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL	Estimated by Commission
Vishnu Prayag HEP (State Royalty Power)	205.35	210.46
GVK Srinagar	156.59	134.16
Singoli Bhatwari	54.66	40.84
Total	**416.60**	**385.46**

3.6.9 *Power Purchase from Sasan UMPP*

For estimating the energy availability from Sasan UMPP the Commission has considered the actual monthly generation of FY 2019-20, FY 2020-21 and FY 2021-22 (actual for 9 months, projections for 3 months). The Commission has estimated the energy available from Sasan UMPP to UPCL at State Periphery after considering the normative auxiliary consumption, actual ISTS losses for the period FY 2020-21 and considering share allocation to Uttarakhand. The summary of energy availability from Sasan UMPP for FY 2022-23 to FY 2024-25 as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.31: Energy Availability from Sasan UMPP at State periphery for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL	Estimated by Commission
Sasan UMPP	690.05	757.26

3.6.10 *Power Purchase from State Gas Generating Stations*

The Commission vide its Order dated February 8, 2016 approved the PPA between UPCL and Gama Infraprop (P) Ltd. (Kashipur CCPP), for sale of power corresponding to 107 MW (gross capacity) to UPCL. Further, the Commission vide Order dated July 20, 2016 had approved the PPA between UPCL and Shravanthi Energy Pvt. Ltd. for sale of power corresponding to 214 MW (gross capacity) to UPCL. Further, the Commission had also approved the PPA between UPCL and Beta Infratech Pvt. Ltd. for sale of power corresponding to 107 MW (gross capacity) to UPCL, however, the plant could not achieve commissioning.

It is observed that GoU vide its letter dated I-1/2022-04/15/2015 dated January 06, 2022, in order to meet the future demand of the State has reallocated the 107 MW of capacity related to gas plant of M/s Beta Infratech Pvt. Ltd., to Shravanthi Energy Pvt. Ltd. (SEPL) and Gamma Infraprop Pvt. Ltd. (GIPL) in the ratio of 2:1.

The Petitioner filed two Petitions dated January 11, 2022, seeking approval of the draft PPA's to be executed with SEPL and GIPL. The Commission vide its Order dated February 03, 2022, while approving the PPA directed the Generators that the commissioning of the scheduled capacity of the gas-based projects shall be done only after firm gas tie up at the rates agreed upon by UPCL.

In view of the above, the Commission has considered the energy availability from the stations including the newly allocated 107 MW considering the normative performance parameters in accordance with the Regulations. The Commission further observes that the generators are yet to tie up firm gas supply and, therefore, the projection of energy availability from earlier PPAs totaling 321 MW have been considered from May 2022 and for the newer PPAs totaling 107 MW, as the generator is yet to achieve COD, the energy availability has been considered from October 2022.

The summary of energy availability from these stations for FY 2022-23 to FY 2024-25 as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.32: Energy Availability from Gas based generating stations located in Uttarakhand at State periphery for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL for FY 2022-23 to FY 2024-25	Estimated by Commission		
		FY 2022-23	FY 2023-24	FY 2024-25
GIPL-I – 107 MW	778.93	712.07	776.80	776.80
GIPL-II – 35.67	-	129.47	258.93	258.93
SEPL–I - 214 MW	1557.86	1424.14	1553.61	1553.61
SEPL-II – 71.33	-	258.93	517.87	517.87
Total	**2336.80**	**2524.61**	**3107.22**	**3107.22**

3.6.11 *Power purchase from Greenko Budhil Hydro*

The Commission vide its Order dated December 26, 2016, approved the PPA between UPCL and Greenko Budhil Hydro for sale of power corresponding to 70 MW (gross capacity) to UPCL. In light of the above, the Commission, accordingly, has considered the energy availability from the generating station based on the month wise Design Energy. The Commission has estimated the energy available from the generating station to UPCL at State Periphery after considering the normative auxiliary consumption, ISTS losses for FY 2020-21 and also excluding the free share of Himachal Pradesh. The summary of energy availability from Greenko Budhil Hydro for FY 2022-23 to FY 2024-25 as estimated by the Commission is shown in the Table below:

Table 3.33: Energy Availability from Greenko Budhil Hydro at State periphery for FY 2022-23 to FY 2024-25 (MU)

Station	Estimated by UPCL	Estimated by Commission
Greenko Budhil Hydro	247.33	225.68

3.6.12 *Power purchase from upcoming generating stations*

The upcoming generating stations include the power plants of UJVN Ltd, solar power plants within and outside the State and other Generating Stations expected to be commissioned during the fourth Control Period. For estimating the energy availability, the Commission has considered the actual progress of such generating stations and the likely commissioning dates. With regard to the Petitioner's projection from Bajpur Nandehi Co-generation, the Commission observes that the plant has been shelved down by UJVN Ltd. and energy availability from the same has, therefore, not been considered. The Commission has considered the energy availability from all upcoming stations including solar generation capacity as projected by the Petitioner.

The summary of energy availability from upcoming generating stations expected to achieve COD during the fourth Control Period as estimated by the Petitioner and the Commission is shown in the Table below:

Table 3.34: Energy Availability from upcoming generating stations at State periphery for FY 2022-23 to FY 2024-25 (MU)

Station	FY 2022-23		FY 2023-24		FY 2024-25	
	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission
Vyasi	396.09	396.09	396.09	396.09	369.36	369.36
Solar New (100 MW) @ 19% CUF	41.04	41.04	164.16	164.16	164.16	164.16
Solar (120 MW)	110.16	110.16	110.16	110.16	110.16	110.16
UREDA Solar	298.66	298.66	298.66	298.66	298.66	298.66
Tehri Pump Storage	-	-	165.04	165.04	171.00	171.00
Bazpur Nandehi Co-Generation	-	-	86.09	-	86.09	-
Tapovan Vishnugad	-	-	-	-	202.80	202.80
Vishnugad					210.12	210.12
Solar (100 MW) RTC (Solar + Wind)	-	-	-	-	864.00	864.00
Total	**845.95**	**845.95**	**1220.20**	**1134.11**	**2476.35**	**2390.26**

3.6.13 *Energy available from Firm Sources*

The total energy available from firm sources estimated by the Petitioner and the Commission is as shown in the Table given below:

Table 3.35: Energy available from Long Term Sources (MU)

Station	FY 2022-23		FY 2023-24		FY 2024-25	
	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission
UJVN Ltd.	4347.11	4303.06	4347.11	4303.06	4347.11	4295.63
NHPC Ltd.	808.61	884.52	808.61	884.52	808.61	884.52
THDC	681.25	684.95	681.25	684.95	681.25	684.95
NTPC Ltd.	2255.33	2544.59	2255.33	2544.59	2255.33	2544.59
NPCIL	348.34	324.73	348.34	324.73	348.34	324.73
SJVN Ltd.	289.44	302.45	289.44	302.45	289.44	302.45
Existing Renewable sources	926.13	926.13	926.13	926.13	926.13	926.13
Free Power-Vishnu Prayag	205.35	210.46	205.35	210.46	205.35	210.46
Sasan UMPP	690.05	757.26	690.05	757.26	690.05	757.26
GIPL -I – 107 MW	778.93	712.07	778.93	776.80	778.93	776.80
GIPL-II – 35.67 MW	0.00	129.47	0.00	258.93	0.00	258.93
SEPL-I – 214 MW	1557.86	1424.14	1557.86	1553.61	1557.86	1553.61

Table 3.35: Energy available from Long Term Sources (MU)

Station	FY 2022-23		FY 2023-24		FY 2024-25	
	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission	Estimated by UPCL	Estimated by Commission
SEPL-II – 71.33 MW	0.00	258.93	0.00	517.87	0.00	517.87
Greenko Budhil Hydro	247.33	225.68	247.33	225.68	247.33	225.68
GVK Srinagar	156.59	134.16	156.59	134.16	156.59	134.16
Singoli Bhatwari	54.66	40.84	54.66	40.84	54.66	40.84
Upcoming Stations	845.95	845.95	1220.20	1134.11	2476.35	2390.26
Meja	214.52	288.10	214.52	288.10	214.52	288.10
Tanda	150.86	157.15	150.86	157.15	150.86	157.15
Total	**14558.31**	**15154.63**	**14932.55**	**16025.40**	**16188.71**	**17274.12**

3.6.14 *Power Purchase for fulfilling RPO*

UPCL submitted that it has got accreditation for sale of Non-Solar surplus power as RECs and is planning to meet the deficit, if any, in Solar RPO by way of purchase of power/ RECs from the sale proceeds of Non-Solar RECs. The Petitioner stated that it shall submit details at the time of true-up/ APR on concrete planning for RECs/ Adjustments through revenue proceeds from RECs/ tender purchases in subsequent tariff filings.

The Commission had specified the RPO target for FY 2022-23 to FY 2024-25 in its UERC (Tariff and Other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-Generating Stations) Regulations, 2018 as amended from time to time.

The Commission, based on the estimated power purchase from renewable energy sources, has computed additional power procurement required from Solar and Non-Solar sources for FY 2022-23 only.

Table 3.36: Additional Purchase for fulfilling RPO for FY 2022-23

Particulars	Units	Estimated by UPCL	Estimated by Commission
Total Power Purchase at State Periphery excluding Hydro	MU	7418.86	7722.75
RPO			
Non-Solar	%	11.00%	11.00%
Solar	%	11.00%	11.00%
RPO			
Non-Solar	MU	816.07	849.50
Solar	MU	816.07	849.50
Purchase from Renewable Sources			
Non-Solar	MU	724.26	874.90
Solar	MU	831.37	831.37
Deficit/(Surplus)			
Non-Solar	MU	91.82	-25.40
Solar	MU	-15.29	18.14

The Commission has considered additional power procurement amounting to 18.14 MU to meet solar RPO Target. The Commission has separately included the cost of meeting the deficit solar RPO through procurement of power from solar sources in Chapter 5 of this Order.

3.6.15 *Deficit/(Surplus) Energy*

The Petitioner, in its Petition has submitted that as per the monthly energy balance, the Petitioner shall remain in surplus during the summer months and deficit during the winter months. Therefore, the Petitioner has proposed to bank surplus power during the summer months and meet the deficit by return banking during the winter months in each year under advance banking arrangement.

The Commission has been encouraging the Petitioner to enter into banking arrangements so that the surplus energy during the summer months can be utilised during the winter months and, therefore, for computing gap/surplus for the year the Commission has considered the same.

The energy deficit/surplus scenario estimated by the Commission for FY 2022-23 to FY 2024-25 after considering power procurement to meet RPO is as shown in the Table given below:

Table 3.37: Energy deficit/surplus Scenario for FY 2022-23 to FY 2024-25 (MU)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Energy requirement at State periphery	15357.06	16129.17	16930.12
Total Energy available from firm sources	15154.63	16025.40	17274.12
Power Procurement to meet RPO	18.14	-	-
Deficit/(Surplus)	**184.29**	**103.77**	**(344.00)**

In view of persistent deficit scenario, the Petitioner should put its sincere efforts to procure the deficit energy through a mix of long term arrangements, medium term arrangements and short term purchases optimizing the cost of power purchase and reliable power. Further, the procurement should be through transparent process of bidding.

3.7 Capital Expenditure Plan and Capitalisation Plan

The Petitioner submitted that in compliance to Regulation 8(1)(c)(v) of the UERC Tariff Regulations, 2021 it has prepared capital investment plan taking into account the factors specified by the Commission and as required for smooth operations of the Company. The Petitioner submitted that the plan aims to achieve the anticipated load growth and targeted loss reduction besides improving reliability of the system as well as improving the quality of supply to the consumers. The Petitioner further submitted that the plan shall also reduce energy costs, GHG emissions as well as help easing the pressure on coal supply. The capital expenditure plan proposed by the Petitioner for the fourth Control Period from FY 2021-22 to FY 2024-25 is as shown in the Table below:

Table 3.38: Capital Expenditure Plan for FY 2021-22 to FY 2024-25 as submitted by the Petitioner (Rs. Crore)

S. No.	Capex Schemes	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total Capex
A.	**Central Schemes**					
1	R-APDRP Part B	-	-	-	-	-
2	IPDS	355.32	-	-	-	**355.32**
3	DDUGJY	137.07	46.28	-	-	**183.55**
4	SAUBHAGYA	2.04	-	-	-	**2.04**
5	RDSS	-	346.40	1030.60	1037.00	**2414.00**
Other Works						
A.	**Load Growth**					
1	New Substation projects	56.49	30.81	22.93	-	**110.23**
2	Augmentation of Existing Substations	12.93	4.58	10.70	-	**28.21**
3	Release of New PTW Connections	22.84	5.64	5.64	5.64	**39.76**
4	Installation of meters for giving new connections	8.06	14.83	14.83	14.83	**52.55**
5	Installation of breakers (new)	3.39	6.40	6.40	6.40	**22.59**
6	CSS 990 kVA where two transformers are installed at the same place	1.50	2.00	2.00	2.00	**7.50**
7	Laying of 33 kV lines for new connections	7.77	-	-	-	**7.77**
8	Laying of 11 kV lines for new connections	37.04	-	-	-	**37.04**
9	Laying of LT lines for new connections	23.28	21.80	21.80	21.80	**88.68**
B.	**Loss Reduction**					
10	Installation of Double metering in all the 11 KV & 33 KV consumer	-	0.24	0.24	0.24	**0.72**
11	Implementation of AMR (Other than R-APDRP)	-	2.13	2.13	2.13	**6.39**
12	Laying of 11kV & 33kV Covered conductor for forest area	-	212.89	212.89	212.89	**638.67**
13	Laying of LT ABC Cable in theft prone areas	37.75	17.31	17.31	17.31	**89.68**
14	Replacement of defective single phase and three phase meters	27.17	5.40	5.40	5.40	**43.37**
15	Installation of 11kV & 33kV underground cables	6.45	12.92	12.92	12.92	**45.21**
C.	**System Reliability and Safety Improvement**					
16	Additional Transformers installation with associated 11kV & LT lines	25.53	41.33	41.33	41.33	**149.52**
17	LT Protection System on Transformer	3.49	2.49	2.49	2.49	**10.96**
18	Safety measures	0.83	1.81	1.81	1.81	**6.26**
19	Smart Grid projects for industrial areas	0.05	-	-	-	**0.05**

Table 3.38: Capital Expenditure Plan for FY 2021-22 to FY 2024-25 as submitted by the Petitioner (Rs. Crore)

S. No.	Capex Schemes	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total Capex
D.	**Creation of infrastructure facilities & miscellaneous works**					
20	Consumer care centers, E-payment of bills and Cash collection centers	0.20	5.02	5.02	5.02	**15.26**
21	Procurement of Sub-station and high value consumer meter testing and diagnostics equipment	0.50	-	-	-	**0.50**
22	Other IT works	3.29	2.90	1.20	1.30	**8.69**
23	Automated Demand Response Management System	-	10.00	-	-	**10.00**
	Total Other Works	**278.56**	**400.50**	**387.04**	**353.51**	**1419.61**
	Grand Total	**773**	**793.19**	**1417.63**	**1390.51**	**4430.61**

The Petitioner has submitted that based on the progress of each scheme it has estimated capitalisation plan for the fourth Control Period as shown in the Table below:

Table 3.39: Capitalisation Plan for FY 2022-23 to FY 2024-25 as submitted by the Petitioner (Rs. Crore)

Particulars	Capital expenditure	Capitalisation
FY 2022-23	793.19	880.18
FY 2023-24	1417.63	1417.70
FY 2024-25	1390.51	1562.51
Total	**3601.33**	**3860.39**

The Commission has gone through the submissions of the Petitioner and observes that the net GFA addition by UPCL during the last 3 years is as shown in the Table below:

Table 3.40: Actual GFA addition of UPCL (Rs. Crore)

Year	Amount
FY 2018-19	937.73
FY 2019-20	313.52
FY 2020-21	797.44

It is observed that in comparison to the actual capitalisation during the last 3 years, the year wise capitalisation proposed during the fourth Control Period from FY 2022-23 to FY 2024-25 is substantially higher. Further, the Distribution Licensee is required to seek prior approval of the Commission for all the capital expenditure schemes of the value exceeding the ceiling specified by the Commission in the distribution licence and Regulation 22(4) of UERC Tariff Regulations, 2021.

In view of the actual performance of the Petitioner in the past, the Commission finds the proposed year wise capital expenditure and capitalisation by the Petitioner on a higher side. As many of the schemes are also yet to be accorded investment approval by the Commission, the Commission does not find it prudent to approve scheme wise capitalisation for the fourth Control Period from FY 2022-23 to FY 2024-25 based on the estimated cost submitted by the Petitioner. Hence, the Commission for the purpose of approval of Business Plan has considered the capitalisation for each year of the Control Period based on the approved total Capital Expenditure and Capital Works in Progress (CWIP). However, during the Annual Performance Review/Truing-up exercise, the Commission shall consider the Capitalisation on actual basis subject to capitalisation of only those Schemes which fulfill the conditions as stipulated by the Commission. The approach adopted by the Commission in approval of year wise capital expenditure and capitalisation for the fourth Control Period is detailed below.

The Commission analyzed the trends of amount capitalised by the Petitioner as a percentage of the sum of opening CWIP and Capital Expenditure for the past 3 years from FY 2018-19 to FY 2020-21 based on the audited accounts submitted by the Petitioner. The same is shown in the Table below:

Table 3.41: Capitalisation as % of sum of opening CWIP and Capital Expenditure (Rs. Crore)

Particulars	Legend	FY 2018-19	FY 2019-20	FY 2020-21
Opening CWIP	A	877.95	663.75	1,067.22
Addition to CWIP (Capital Expenditure)	B	795.04	784.39	779.64
Deduction from CWIP (Tfd. To GFA)	C	1,009.24	380.92	863.19
Closing CWIP	A+B-C	663.75	1,067.22	983.67
Capitalisation as % of opening CWIP plus capital expenditure	C÷(A+B)	60.33%	26.30%	46.74%
Average of 3 years		44.46%		

As discussed earlier, the capital expenditure proposed by the Petitioner during each year of the fourth Control Period is substantially higher than the actual capital expenditure incurred during the last three years. The maximum capital expenditure incurred during the last three years is Rs. 795.04 Crore which was incurred in FY 2018-19. Considering the past performance of the Petitioner and the status of capital investment approval of the schemes, the capital expenditure plan submitted by the Petitioner for the fourth Control Period appears to be over ambitious and is unlikely to materialize. The Commission for the purpose of approval of Business Plan is approving the capital expenditure of Rs. 834.79 Crore equivalent to 1.05 times of the maximum actual capital expenditure incurred during last three years, i.e. FY 2018-19 to FY 2020-21.

The Commission further observed that the amount capitalised by the Petitioner during the past 3 years is in the range of 26.30% to 60.33% of the sum of opening CWIP and Capital Expenditure during the year. For approving the capitalisation for each year of the fourth Control Period from FY 2022-23 to FY 2024-25, the Commission has considered the average capitalisation as % of the amount transferred from CWIP to GFA over the sum of opening CWIP and capital expenditure for the past 3 years, i.e., 44.46%.

The year wise capital expenditure and capitalisation approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is shown in the Table below:

Table 3.42: Capital expenditure and Capitalisation approved by the Commission (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Opening CWIP	271.46	1217.14	184.47	1139.73	184.40	1096.73
Capital Expenditure	793.19	834.79	1417.63	834.79	1390.51	834.79
Capitalisation	880.18	912.21	1417.70	877.79	1562.51	858.68
Closing CWIP	184.47	1,139.73	184.40	1,096.73	12.40	1,072.84

The Commission will consider the actual capital expenditure/capitalization as a part of Annual Performance Review/Truing-up exercise subject to prudence check in accordance with the conditions stipulated by the Commission.

3.8 Financing Plan

The financing plan for the proposed capitalisation for the fourth Control Period as submitted by the Petitioner is shown in the Table below.

Table 3.43: Financing Plan proposed by the Petitioner (Rs. Crore)

Particulars	Capitalisation	Grant	Debt	Internal Resource/ State Govt. Equity
FY 2022-23	880.18	424.48	317.55	138.14
FY 2023-24	1417.70	901.52	361.32	154.85
FY 2024-25	1562.51	1096.15	326.45	139.91

The Commission has approved the funding of the approved capitalisation for the fourth Control Period by considering the average of the actual funding pattern of capitalisation during FY 2018-19 to FY 2020-21 as shown in the Table below:

Table 3.44: Actual funding of capitalisation for FY 2018-19, FY 2019-20 and FY 2020-21 (Rs. Crore)

Particulars	FY 2018-19		FY 2019-20		FY 2020-21		Average
	Approved		Approved		Approved		
Capitalisation net of deletions/adjustments	937.73		313.52		692.61		
Financing							
Debt	257.36	27%	129.15	41%	321.02	46%	38%
Equity-State Government	110.30	12%	50.48	16%	137.58	20%	16%
Grant-Central Government	570.07	61%	133.89	43%	234.02	34%	46%
Total	**937.73**	**100%**	**313.52**	**100%**	**692.61**	**100%**	**100%**

Accordingly, the financing plan approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is shown in the Table below:

Table 3.45: Financing Plan approved by the Commission (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Capitalisation	912.21	877.79	858.68
Financing			
Debt	349.64	336.45	329.12
Equity-State Government	145.12	139.65	136.61
Grant-Central Government	417.44	401.69	392.95
Total	**912.21**	**877.79**	**858.68**

The Commission will consider the actual funding of schemes capitalized during the year as part of Annual Performance Review/Truing-up exercise subject to prudence check in accordance with the conditions stipulated by the Commission.

3.9 Human Resource Plan

The Petitioner submitted that although there has been a rapid growth in power sector and the energy sales in Uttarakhand has increased at a CAGR of 2.80% in the last six years and the number of customers has increased by 5.92% over the last year, the number of employees of UPCL has reduced from 3573 in FY 2015-16 to 2458 in FY 2020-21. The Petitioner submitted that it is facing following challenges to fulfil the manpower requirements.

- Restrictions imposed by GoU on direct recruitment of employees.
- Total of 100, 100, 300 recruitments of Junior Engineer (E&M), Office Assistance-III/Data Entry Operator and T.G-III (Electrical) respectively, are pending subject to decision of the Hon'ble High Court, Nainital.

- Availability of skilled manpower as per the specified role.
- Impact on consumer tariff.

The Petitioner further submitted that in order to address the shortfall it has taken the following steps.

- Recruited personnel from Uttarakhand Purv Sainik Kalyan Limited (UPNL) on contractual basis to fill a major portion of the vacant posts which are within the total number of sanctioned posts.
- Letters have been sent to GoU seeking permission to fill up the posts by direct recruitment.
- A Committee was setup to submit a report to Secretary(Finance), GoU regarding the current manpower situation at UPCL, the report for which has been submitted to Government of Uttarakhand.

The Petitioner, in its Petition submitted that it has planned to fill 205 number of posts in FY 2021-22 and further intends to fill balance 413 vacancies in the upcoming years of the 4th Control Period in the manner proposed below subject to the approval of High Court of Nainital and GoU as required:

Table 3.46: Employee addition plan proposed by the Petitioner

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Opening number of employees	2600	2606	2650
Add: Recruitment	118	148	147
Less: Retirement	112	104	94
Closing number of employees	2606	2650	2703

The Petitioner also submitted the recruitment plan for the fourth Control Period as follows:

Table 3.47: Recruitment Plan for the fourth Control Period as submitted by the Petitioner

Group	Post	Vacancies to be filled	FY 22-23	FY 23-24	FY 24-25
A	Company Secretary	1	118	148	147
B	Sr. Industrial Engineer	1			
B	Assistant Engineer (E&M) (Trainee)	72			
B	Assistant Engineer (Civil) (Trainee)	7			
B	Account Officer	15			
B	Law Officer	2			
B	Personnel Officer	8			
C	Junior Engineer (E&M)	100			
C	Junior Engineer (Civil)	2			
C	Assistant Accountant	5			
C	Office Assistant-III/Data Entry Operator	100			
C	Draftsman	5			
C	T.G.-II (Electrical)	300			
	Total	**618**	**118**	**148**	**147**

The Petitioner on a specific query sought by the Commission submitted the updated status of nos. of employees and updated retirements vide reply dated 31.01.2022 and 21.02.2022 which is as shown in the Table below:

Table 3.48: Employee addition plan proposed by the Petitioner

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening number of employees	2532	2588	2594	2638
Add: Recruitment	206	118	148	147
Less: Retirement	150*	112	104	94
Closing number of employees	2588	2594	2638	2691

**Considered as per the revised retirement plan submitted vide reply dated 31.01.2022*

In light of the above updated submissions of the Petitioner, the Commission has considered the recruitment and retirement plan as proposed by the Petitioner. The Commission shall consider the actual recruitment and retirement status during the truing up for the respective years. In case the actual addition to the no. of emplyees is lower than the recruitments considered in this Order, the same shall not be considered as efficiency and no sharing on account of the same shall be allowed while carrying out the truing up. Accordingly, the HR plan approved by the Commission is shown in the Table below:

Table 3.49: HR Plan approved by the Commission

Particulars	FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Opening no. of employees	2532	2532	2588	2588	2594	2594	2638	2638
Recruitment during the year	206	206	118	118	148	148	147	147
Retirement during the year	150	150	112	112	104	104	94	94
Closing no. of employees	2588	2588	2594	2594	2638	2638	2691	2691

4. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing Up for FY 2020-21

4.1 Truing-up for FY 2020-21

Regulation 12(3) of the UERC (Terms and Conditions for Determination of Tariff) Regulations, 2018 specifies as under:

"(3) The scope of the Annual Performance Review shall be a comparison of the actual performance of the Applicant with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of following:

a) A comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year and truing up of expenses and revenue subject to prudence check including pass through of impact of uncontrollable factors;

b) Categorisation of variations in performance with reference to approved forecast into factors within the control of the applicant (controllable factors) and those caused by factors beyond the control of the applicant (un-controllable factors).

c) Revision of estimates for the ensuing financial year, if required, based on audited financial results for the previous financial year;

d) Computation of the sharing of gains and losses on account of controllable factors for the previous year."

The Petitioner submitted that the Commission vide its Tariff Order dated April 18, 2020 had approved the expenses and revenues of the Petitioner for FY 2020-21 based on the UERC Tariff Regulations, 2018, the historical trends and the revised projections of the Petitioner.

The Commission has analysed the head-wise elements of ARR and revenue for FY 2020-21 in the succeeding paragraphs. The head-wise details of variations in expenses and revenues are enumerated below.

4.1.1 *Sales*

The Commission had approved the energy sales for FY 2020-21 in its MYT Order dated April 18, 2020 as 12576.21 MU. The Petitioner in the current Petition has submitted the actual sales for FY 2020-21 as 11432.59 MU and requested the Commission to approve the actual sales as claimed for true-up.

The Commission in its previous Tariff Orders has been analysing the division wise commercial statements of UPCL and observed that the average billing rate (ABR) of certain categories of consumers in some divisions were even less than the energy charge approved for that category and had directed the Petitioner to rectify such anomalies. However, no efforts have been noticed from the Petitioner's end to rectify such anomalies or any satisfactory reply provided to the Commission on the same. Accordingly, the Commission during truing up of previous years has been re-casting the category wise sales of those categories that were having abnormally low ABR.

The Commission in the current proceedings also sought the commercial diary for FY 2020-21 to check the division wise sales and revenue data. The Petitioner in its reply submitted the same. The Commission while analysing the same found that the ABR of almost all the categories for some of the divisions were abnormally low as compared to the ABR approved by the Commission for FY 2020-21.

The Commission during the Technical Validation Session held on January 21, 2022 pointed out various deficiencies in the Commercial diary submitted and sought written justification of such abnormally low ABR. The Commission also pointed out that in some of the categories such as Domestic and Non-Domestic the ABR of few divisions was lower than that in FY 2019-20. The Petitioner vide its reply dated January 31, 2022 submitted that the ABR for FY 2020-21 has been lower than FY 2019-20 due to effective reduction in tariff as additional energy charges were applicable for the month of October 2019 to March 2020. The Petitioner further submitted that in addition to additional energy charge, FCA was applicable for all the four quarters in FY 2019-20 which was not applicable for FY 2020-21 leading to reduced ABR for FY 2020-21. The Petitioner however, could not submit specific reasons for divisions where in the ABR was abnormally lower, i.e. even lower than the approved Energy Charges.

In view of the above discrepancies observed in the sales data in the commercial diary submitted by the Petitioner for FY 2020-21 and reply submitted, the Commission in this Tariff Order has again re-casted the category wise sales of those divisions that have abnormally low ABR. The approach adopted for re-casting the category wise sales of UPCL for FY 2020-21 is discussed hereunder:

a) Domestic Consumers

Based on the detailed analysis of the division wise sales and ABR submitted by the Petitioner for FY 2020-21, it is observed that the following divisions have abnormally low ABR.

Table 4.1: UPCL Divisions with Lower ABR for Domestic Category

S.No.	Name of Division/Circles	No. of Consumers	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR Actual (Rs./kWh)
Domestic (Except RTS 1.1)						
1.	EDD, Narayanbagarh	12463	12829	8.393	300.70	3.58
2.	EDD (R), Hardwar	4940	46345	16.989	548.63	3.23
RTS 1.1 (BPL/Lifeline)						
1.	EDD, Raipur	2575	2575	3.41	107.33	3.14
2.	EDD Roorkee	5,114	5,114	6.168	205.51	3.33
3.	EDD (N), Dehradun	636	636	0.88	25.54	2.91
4.	EDD (U), Hardwar	2,024	2,024	1.84	61.22	3.33
5.	EDD, Laksar	3,420	3,420	4.28	144.03	3.37
6.	EDD, Ramnagar	5976	5976	0.54	13.07	2.42
7.	EDD Rudrapur-I	5074	5074	9.56	243.31	2.55
8.	EDD Rudrapur-II	4650	4650	4.50	133.63	2.97
9.	EDD, Sitarganj	14413	14413	14.47	462.57	3.20
10.	EDD, Khatima	9361	9361	9.48	281.04	2.96

In line with the approach followed in the Tariff Order dated April 26, 2021 division wise re-casting has been done where the actual ABR is found to be considerably lower than the approved tariffs. In order to assess the normative ABR, the Commission has computed the ABR for Domestic Consumers including RTS 1.1 (BPL/Lifeline Consumers) based on the approved energy charges and fixed charges considering the consumption per consumer per month for domestic consumers. The tariff of BPL/lifeline consumers is applicable to the consumers having load upto 1 kW and consumption upto 60 units/month. Based on the normative ABR and revenue booked, excess sales to be disallowed has been computed for each division which is as shown below:

Table 4.2: Excess Sales to be disallowed for Domestic Category (Except RTS 1.1)

S. No	Name of Division/Circles	Consumer	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	Consumption /Consumer/ Month	ABR (Normative) Rs./kWh	Excess Sales (MU)
1.	EDD, Narayanbagarh	12463	8.39	300.70	3.58	56.12	3.87	0.62
2.	EDD (R), Hardwar	4940	16.99	548.63	3.23	286.60	4.42	4.57
	Total							**5.19**

Table 4.3: Excess Sales to be disallowed for Domestic Category (RTS1.1 – BPL/Lifeline)

S. No	Name of Division/Circles	Consumer	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	Consumption /Con./month	ABR (Normative) Rs./kWh	Excess Sales (MU)
1.	EDD, Raipur	2575	3.41	107.33	3.14	110.45	3.75	0.55
2.	EDD Roorkee	5,114	6.168	205.51	3.33	100.51	3.75	0.69
3.	EDD (N), Dehradun	636	0.88	25.54	2.91	114.91	3.75	0.20
4.	EDD (U), Hardwar	2,024	1.84	61.22	3.33	75.72	3.59	0.13
5.	EDD, Laksar	3,420	4.28	144.03	3.37	104.18	3.75	0.44
6.	EDD, Ramnagar	5976	0.54	13.07	2.42	7.54	4.00	0.21
7.	EDD Rudrapur-I	5074	9.56	243.31	2.55	156.96	3.75	3.07
8.	EDD Rudrapur-II	4650	4.50	133.63	2.97	80.56	3.54	0.73
9.	EDD, Sitarganj	14413	14.47	462.57	3.20	83.66	3.52	1.32
10.	EDD, Khatima	9361	9.48	281.04	2.96	84.43	3.51	1.48
	Total							**8.42**

Accordingly, based on the above, the total re-casted sales for Domestic Category for FY 2020-21 works out to 3294.01 MU against 3307.62 MU submitted by UPCL.

b) Non-Domestic:

Based on the detailed analysis of the division wise sales and ABR submitted for FY 2020-21, it is observed that the ABR for this category in some of the Divisions was considerably lower than the average ABR of the category for the State as a whole. In order to assess normative ABR on the basis of Rate Schedule approved by the Commission, the Commission has computed the same for the category considering the energy charges and fixed charges applicable for the consumers which works out to Rs. 5.37/kWh for contracted capacity upto 75 kW and Rs. 6.40/kWh for contracted capacity above 75 kW. The Commission has re-casted the sales of the following divisions for which the ABR has been found to be considerably lower than Rs. 5.37/kWh (upto 75 kW) and lower than Rs. 6.40/kWh (above 75 kW).

Table 4.4: UPCL Divisions with Lower ABR for Non-Domestic Category

S. No.	Name of Division/Circles	No. of Consumers	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)
RTS:2 - Non-Domestic (Upto 75 kW)						
1.	EDD, Doiwala	3483	8913	20.659	691.41	3.35
RTS:2 - Non-Domestic (Above 75 kW)						
1.	EDD, Rishikesh	35	11586	30.270	1585.71	5.24
2.	EDD (N), Dehradun	89	25379	36.991	2333.92	6.31
3.	EDD (S), Dehradun	777	24852	43.486	2591.19	5.96
4.	EDD, Uttarkashi	4	725	1.574	100.36	6.38
5.	EDD, Srinagar	9	5485	7.128	407.69	5.72
6.	EDD, Pauri	5	1965	2.634	133.98	5.09
7.	EDD, Kotdwar	10	2695	2.219	132.93	5.99
8.	EDD (U), Hardwar	58	8,099	9.398	574.42	6.11
9.	EDD, Laksar	1	100	0.189	11.70	6.20
10.	EDD, Nainital	33	6521	4.037	214.17	5.31
11.	EDD (R), Haldwani	17	4402	5.242	305.27	5.82
12.	EDD, Kashipur	474	16789	16.256	1037.78	6.38
13.	EDD, Jaspur	1	200	2.628	167.73	6.38
14.	EDD, Almora	19	6162	3.169	202.26	6.38
15.	EDD, Bageshwar	3	300	0.488	30.85	6.32
16.	EDD Rudrapur-I	25	10390	21.595	1292.22	5.98
17.	EDD, Champawat	6	806	0.680	40.53	5.96
18.	EDD, Dharchula	3	1201	2.002	118.54	5.92

Based on the normative ABR as discussed above and revenue booked, excess sales to be disallowed has been computed for each division. The excess sales to be disallowed for the above divisions is as shown below:

Table 4.5: Excess Sales to be disallowed for Non-Domestic Category

S. No.	Name of Division/Circles	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	ABR normative (Rs./kWh)	Excess sales (MU)
RTS:2 - Non-Domestic (Upto 75 kW)							
1.	EDD, Doiwala	8913	20.659	691.41	3.35	5.37	7.79
RTS:2 - Non-Domestic (Above 75 kW)							
1.	EDD, Rishikesh	11586	30.270	1585.71	5.24	6.40	5.49
2.	EDD (N), Dehradun	25379	36.991	2333.92	6.31	6.40	0.52
3.	EDD (S), Dehradun	24852	43.486	2591.19	5.96	6.40	3.00
4.	EDD, Uttarkashi	725	1.574	100.36	6.38	6.40	0.01
5.	EDD, Srinagar	5485	7.128	407.69	5.72	6.40	0.76
6.	EDD, Pauri	1965	2.634	133.98	5.09	6.40	0.54
7.	EDD, Kotdwar	2695	2.219	132.93	5.99	6.40	0.14
8.	EDD (U), Hardwar	8,099	9.398	574.42	6.11	6.40	0.42
9.	EDD, Laksar	100	0.189	11.70	6.20	6.40	0.01
10.	EDD, Nainital	6521	4.037	214.17	5.31	6.40	0.69
11.	EDD (R), Haldwani	4402	5.242	305.27	5.82	6.40	0.47
12.	EDD, Kashipur	16789	16.256	1037.78	6.38	6.40	0.04

Table 4.5: Excess Sales to be disallowed for Non-Domestic Category

S. No.	Name of Division/Circles	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	ABR normative (Rs./kWh)	Excess sales (MU)
13.	EDD, Jaspur	200	2.628	167.73	6.38	6.40	0.01
14.	EDD, Almora	6162	3.169	202.26	6.38	6.40	0.01
15.	EDD, Bageshwar	300	0.488	30.85	6.32	6.40	0.01
16.	EDD Rudrapur-I	10390	21.595	1292.22	5.98	6.40	1.40
17.	EDD, Champawat	806	0.680	40.53	5.96	6.40	0.05
18.	EDD, Dharchula	1201	2.002	118.54	5.92	6.40	0.15
Total							**21.51**

Accordingly, based on the above, the total re-casted sales for Non-Domestic Category for FY 2020-21 works out to 1194.01 MU as against 1215.52 MU submitted by UPCL.

c) Government Public Utilities:

Similarly, for Government Public Utilities, normative ABR has been computed for each Division considering the energy charges and fixed charges approved by the Commission and the same has been compared with the average division wise ABR and, wherever, the actual division wise ABR is found to be lower than the normative ABR, sales has been re-estimated based on the actual revenue and normative ABR. The excess sales worked out based on the above approach is 27.43 MU.

Accordingly, based on the above, the total re-casted sales for Government Public Utilities for FY 2020-21 works out to 697.65 MU as against 725.08 MU submitted by UPCL.

d) PTW Category:

Based on the detailed analysis of the division wise sales and ABR submitted for FY 2020-21, it is observed that the ABR for the category was lower than the energy charge of Rs. 2.03/kWh (RTS-4) and Rs. 2.25/kWh (RTS-4A) approved by the Commission for the following divisions.

Table 4.6: UPCL Divisions with Lower ABR for RTS 4 Category

S. No.	Name of Division/Circles	No. of Consumers	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)
RTS 4 – Private Tube Well						
1.	EDD, Doiwala	107	803	0.51	10.26	2.02
2.	EDD (S), Dehradun	25	177	0.12	2.44	2.00
3.	EDD Ramnagar (Roorkee)	1047	7236	5.53	110.40	2.00
4.	EDD, Jwalapur	869	4245	3.25	61.92	1.91
5.	EDD, Nainital	11	165	0.15	1.65	1.13
6.	EDD Rudrapur-II	3570	15690	11.15	225.73	2.02
7.	EDD, Khatima	1362	7384	3.27	65.80	2.01
8.	EDD, Champawat	82	686	0.13	2.51	2.01

Table 4.6: UPCL Divisions with Lower ABR for RTS 4 Category

S. No.	Name of Division/Circles	No. of Consumers	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)
RTS-4A: Agriculture Allied Activities						
1.	EDD Vikasnagar	10	55	0.05	1.06	2.21
2.	EDD (S), Dehradun	9	50	0.13	2.88	2.20
3.	EDD, Jwalapur	22	178	0.30	6.37	2.11
4.	EDD, Nainital	1	51	0.18	3.62	2.01
5.	EDD, Ramnagar	13	129	0.13	2.60	2.03
6.	EDD, Bajpur	15	99	0.81	16.52	2.05
7.	EDD Rudrapur-I	4	544	1.21	26.88	2.23

The re-casting is done division wise where actual ABR is found to be considerably lower. Based on the normative ABR equivalent to the tariff for this category and revenue booked, excess sales to be disallowed has been computed for each division. The excess sales to be disallowed for the above divisions is as shown below:

Table 4.7: Excess Sales to be disallowed for PTW Category

S. No.	Name of Division/Circles	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	ABR normative (Rs./kWh)	Excess sales (MU)
RTS 4 – Private Tube Well							
1.	EDD, Doiwala	107	803	0.51	10.26	2.02	0.002
2.	EDD (S), Dehradun	25	177	0.12	2.44	2.00	0.002
3.	EDD Ramnagar (Roorkee)	1047	7236	5.53	110.40	2.00	0.088
4.	EDD, Jwalapur	869	4245	3.25	61.92	1.91	0.195
5.	EDD, Nainital	11	165	0.15	1.65	1.13	0.065
6.	EDD Rudrapur-II	3570	15690	11.15	225.73	2.02	0.033
7.	EDD, Khatima	1362	7384	3.27	65.80	2.01	0.026
8.	EDD, Champawat	82	686	0.13	2.51	2.01	0.001
RTS-4A: Agriculture Allied Activities							
1.	EDD Vikasnagar	10	55	0.05	1.06	2.21	0.001
2.	EDD (S), Dehradun	9	50	0.13	2.88	2.20	0.003
3.	EDD, Jwalapur	22	178	0.30	6.37	2.11	0.019
4.	EDD, Nainital	1	51	0.18	3.62	2.01	0.019
5.	EDD, Ramnagar	13	129	0.13	2.60	2.03	0.012
6.	EDD, Bajpur	15	99	0.81	16.52	2.05	0.071
7.	EDD Rudrapur-I	4	544	1.21	26.88	2.23	0.012
	Total						**0.549**

Accordingly, based on the above, the total re-casted sales for PTW Category for FY 2020-21 works out to 224.85 MU as against 225.40 MU submitted by UPCL.

e) LT Industry

Based on the detailed analysis of the division wise sales submitted for FY 2020-21, it is observed that the ABR for the category was abnormally lower in case of the following divisions:

Table 4.8: UPCL Divisions with Lower ABR for LT Industry

S. No.	Name of Division/Circles	No. of Consumers	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)
1.	EDD (C), Dehradun	269	2407	1.04	67.55	6.47
2.	EDD, Uttarkashi	102	798	0.40	31.62	7.89
3.	EDD, Narayanbagarh	22	169	0.08	6.27	7.94
4.	EDD, Gopeshwar	39	421	0.54	25.11	4.65
5.	EDD, Jwalapur	943	23273	22.65	1,248.11	5.51
6.	EDD, Bajpur	392	8956	10.40	627.74	6.04
7.	EDD, Almora	86	704	0.54	33.43	6.25
8.	EDD, Bageshwar	317	2313	1.02	63.40	6.20
9.	EDD, Ranikhet	160	1694	0.63	52.14	8.25
10.	EDD, Bhikiyasain	135	989	0.53	29.04	5.49
11.	EDD Rudrapur-I	1656	46648	55.00	3,045.39	5.54
12.	EDD Rudrapur-II	805	22552	17.94	1,148.79	6.40
13.	EDD, Sitarganj	727	15344	12.44	839.19	6.75
14.	EDD, Khatima	475	7687	7.26	430.26	5.93
15.	EDD, Pithoragarh	193	1485	0.81	56.98	7.03
16.	EDD, Champawat	144	1947	1.47	93.23	6.32
17.	EDD, Dharchula	45	453	0.28	16.82	6.07

The division wise normative ABR has been worked out considering the energy charge and fixed charges applicable for the consumer category considering the consumption per kW per month. Based on the normative ABR and revenue booked, excess sales to be disallowed has been computed for each division. The excess sales to be disallowed for the above divisions is as shown below:

Table 4.9: Excess Sales to be disallowed for LT Industry

S. No.	Name of Division/Circles	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	Consumption /kW/Month	ABR (Normative) Rs./kWh	Excess Sales (MU)
1.	EDD (C), Dehradun	2407	1.04	67.55	6.47	36.14	8.71	0.268
2.	EDD, Uttarkashi	798	0.40	31.62	7.89	41.88	8.13	0.012
3.	EDD, Narayanbagarh	169	0.08	6.27	7.94	38.95	8.40	0.004
4.	EDD, Gopeshwar	421	0.54	25.11	4.65	106.89	5.92	0.116
5.	EDD, Jwalapur	23273	22.65	1248.11	5.51	81.11	6.37	3.075
6.	EDD, Bajpur	8956	10.40	627.74	6.04	96.73	6.07	0.058
7.	EDD, Almora	704	0.54	33.43	6.25	63.33	6.90	0.051
8.	EDD, Bageshwar	2313	1.02	63.40	6.20	36.82	8.63	0.287
9.	EDD, Ranikhet	1694	0.63	52.14	8.25	31.09	9.39	0.077
10.	EDD, Bhikiyasain	989	0.53	29.04	5.49	44.57	7.91	0.162
11.	EDD Rudrapur-I	46648	55.00	3,045.39	5.54	98.25	6.05	4.643
12.	EDD Rudrapur-II	22552	17.94	1,148.79	6.40	66.28	6.79	1.029
13.	EDD, Sitarganj	15344	12.44	839.19	6.75	67.55	6.75	0.008
14.	EDD, Khatima	7687	7.26	430.26	5.93	78.70	6.43	0.571
15.	EDD, Pithoragarh	1485	0.81	56.98	7.03	45.51	7.84	0.084
16.	EDD, Champawat	1947	1.47	93.23	6.32	63.09	6.91	0.125
17.	EDD, Dharchula	453	0.28	16.82	6.07	50.96	7.48	0.052
Total								**10.62**

Accordingly, based on the above, the total re-casted sales for LT Industry for FY 2020-21 works out to 300.57 MU as against 311.19 MU submitted by UPCL.

f) HT Industry

The Petitioner submitted the sales to HT Industry of 5451.85 MU for FY 2020-21. The Commission carried out detailed analysis of the division wise sales and ABR submitted by the Petitioner for FY 2020-21, and from the same it is observed that following divisions have abnormally low ABR.

Table 4.10: UPCL Divisions with Lower ABR for HT Industries

S. No.	Name of Division/Circles	No. of Consumers	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR Actual (Rs./kWh)
HT Industry (Upto 1000 kVA)						
1.	EDD (C), Dehradun	4	613	0.662	44.95	6.79
2.	EDD, Narayanbagarh	1	400	0.257	22.44	8.73
3.	EDD (U), Roorkee	6	1703	1.437	112.12	7.80
4.	EDD, Laksar	31	12772	9.413	774.15	8.22
5.	EDD, Bajpur	71	28930	40.402	2,446.99	6.06
6.	EDD, Dharchula	1	81	0.037	2.94	7.95
HT Industry (Above 1000 kVA)						
1.	EDD, Sitarganj	16	52000	236.096	12,741.79	5.40

In order to assess normative ABR on the basis of the Rate Schedule approved by the Commission, the Commission has computed the same considering the energy charges and fixed charges applicable for the consumer category considering the consumption per kW per month for the respective divisions. Based on the normative ABR and revenue booked, excess sales to be disallowed has been computed for each division. The excess sales to be disallowed for the above divisions is as shown below:

Table 4.11: Excess Sales to be disallowed for HT Industry

S. No.	Name of Division/Circles	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	Consumption / kW/Month	ABR (Normative) Rs./kWh	Excess Sales (MU)
HT Industry (Upto 1000 kVA)								
1.	EDD (C), Dehradun	613	0.662	44.95	6.79	89.99	7.14	0.03
2.	EDD, Narayanbagarh	400	0.257	22.44	8.73	53.54	9.08	0.01
3.	EDD (U), Roorkee	1703	1.437	112.12	7.80	70.32	7.93	0.02
4.	EDD, Laksar	12772	9.413	774.15	8.22	61.42	8.46	0.27
5.	EDD, Bajpur	28930	40.402	2,446.99	6.06	116.38	6.49	2.70
6.	EDD, Dharchula	81	0.037	2.94	7.95	38.07	11.03	0.01
HT Industry (Above 1000 kVA)								
1.	EDD, Sitarganj	52000	236.096	12,741.79	5.40	378.36	5.50	4.56
	Total							**7.61**

Accordingly, based on the above, the total re-casted sales for HT Industry for FY 2020-21 works out to 5444.24 MU as against 5451.85 MU submitted by UPCL.

g) Mixed Load

Based on the detailed analysis of the division wise sales and ABR submitted by the Petitioner for FY 2020-21, it is observed that following divisions have abnormally low ABR.

Table 4.12: UPCL Divisions with Lower ABR for Mixed Load

S. No.	Name of Division /Circles	No of Consumers	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR Actual (Rs./kWh)
1.	EDD, Raipur	4	772	1.01	54.13	5.35
2.	EDD, Rishikesh	2	1787	7.06	392.49	5.56
3.	EDD (N), Dehradun	7	9490	27.64	1541.62	5.58
4.	EDD (S), Dehradun	3	6110	19.82	1087.31	5.48
5.	EDD (C), Dehradun	1	100	0.23	13.29	5.70
6.	EDD, Tehri	5	5625	19.36	861.66	4.45
7.	EDD, Uttarkashi	1	315	0.58	33.87	5.84
8.	EDD, Srinagar	1	256	0.59	31.78	5.36
9.	EDD, Kotdwar	2	1636	4.48	251.61	5.62
10.	EDD, Gairsain	2	434	0.76	44.30	5.86
11.	EDD, Gopeshwar	5	1495	3.70	195.37	5.28
12.	EDD (U), Roorkee	4	12172	35.61	1915.96	5.38
13.	EDD (R), Hardwar	1	125	0.48	23.78	4.97
14.	EDD, Jwalapur	4	780	1.74	90.51	5.21
15.	EDD (U), Haldwani	2	650	1.92	108.03	5.63
16.	EDD, Ramnagar	3	830	2.10	118.81	5.65
17.	EDD (R), Haldwani	2	699	0.70	43.63	6.25
18.	EDD, Almora	4	926	1.42	82.89	5.84
19.	EDD, Bageshwar	3	265	0.62	34.96	5.61
20.	EDD, Pithoragarh	3	2250	8.09	430.12	5.32
21.	EDD, Champawat	7	2684	4.06	232.78	5.74
22.	EDD, Dharchula	2	1175	1.48	84.06	5.69

In order to assess normative ABR on the basis of Rate Schedule approved by the Commission, the Commission has computed the same considering the energy charges and fixed charges applicable for the consumers considering the consumption per kW per month for the respective divisions. Based on the normative ABR and revenue booked, excess sales to be disallowed has been computed for each division. The excess sales to be disallowed for the above divisions is as shown below:

Table 4.13: Excess Sales to be disallowed for Mixed Load

S. No.	Name of Division/Circles	Load (KW)	Energy Sold (MU)	Revenue Booked (Rs. Lakh)	ABR actual (Rs./kWh)	Consumption /kW/Month	ABR (Normative) Rs./kWh	Excess Sales (MU)
1.	EDD, Raipur	772	1.01	54.13	5.35	109.24	6.14	0.130
2.	EDD, Rishikesh	1787	7.06	392.49	5.56	329.23	5.58	0.023
3.	EDD (N), Dehradun	9490	27.64	1541.62	5.58	242.73	5.68	0.481
4.	EDD (S), Dehradun	6110	19.82	1087.31	5.48	270.38	5.64	0.537
5.	EDD (C), Dehradun	100	0.23	13.29	5.70	194.17	5.77	0.003
6.	EDD, Tehri	5625	19.36	861.66	4.45	286.87	5.62	4.027
7.	EDD, Uttarkashi	315	0.58	33.87	5.84	153.44	5.89	0.005
8.	EDD, Srinagar	256	0.59	31.78	5.36	193.03	5.77	0.042
9.	EDD, Kotdwar	1636	4.48	251.61	5.62	228.20	5.70	0.066
10.	EDD, Gairsain	434	0.76	44.30	5.86	145.16	5.93	0.009
11.	EDD, Gopeshwar	1495	3.70	195.37	5.28	206.35	5.74	0.300
12.	EDD (U), Roorkee	12172	35.61	1915.96	5.38	243.78	5.67	1.842
13.	EDD (R), Hardwar	125	0.48	23.78	4.97	318.80	5.59	0.053
14.	EDD, Jwalapur	780	1.74	90.51	5.21	185.58	5.79	0.174
15.	EDD (U), Haldwani	650	1.92	108.03	5.63	246.15	5.67	0.015
16.	EDD, Ramnagar	830	2.10	118.81	5.65	211.04	5.73	0.029
17.	EDD (R), Haldwani	699	0.70	43.63	6.25	83.21	6.40	0.016
18.	EDD, Almora	926	1.42	82.89	5.84	127.70	6.01	0.041
19.	EDD, Bageshwar	265	0.62	34.96	5.61	195.91	5.77	0.017
20.	EDD, Pithoragarh	2250	8.09	430.12	5.32	299.44	5.60	0.411
21.	EDD, Champawat	2684	4.06	232.78	5.74	125.99	6.02	0.194
22.	EDD, Dharchula	1175	1.48	84.06	5.69	104.75	6.17	0.115
Total								**8.53**

Accordingly, based on the above, the total re-casted sales for Mixed Load for FY 2020-21 works out to 161.02 MU as against 169.55 MU submitted by UPCL.

Based on the above analysis, the category wise sales for FY 2020-21 as recasted by the Commission is as shown in the Table below:

Table 4.14: Category-wise Sales for FY 2020-21 (MU)

Categories	Approved in the Tariff Order dated April 18, 2020	Claimed in the Petition	Approved after Truing Up
Domestic (RTS - 1)	3123.11	3307.62	3294.01
Non-domestic, incl. Commercial (RTS - 2)	1413.40	1215.52	1194.01
Govt. Public Utilities (RTS - 3)	643.24	725.08	697.65
Private Tubewell/Pump Sets (RTS - 4)	196.91	225.40	224.85
LT & HT Industry (RTS-5)	6950.17	5763.04	5744.81
Total LT	317.13	311.19	300.57
Total HT	6633.04	5451.85	5444.24
Mixed Load (RTS - 6)	183.55	169.55	161.02
Railway Traction (RTS - 7)	29.27	26.39	26.39
Additional sales (efficiency improvement)	36.56	-	-
Total	**12576.21**	**11432.59**	**11342.74**

4.1.2 *Distribution Losses*

The Petitioner in its Petition has submitted its distribution losses for FY 2020-21 as 13.96%. The Commission for FY 2020-21 had approved the distribution losses of 14.00% based on the loss reduction trajectory approved in the MYT Order for the Control Period from FY 2019-20 to FY 2021-22. However, as per the actual data submitted by the Petitioner and the re-casted sales approved by the Commission, the actual distribution losses for FY 2020-21 works out to 14.64%.

UPCL submitted that it has been making significant efforts to reduce distribution losses and has shown substantial improvement in reduction of distribution losses from FY 2019-20 which has been difficult considering higher growth in sales of LT consumer segment on account of lockdown imposed due to COVID-19 pandemic.

The Commission, in accordance with the approach adopted in its previous Orders, has allowed the actual quantum of power purchase made by the Petitioner. Considering the actual energy input of 13287.59 MU at distribution periphery (T&D interface) for FY 2020-21 and applying the approved loss level of 14.00% for the year, the Commission re-estimated the sales of 11427.33 MU for FY 2020-21. As against this sale of 11427.33 MU, the actual re-casted sales approved by the Commission for FY 2020-21 is 11342.74 MU. Therefore, there is a loss of sales to the tune of 84.59 MU on account of commercial inefficiencies of the Petitioner resulting from its failure to achieve distribution losses target approved by the Commission. The Commission has worked out the average billing rate of Rs. 5.44/kWh on the approved re-casted sales of 11342.74 MU. The Commission for FY 2020-21 has not carried out revenue adjustment for supply of power to UPCL's employees & pensioners as the Average billing rate is similar to the ABR of other domestic consumers. However, the Commission has carried out revenue adjustment towards rebate allowed to certain consumer categories during Covid period by substracting the allowed rebate of Rs. 17.49 Crore which the Petitioner has wrongly claimed under interest on loan. The Commission has further added Rs. 19.31 Crore towards additional relief provided to the consumers over and above the monetary relief received from CPSUs during Covid period. The adjustments have been discussed in detail in the subsequent section. Accordingly, the revenue for FY 2020-21 works out to Rs. 6174.60 Crore. Further, the Commission has computed the additional revenue on account of loss in sales due to higher distribution loss of Rs. 46.05 Crore for FY 2020-21. Moreover, since distribution loss is a controllable parameter, the Commission has carried out the sharing of the impact of excess distribution loss in accordance with the provisions of UERC Tariff Regulations, 2018.

4.1.3 *Power Purchase Expenses (Including Transmission Charges)*

The Petitioner has submitted the power purchase cost (including transmission charges) of Rs. 5574.47 Crore as against the approved expenses of Rs. 6258.03 Crore for FY 2020-21.

The Petitioner further submitted that it has reduced revenue towards sale of surplus power amounting to Rs. 64.91 Crore and Late Payment Surcharge of Rs. 44.80 Crore and has, accordingly, claimed net power purchase cost of Rs. 4568.91 Crore excluding transmission charges.

The Commission in its previous Tariff Orders had laid down the principle for calculating the rate of free power based on the average rate of power purchase from large hydro stations by UPCL. The Commission computed the rate of free power as per the audited accounts as Rs. 2.32/kWh which is the same as booked in the audited accounts and, therefore, no adjustment on account of rate of free power has been carried out.

With regards to the claim of Water Tax amounting to Rs. 173.87 Crore, the Commission sought supporting documents to substantiate the actual expenses incurred towards the same. The Petitioner in its reply dated January 11, 2022, submitted the same. The Commission has gone through the submissions of the Petitioner and has approved the same.

UPCL has claimed PGCIL charges of Rs. 607.03 Crore as against the approved expenses of Rs. 429.89 Crore. It is observed that the variation is on account of (i) UI charges paid amounting to Rs. 81.69 Crore (ii) Short Term Open Access Charges of Rs. 8.80 Crore (iii) Other Charges amounting to Rs. 78.12 Crore which includes arrears of Rs. 36.62 Crore, transmission charges towards 400 kV Sirinagar S/s and PH Line amounting to Rs. 36.81 Crore and Rs. 4.68 Crore towards deferred taxes. The Commission has approved the Inter-State Transmission Charges of Rs 607.03 Crore for FY 2020-21.

However, the Commission would like to point out that Inter-State Transmission charges are increasing as dependency on short term power is also increasing. In FY 2020-21, UPCL had purchased about 1606.38 MU from IEX (Net Purchase) and Tender Purchase at an average rate ranging from Rs. 2.78 per unit to Rs. 4.74 per unit. The Commission had allowed deficit purchase at State periphery at Rs. 4 per unit for FY 2020-21. In the current truing up proceedings, the

Commission is not going into the details of landed price of power procured by UPCL during FY 2020-21 from the energy exchange, as the same would include not only the price of power but SToA charges and PoC losses as well. In this regard, **the Commission directs UPCL to ensure that actual power purchase to meet the deficit should not exceed the rate given by the Commission in the relevant tariff orders at State periphery. Any procurement over and above the rate at the State periphery approved by the Commission shall be disallowed unless prior approval for the same is sought by UPCL.**

With regard to the Intra-State transmission charges, UPCL has claimed PTCUL and SLDC Charges of Rs. 288.82 Crore which includes incentives on account of higher availability. The Commission has approved the Intra-State Transmission Charges and SLDC charges as claimed by the Petitioner.

UPCL submitted that it has fulfilled the RPO targets for FY 2020-21 in accordance with the provisions of the UERC (Tariff and Other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-Generating Stations) Regulations, 2018 and relaxations provided by the Commission vide its Order dated March 17, 2021.

The Commission for allowing the power purchase cost has relied upon the cost booked in the audited accounts and approves the power purchase cost as follows:

Table 4.15: Power Purchase Cost claimed by UPCL and approved by the Commission for FY 2020-21 (Rs. Crore)

Particulars	Claimed by UPCL	Approved by the Commission
Power Purchase Expenses	4568.91	4568.91
Transmission Charges-Inter-State	607.03	607.03
Intra-State Transmission & SLDC Charges	288.82	288.82
Total Power Purchase Cost	**5464.76**	**5464.76**

4.1.4 *Operation and Maintenance (O&M) Expenses*

O&M expenses comprises of Employee Expenses, A&G Expenses and R&M Expenses, i.e. expenditure on staff, administration and general expenses and repairs and maintenance expenses etc. O&M expenses for the second Control Period has to be calculated in accordance with Regulation 84 of UERC Tariff Regulations, 2018 which specifies as under:

"(1) The O&M expenses for the first year of the Control Period will be approved by the Commission taking into account the actual O&M expenses for last five years till Base Year subject to prudence

check and any other factors considered appropriate by the Commission.

(2) The O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. FY 2018-19, shall be approved based on the formula given below:-

O&Mn = R&Mn + EMPn + A&Gn

Where –

- *O&Mn – Operation and Maintenance expense for the nth year;*
- *EMPn – Employee Costs for the nth year;*
- *R&Mn – Repair and Maintenance Costs for the nth year;*
- *A&Gn – Administrative and General Costs for the nth year;*

(3) The above components shall be computed in the manner specified below:

EMPn = (EMPn-1) x (1+Gn) x (1+CPIinflation)

R&Mn = K x (GFAn-1) x (1+WPIinflation) and

A&Gn = (A&Gn-1) x (1+WPIinflation) + Provision

Where -

- *EMPn-1 – Employee Costs for the (n-1)th year;*
- *A&G n-1 – Administrative and General Costs for the (n-1)th year;*

Provision: Cost for initiatives or other one-time expenses as proposed by the Transmission Licensee and approved by the Commission after prudence check.

- *'K' is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*
- *CPIinflation – is the average increase in the Consumer Price Index (CPI) forimmediately preceding three years;*
- *WPIinflation - is the average increase in the Wholesale Price Index (CPI) for immediately*

preceding three years;

- *GFAn-1 – Gross Fixed Asset of the Transmission Licensee for the n-1th year;*
- *Gn is a growth factor for the nth year and it can be greater than or less than zero based on the actual performance. Value of Gn shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking and any other factor that the Commission feels appropriate:*

Provided that repair and maintenance expenses determined shall be utilised towards repair and maintenance works only.

Provided further that, repair and maintenance expenses for IT related assets and non-IT related assets shall be computed separately under these Regulations if the distribution utility maintains separate record of assets wise detail of R&M expenses claimed under these Regulations."

4.1.4.1 Employee Expenses

The Petitioner submitted that the actual gross and net employee expense as per audited account is Rs. 414.45 Crore. The Petitioner further submitted that an amount of Rs. 8.54 Crore of A&G nature was booked under employee expenses and needs to be excluded from employee cost for true up purposes which is towards payment to M/s TDS Management Consultant Pvt Ltd for Mobile billing (Meter reading) expenses. The Petitioner further submitted that it has adjusted the said amount from gross employee expenses and has separately claimed it under A&G Expenses. The Petitioner further submitted that it has capitalized employee expenses of Rs. 58.45 Crore and has claimed net employee expenses of Rs. 347.46 Crore.

The Petitioner submitted that the normative employee expenses for FY 2020-21 has been arrived at as per the methodology adopted by the Commission in its previous orders and in accordance with UERC Tariff Regulations, 2018. The Petitioner further submitted that the opening EMP_{n-1} has been considered as Rs. 382.50 Crore as approved by the Commission in truing up of FY 2019-20 and CPI inflation has been considered as the average increase in the consumer price index for the preceding three years. In the absence of any fresh recruitments during FY 2019-20, the Gn factor has been considered as NIL. Further, actual capitalization rate as per the audited accounts has been considered for arriving at the normative employee cost.

The Petitioner has claimed the normative employee expenses for FY 2020-21 of Rs. 346.15 Crore as shown in the Table below:

Table 4.16: Revised Employee Expenses as claimed by the Petitioner for FY 2020-21 (Rs. Crore)

Particulars	Approved in MYT Order	Revised normative
Emp_{n-1}	382.50	382.50
Inflation Factor	4.22%	5.35%
Growth Factor	0.00%	0.00%
Gross Employee Expenses	398.64	402.98
Capitalisation Rate	18.52%	14.10%
Less: Employee Expenses Capitalised	73.83	56.83
Net Employee Expenses	324.81	346.15

UPCL submitted that the actual expenses of Rs. 347.46 Crore is in the range of normative expenses as worked out above and has requested the Commission to approve the actual employee expenses of Rs. 347.46 Crore.

The Petitioner with regard to the cost of subsidised electricity provided to its employees submitted that employees of UPCL are being given the facility of departmental electricity connection since U.P. State Electricity Board was in existence. Under this facility, a fix lump-sum amount is charged from the employees according to their designation towards electricity charges for electricity supplied to them. The Petitioner further submitted that the erstwhile UPSEB was unbundled under the provisions of Uttar Pradesh Electricity Reforms Act, 1999 and Section 23(7) of the said Act provides that "terms and conditions of service of the personnel shall not be less favorable to the terms and condition which were applicable to them before the transfer". The Petitioner submitted that the same spirit has been echoed under first proviso of Section 133(2) of the Electricity Act, 2003. The benefits for employees / pensioners as provided in Section 12(b)(ii) of the Uttar Pradesh Reform Transfer Scheme, 2000 includes "concessional rate of electricity", which means concession in rate of electricity to the extent it is not inferior to what was existing before 14th January, 2000. The Petitioner further submitted that the rates and charges indicated above for this category are strictly in adherence of above statutory provisions and as UPCL is the successor entity of UPPCL (formed as a result of unbundling of UPSEB), the above legal provisions are also applicable on it (UPCL).

The Petitioner further stressed that the provisions of law in this regard are as follows:

Section – 23 (7) of the Uttar Pradesh Electricity Reform Act, 1999

" The State Government may provide in any of the transfer schemes framed under this section for the transfer of personnel to the Power Corporation or a company subsidiary to the Power Corporation or a generating company, on the vesting of properties, rights and liabilities in the Power Corporation or a company subsidiary to the Power Corporation or a generating company, as a part of the undertakings transferred under this section and on such transfer the personnel shall hold office or service under the Power Corporation or a company subsidiary to it or a generating company, as the case may be, on terms and conditions that may be determined in accordance with the transfer scheme subject however to the following namely:

(a) terms and conditions of service of the personnel shall not be less favorable to the terms and conditions which were applicable to them immediately before the transfer;

(b) the personnel shall have continuity of service in all respect; and

(c) all benefits of service accrued before the transfer shall be fully recognized and taken into account for all purposes including the payment of any or all terminal benefits.

Provided that, notwithstanding anything contained in any other law for the time being in force, and except as provided in the transfer scheme and in this Act, the transfer shall not confer any right on the personnel so transferred to any compensation or damages:

Provided further that the posts in the Board of all the personnel whose services are to be so transferred shall stand abolished with effect from the date of transfer.

Explanation – For the purposes of this section and the transfer scheme, the expression "personnel" means all persons who on the appointed date are the employees of the Board and who under the transfer scheme are given the option to join service under the control of the transfer.

Section – 133 of the Electricity Act, 2003

Provisions relating to officers and employees. - (1) The State Government may, by a transfer scheme, provide for the transfer of the officers and employees to the transferee on the vesting of properties, rights and liabilities in such transferee as provided under section 131.

(2) Upon such transfer under the transfer scheme, the personnel shall hold office or service under the transferee on such terms and conditions as may be determined in accordance with the transfer scheme:

Provided that such terms and conditions on the transfer shall not in any way be less favourable than those which would have been applicable to them if there had been no such transfer under the *transfer scheme:*

Provided further that the transfer can be provisional for a stipulated period.

Explanation. - For the purposes of this section and the transfer scheme, the expression "officers and employees" shall mean all officers and employees who on the date specified in the scheme are the officers and employees of the Board or transferor, as the case may be.

The Clause 12 (b) of the Uttar Pradesh Electricity Reform Transfer Scheme, 2000

The State Government shall make appropriate arrangements in regard to the funding and due payment of the terminal benefits to the existing pensioners of the Board as on the date of the transfer and till such arrangements are made the payment falling due shall be made by the UPPCL, subject to such adjustments as may be decided between the State Government and the UPPCL.

For the purpose of this sub-clause the term-

(i) Existing Pensioner" means all the persons eligible for the pension as on the date of the transfer from the Board and shall include family members of the personnel as per the applicable, Scheme and

(ii) "Terminal Benefits" means the gratuity, pensions, dearness and other applicable relief, medical benefit, concessional rate of electricity and other applicable benefits including the right to have the appropriate revisions in the above benefits consistent with the practice that were prevalent in the Board.

The Petitioner further submitted that the Commission in its Tariff Order dated September 08, 2003 at Para 4.4.3 held as follows:

"Section 62(3) of The Electricity Act, 2003 reads as follows:

"The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required."

In light of the above provision of law, the Commission while fixing consumer tariffs has refrained from discriminating between consumers except for specified categories and based on grounds permitted above. As a result, special tariffs for Public Institutions and Departmental Employees in Petitioner's current tariff schedule cannot be retained. ***The Petitioner is hereby directed to ensure that commitments made to its employees in the past are fully met with by***

evolving appropriate mechanism for compensating the employees to the extent required. Same should apply to UJVNL also, who have intervened on behalf of their staff on this issue."

The Petitioner submitted that all the three corporations, i.e. UPCL, UJVNL and PTCUL vide their combined office memorandum no. 5391/UPCL/RM/N-36 dated July 17, 2020 revised the fixed charges and imposed caps on electricity consumption by the working/ retired employees and family pensioners of UPCL, UJVNL and PTCUL from July 01, 2020. It further submitted that the consumption over and above the cap fixed shall be charged at the rates specified for domestic category. Based on the above submissions and provisions of transfer scheme and the Commission's Order, the Petitioner submitted that the cost towards free electricity needs to be allowed under employee expenses as it is akin to any other facility / part of the salary structure of the employees.

The Petitioner stated that it has been operating with a very lean workforce and that its actual no. of employees are much lower than the sanctioned strength. Further, the employees are paid strictly as per the pay scales of the Government of Uttarakhand which may/may not remain aligned to the CPI increase as per normative approach. Non-consideration of actual amount paid to the employees would, therefore, lead to a financial burden to the Petitioner and as the actual expenses are in line with the normative expenses the Petitioner requested the Commission not to deduct such expenses while approving employee expenses for FY 2020-21.

The Commission had approved the normative gross employee expenses of Rs. 382.50 Crore for FY 2019-20 during truing up. Considering the same as the base and in accordance with the UERC Tariff Regulations, 2018, the Commission has computed the normative employee expenses for FY 2020-21. Regarding the growth factor, the Commission observed that since number of employees have reduced in FY 2020-21, therefore, the Gn has been considered as zero. The employee expenses so computed has then been escalated by the CPI inflation of 5.35%.

The Commission further observed that a cost of Rs. 10.20 Crore was booked towards subsidised electricity provided to the employees and pensioners of UPCL. The Petitioner conveniently referred to the Commission's Order dated 08.09.2003, wherein the Commission had directed it to ensure that commitments made to its employees in the past are fully met with by evolving appropriate mechanism for compensating the employees to the extent required. However, it ignored the spirit of the directions of the Commission which had been mentioned in the said

Order wherein the Commission had held that while fixing consumer tariffs it had refrained from discriminating between consumers, and as a result, special tariffs for Public Institutions and Departmental Employees in Petitioner's tariff schedule were abolished. Infact, Clause 12 (b) of the Uttar Pradesh Electricity Reform Transfer Scheme, 2000 provided that the State Government shall make appropriate arrangements in regard to the funding and due payment of the terminal benefits to the existing pensioners of the Board as on the date of the transfer wherein "Terminal Benefits" means the gratuity, pension, dearness and other applicable relief, medical benefit, *concessional rate of electricity* and other applicable benefits.

Further, the Commission in its Order dated March 21, 2018 with regard to accounting of concessional supply to its employees had ruled that if UPCL intends to give benefit of concessional electricity supply to its employees it can do so from its own resources and the same cannot be passed on to the consumers. The Commission in the said Order also directed the Petitioner as follows:

> *"Accordingly, the Commission further to streamline the accounting of departmental employee consumers directs the Petitioner to bill all departmental employees consumers including pensioners on the basis of rates approved for RTS-1 Domestic Category from April 01, 2018. The Petitioner shall include the consumption and revenue details of these consumers at the Tariff Rates applicable to domestic consumers in the monthly CS-3 and CS-4 statements. As regards the concession provided to these consumers, the Petitioner is directed to show the same separately as expenses in its accounts."*

The Commission in light of the above discussions has, therefore, deducted the above amount for computing actual employee expenses for FY 2020-21. UPCL is advised to provide any benefits to its consumers out of its own resources or seek assistance from the Government in accordance with Clause 12(b) of the Uttar Pradesh Electricity Reform Transfer Scheme, 2000 referred above. **UPCL is once again directed to ensure compliance of the directions of Commission given in the Tariff Order dated March 21, 2018 in this regard failing which action may be taken against it for non-compliance of the orders of the Commission.**

The Commission has computed the capitalisation rate of employee expenses as worked out based on audited accounts of FY 2020-21 based on the actual employee expenses capitalized which works out to 14.10% and is same as that considered by the Petitioner.

The normative employee expense approved by the Commission for FY 2020-21 is as shown in the Table below:

Table 4.17: Approved Employee Expenses for FY 2020-21 (Rs. Crore)

<table>
<tr><th rowspan="2">Particulars</th><th rowspan="2">Approved in the Tariff Order</th><th rowspan="2">Actual as per Audited Accounts</th><th rowspan="2">Actual for truing up</th><th colspan="2">Normative</th></tr>
<tr><th>Claimed by UPCL</th><th>Approved</th></tr>
<tr><td>EMPn-1</td><td>382.50</td><td rowspan="8">347.46*</td><td rowspan="8">347.46</td><td>382.50</td><td>382.50</td></tr>
<tr><td>Gn</td><td>0.0%</td><td>0.00%</td><td>0.00%</td></tr>
<tr><td>CPIinflation</td><td>4.22%</td><td>5.35%</td><td>5.35%</td></tr>
<tr><td>EMPn = (EMPn-1) x (1+Gn) x (1+CPIinflation)</td><td>398.63</td><td>402.98</td><td>402.96</td></tr>
<tr><td>Capitalisation rate</td><td>18.52%</td><td>14.10%</td><td>14.10%</td></tr>
<tr><td>Less: Employee expenses capitalized</td><td>73.82</td><td>56.83</td><td>56.83</td></tr>
<tr><td>Net Employee Expenses</td><td>324.81</td><td>346.15</td><td>346.13</td></tr>
<tr><td>Impact of enhanced Pension & Pay Commission</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Less: Subsidised Electricity to Employees</td><td></td><td></td><td>10.20</td><td></td><td>-</td></tr>
<tr><td>Total Employee Expenses</td><td>324.81</td><td>347.46</td><td>337.26</td><td>346.15</td><td>346.13</td></tr>
</table>

**** Adjustment of Mobile billing expenses of Rs.8.54 Cr to be taken under A&G head***

4.1.4.2 *Repair and Maintenance*

The Commission had approved the R&M expenses of Rs. 175.10 Crore for FY 2020-21 in its Order dated April 18, 2020. As against the same, the actual R&M expenses for FY 2020-21 as per the audited accounts are Rs. 194.87 Crore. The Petitioner submitted that GFA approved by the Commission does not include assets for which Electrical Inspector Certificates are pending and, hence, does not reflect correct GFA for the purpose of R&M Expenses. The Petitioner requested the Commission to consider the opening GFA for FY 2020-21 as Rs. 5558.81 Crore for allowing R&M expenses. The Petitioner submitted that the normative R&M expenses computed considering the opening GFA of Rs. 5558.81 Crore are almost equal to the actual expenses and the same be allowed.

The Petitioner further submitted that it is ensuring 23-24 hrs of quality and reliable supply to the consumers of the State even to the rural consumers. It further submitted that with ageing of the distribution network more and more R&M expenses would be required for its upkeep. The Petitioner further submitted that historically determined 'K' factor would suppress the approval of R&M expenses since the same is based on conservative expenditure undertaken in the past on account of skewed financial health of the utility and disallowances in actual R&M expenses and submitted that it would be unjust to disallow the actual R&M expenses undertaken by the utility.

The Commission in its Order dated February 27, 2019 had considered the 'K' factor of 3.06%

for computation of the normative R&M expenses for FY 2020-21 in accordance with the UERC Tariff Regulations, 2018. With regard to pending Electrical Inspector Certificate, the Petitioner in the current proceedings, through various submissions has submitted the HT/LT bifurcation of the assets and has provided some Electrical Inspector Certificates for the HT works capitalised during FY 2016-17 to FY 2019-20. The Commission with regard to Electrical Inspector Certifcates while carrying out truing up for FY 2019-20 observed as follows.

"The Commission examined the Electrical Inspector certificates submitted by the Petitioner and observed as follows:

i) Duplicate EI certificates towards same works were submitted for certain projects.

ii) Some EI certificates were not legible, hence, works cannot be ascertained.

iii) EI certificates did not reconcile with the schemes provided in the summary of the covering letter.

iv) Multiple EI certificates for 7-8 schemes issued by same Electrical Inspector on a single day.

v) Details of work inspected not mentioned specifically.

In this regard, the Commission sought information from UPCL in response to which it was submitted by the Petitioner that the field units of UPCL were engaged in the Revenue Collection drive as the month of March being the peak month of revenue collection, and the information collation would take a lot of time, therefore, the submission of the requisite information seems quite difficult and time taking. The Petitioner, accordingly, requested the Commission to grant waiver from submission of the same.

The Commission analysed the submission made by the Petitioner and did not find it satisfactory in view of the fact that the Petitioner had enough time to reconcile and submit the requisite data that relates to past years from FY 2016-17 to FY 2018-19. The same issue has also been qualified by the statutory auditor of UPCL in its Report wherein it has been stated that the Company does not have an appropriate internal control system for ensuring capitalization of assets when it is ready for use. The auditor has further reported that the Company has not maintained proper records for Fixed assets showing full particulars including quantitative details and location of fixed assets and that the physical verification of fixed assets has not been carried out. All this and Commission's queries on the Electrical Inspector Certificate submitted by UPCL creates doubt on the genuineness of the claims of UPCL. ***UPCL is directed to devise a proper system of internal control which should include how and when an asset should be capitalized and how the accounting treatment should be***

done including physical verification of the same."

However, no compliance has been reported by UPCL of the said directions. In view of the above, the Commission in the current proceedings vide its letter dated February 22, 2022, asked the Petitioner to remedy the above defects in the earlier submissions. The Petitioner could not address the above observations. The Commission, has, therefore, for computation of R&M expenses for FY 2020-21, has provisionally considered the past years actual capitalization from FY 2016-17 to FY 2019-20. In this regard, it would be relevant to point out that the Petitioner has considered erroneous opening value of GFA of Rs. 5558.81 Crore as on 01.04.2020 against Rs. 5867.65 Crore considering all the actual additional capitalisation. **UPCL is directed to rectify all the anomalies and Commission's observations within six months from the date of this Order, failing which the Commission shall carry out necessary adjustments along with carrying cost.**

The Commission further observed that expenses of the nature of R&M of Rs. 2.03 Crore towards AMC of hardware was booked under A&G expenses which have been shifted from A&G expenses to R&M expenses.

The Commission for truing up of FY 2020-21 has considered the same K factor and has reworked the R&M expenses considering the Opening GFA for FY 2020-21 as Rs. 5867.65 Crore. The Commission has considered the inflation factor as 2.96%, as the average of WPI inflation for the preceding three years of FY 2020-21. The normative R&M expenses trued up by the Commission for FY 2020-21 is as shown in the Table below:

Table 4.18: Approved R&M Expenses for FY 2020-21 (Rs. Crore)

Particulars	Approved in the Tariff Order	Actual as per Audited Accounts	Actual Approved	Normative	
				Claimed by UPCL	Approved
R&M Expenses	175.10	194.87	196.90*	175.13	185.10

****includes Rs. 2.03 Cr. expenses towards AMC of Hardware which was wrongly booked under A&G Expenses***

4.1.4.3 A&G Expenses

The Commission had approved the A&G expenses of Rs. 54.28 Crore for FY 2020-21 in its Tariff Order dated April 18, 2020. As against the same, the actual net A&G expenses for FY 2020-21 as per the audited accounts was Rs. 50.04 Crore.

As also discussed in the preceding section, the Petitioner has submitted that an expense of Rs. 8.54 Crore towards mobile billing expenses were wrongly booked under employee expenses and, hence, the same have been deducted from employee expenses and included in claimed A&G expenses.

The Petitioner further submitted that during the year, the Company has borne contractual damages of Rs. 14.95 Crore. The said damages were due to non-payment of dues, owed on account of capital works performed in excess of the work agreed upon, in the agreement entered with M/s Jitco Overseas Projects & M/s JOP Power Infra Engineering Ltd. the damages were ascertained vide order dated 09-01-2019 by the sole arbitrator appointed by Hon'ble High Court of Nainital. The Petitioner submitted that the settlement agreement has been executed with M/s Jitco Overseas Projects & M/s JOP Power Infra Engineering Ltd. on December 19, 2020 and, thereafter, it has paid the damages due in current financial year. The Petitioner further submitted that the said expense is shown in Note 26 as Exceptional item and is being claimed as part of A&G expenses. The Petitioner further submitted that any judicial pronoucements and orders of the Central or State Government or Commission are classified as uncontrollable factor under Regulation 12(5)(b) of the UERC Tariff Regulations, 2018.

The Petitioner requested the Commission to allow the A&G expenses on actual basis. UPCL further submitted that the Commission has been allowing Data Centre expenses and License fee on actual basis over and above the normative expenses. However, due to the normative approach, the inflation of 3-4% in the past was insufficient to come to the level of actual expenses. For example, the expenses under the head of rent, rates and taxes are uncontrollable and desires treatment akin to License fee. The travelling and conveyance expenses have been increasing and are directly linked to fuel and other inflationary increases. The Petitioner requested the Commission to invoke its powers under Regulation 103(2) read with 103(1) of the UERC Tariff Regulations, 2018 and allow the actual A&G expenses for FY 2020-21.

The actual expenses claimed includes cost against data centre of Rs. 11.90 Crore and Licence fee of Rs. 3.66 Crore.

The Commission examined the actual A&G expenses of UPCL for FY 2020-21 and sought break up of expenses claimed under legal and professional fees along with copy of contracts. On examination of the same it was observed that total amount of Rs. 10.32 Crore was incurred under this head. This included PMA charges of Rs. 5.01 Crore, Rs. 1.00 Crore paid to Advocates, Rs. 1.53 towards consultancy and technical support. It is observed that the PMA charges have increased from Rs. 2.84 Crore in FY 2019-20 to Rs 5.01 Crore in FY 2020-21. The Commission is of the opinion that such expenses are controllable and can be reduced if the appointments of such consultants/ professionals are made judiciously and in a transparent manner. In the current proceedings, the Commission is not taking any view on the same, however, if this trend continues the Commission may resort to going into the merits of such expenses.

With regards to Rs. 8.54 Crore expenses towards mobile billing expenses, the Commission sought the details of works included in the same. The Petitioner in its reply submitted the break up of such expenses along with copy of contracts and, therefore, the same has been considered by the Commission.

With regard to contractual damages of Rs. 14.95 Crore paid to M/s Jitco Overseas Projects, the Commission after perusal of Arbitration Orders observed that the reason for such expenses were on account of additional works which were done by the contractor but were not paid by UPCL. It was further observed that there was delay in handing over of site to the contractor which also resulted in the dispute. The same reflects to the inefficiencies of UPCL. Besides they have also accepted the damages awarded by the Arbitrator and had not challenged it which also indicated their admittance of fault. Hence, after perusal of the same, the Commission is of the view that the reasons for incurring such expenses were neither totally controllable nor entirely uncontrollable and, therefore, only 50% of the cost has been allowed in terms of principles laid out by Hon'ble APTEL in its Judgment dated April 27, 2011 in Appeal No. 72 of 2010.

The Commission also observed that the Petitioner has included cost of Rs. 2.03 Crore towards AMC of hardware as part of A&G Expenses. As discussed in the Section dealing with R&M expenses, the said expenses have been shifted to R&M expenses and have been deducted from the actual A&G expenses.

It is to be noted when the expenses are allowed on normative basis, the actual expenses may be higher or lower in comparison to the normative expenses. It is for this reason, the MYT Regulations, 2018 provides for sharing of gains and losses in controllable factors. Section 61 of the Electricity Act, 2003 also lays down that the Tariff Regulations should be guided by factors that would encourage efficiency, economical use of resources, good performance and optimum investments.

The Commission has duly considered the heads under which the actual expenses need to be considered, the same being beyond the control of the Petitioner, and does not need any further explanation. Therefore, the Commission does not find it prudent to exercise its powers under Regulation 103 and allow the actual A&G expenses for FY 2020-21 as claimed by the Petitioner. Moreover, it is incomprehensible to understand that on one hand its employee strength is reducing and on the other the travelling & other related expenses are increasing which reflects towards wasteful expenditure which can be controlled by proper checks.

The Commission had approved the trued up normative gross A&G expenses of Rs. 29.46 Crore for FY 2019-20. Considering the same as the base and in accordance with the UERC Tariff Regulations, 2018, the Commission has computed the normative A&G expenses for FY 2020-21. The Commission had considered WPI inflation as 2.96% which is the average of WPI Inflation for the preceding three years of FY 2020-21. The Commission has considered the capitalisation of expenses in the same proportion of actual capitalisation of expenses to the actual gross A&G expenses excluding provision & licence fees.

The normative A&G expense including licence fees and data centre cost approved by the Commission for FY 2020-21 is as shown in the Table below:

Table 4.19: Normative A&G expenses approved for FY 2020-21 (Rs. Crore)

Particulars	Allowable
A&Gn-1	29.46
WPIinflation	2.96%
Gross A&G expenses	30.34
Capitalisation rate	34.87%
Less: A&G expenses capitalised	10.58
Net A&G expenses	**19.76**
Provision & License fee	24.10
Arbitration Ward – M/s Jitco Overseas Ltd.	7.47
A&Gn = A&Gn-1 x (1+WPIinflation) + Provision	**51.33**

The A&G expense claimed and approved by the Commission for truing up including licence fees and data centre costs approved by the Commission for FY 2020-21 is as shown in the Table below:

Table 4.20: Approved A&G expenses for FY 2020-21 (Rs. Crore)

Particulars	Approved in the Tariff Order	Actual as per Audited Accounts	Actual for sharing	Normative	
				Claimed by UPCL	Approved
A&G expenses	54.28	72.19*	62.69	72.19	51.33

** Net A&G expenses including data centre cost, provisioning towards mobile billing and payment towards arbitration award.*

Accordingly, the Commission has allowed the O&M Expenses as shown in the Table below:

Table 4.21: Approved O&M Expenses for FY 2020-21 (Rs. Crore)

S. No.	Particulars	Approved in the Tariff Order	Actual as per Audited Accounts	Actual for sharing	Normative	
					Claimed by UPCL	Approved
1.	Employee expenses	324.81	347.46	337.26	347.46	346.13
2.	R&M expenses	175.10	194.87	196.90	194.87	185.10
3.	A&G expenses	54.28	72.19	62.69	72.19	51.33
Total		**554.19**	**614.52**	**596.85**	**614.52**	**582.57**

The normative O&M expenses approved by the Commission in the true up are higher in comparison to the normative O&M expenses approved in the Tariff Order mainly on account of variation in capitalization rate and CPI & WPI Inflation.

As O&M expenses are controllable in nature, the Commission has further carried out sharing on account of actual and normative O&M expenses in the subsequent section of this Order.

4.2 Cost of Assets and Financing

4.2.1 *Capital cost of Original Assets*

As regards the capital cost of original assets, the Commission vide its Order dated April 11, 2015 held as under:

*"**3.2.5.1 Capital Cost of Original Assets***

The Commission observed that the issue of original value of fixed assets for the Petitioner examined in detail in Paras 5.3.1 and 5.3.2 of the Order dated April 25, 2005. For reasons provided in the said Order, the original value of GFA as on November 09, 2001 was fixed at Rs. 508 Crore for the Petitioner, instead of the value of Rs. 1058.18 Crore assigned in the Provisional Transfer Scheme. The Commission had already recorded the reasons for the same in its previous Tariff Orders. Since, there is no change in the factual position and the matter is pending before the Hon'ble ATE, the Commission decides to maintain Status-quo ante."

In this regard, Hon'ble ATE in its Judgment dated May 18, 2015 in Appeal No. 180 of 2013 ruled as under:

"25. We feel that since it is matter of transfer scheme and apportioning of value of assets between two States after reorganization, the Appellant should take up the matter with State Government for issuance of notification on transfer of assets to Uttarakhand from UP. Accordingly decided."

In light of the Judgment of the Hon'ble ATE, the Commission in its Tariff Order dated April 05, 2016 did not find the need to revise the capital cost of original assets from the earlier approved value of Rs. 508 Crore for the Petitioner.

The Government of Uttarakhand vide its Notification dated March 08, 2022 sanctioned the Scheme for division of assets and liabilities executed between Uttar Pradesh Power Corporation Ltd. and Uttarakhand Power Corporation Ltd. on October 12, 2003. The aforesaid Notification further stated that GFA amounting to Rs. 1058.18 Crore is included in the notified Scheme. The Commission has taken note of the Notification, however, as the Notification was issued post completion of public hearings and since the Petitioner has not filed any consequential claims on this account and also the matter was not heard before the stakeholders, the Commission in the current tariff proceedings has not considered the same. The Petitioner is, however, at liberty to claim the same in the next tariff filing.

The Commission vide its Order dated April 05, 2016, March 29, 2017, March 21, 2018, February 27, 2019, April 18, 2020 and April 26, 2021 has already carried out the truing up till FY 2019-20. The year wise GFA addition allowed by the Commission till FY 2019-20 is as shown below:

Table 4.22: Assets base approved by the Commission after truing up (Rs. Crore)

Particulars	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015 - 16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Opening Balance	1540.46	1698.88	2019.76	2449.87	2787.04	3017.55	3202.56	3695.78	3980.56	4198.30	4573.63	5148.10
Net additions	158.42	320.88	430.11	337.17	230.50	185.01	493.22	284.78	217.74	375.33	574.47	90.54
Closing Balance	**1698.88**	**2019.76**	**2449.87**	**2787.04**	**3017.55**	**3202.56**	**3695.78**	**3980.56**	**4198.30**	**4573.63**	**5148.10**	**5238.64**

With regard to FY 2020-21, the Petitioner has claimed a net capitalisation of Rs. 797.45 Crore as per audited accounts. The Petitioner was directed to submit the segregation of fixed assets added into HT and LT works and to submit the Electrical Inspector clearance for HT works for FY 2020-21 alongwith all the pending capitalisation which were disallowed in FY 2016-17 to FY 2019-20. The Petitioner through various submissions has claimed to submit the EI certificates for all past works till FY 2019-20 along with the amount of LT works carried out from FY 2016-17 to FY 2019-20. The Petitioner has further claimed to submit the details of around Rs. 752.67 Crore out of Rs. 866.59 Crore (Gross Capitalisation) claimed in FY 2020-21. The status of capitalisation details submitted by the Petitioner is as shown below.

Table 4.23: Pending Electrical Inspector Certificates (Rs. Crore)

Particulars	Gross Capitalisation	Trued Up in Previous Orders	Details Provided now	Total Submitted	Balance Pending
FY 2016-17	321.99	308.56	13.43	321.99	-
FY 2017-18	465.14	387.59	77.55	465.14	-
FY 2018-19	1009.9	828.65	181.25	1009.9	-
FY 2019-20	424.43	123.25	301.18	424.43	-
FY 2020-21	866.59	-	803.15	803.15	63.44
Total	**3088.05**	**1648.05**	**1376.56**	**3024.61**	**63.44**

The Commission, as discussed earlier in preceding paras, regarding Electrical Inspector Certifcates, while carrying out truing up for FY 2019-20 observed as follows.

"The Commission examined the Electrical Inspector certificates submitted by the Petitioner and observed as follows:

i) Duplicate EI certificates towards same works were submitted for certain projects.

ii) Some EI certificates were not legible, hence, works cannot be ascertained.

iii) EI certificates did not reconcile with the schemes provided in the summary of the covering letter.

iv) Multiple EI certificates for 7-8 schemes issued by same Electrical Inspector on a single day.

v) Details of work inspected not mentioned specifically.

In this regard, the Commission sought information from UPCL in response to which it was submitted by the Petitioner that the field units of UPCL were engaged in the Revenue Collection drive as the month of March being the peak month of revenue collection, and the information collation would take a lot of time, therefore, the submission of the requisite information seems quite difficult and time taking. The Petitioner, accordingly, requested the Commission to grant waiver from submission of the same. "

The Commission further directed the Petitioner as follows:

*"…. **The Commission directs the Petitioner to submit the complete requisite information within 6 months from the date of this Order or otherwise, the Commission shall not allow the disallowed capitalisation for FY 2019-20**."*

It is observed that the Petitioner did not comply with the above. The Commission in the current proceedings vide its letter dated February 22, 2022, provided the Petitioner another opportunity to remedy the above. The Petitioner, however, could not remedy the above defects.

It is observed that the Petitioner on one hand is making submissions before the Commission that it is facing severe cash flow issues and on the other hand it is falling behind in claiming ARR by furnishing proper capitalisation details. This exhibits a callous and indifferent approach in complying with the directions of the Commission. Since, the delay is on account of the inefficiency of the Petitioner, hence, no carrying cost will be allowed to the Petitioner for delayed approval of pending capitalisation of FY 2016-17, FY 2017-18, FY 2018-19 & FY 2019-20. **The Commission is further of the view that unless the complete capitalisation details for FY 2016-17 to FY 2019-20 is provided, truing up for these years shall not be done. The Commission has, however, allowed the impact of capitalisation details submitted for FY 2016-17 to FY 2019-20 in the truing up for FY 2020-21.**

The Petitioner has submitted the details of LT works (including other assets) amounting to Rs. 457.05 Crore and Electrical Inspector Certificate for works amounting to Rs. 346.10 Crore capitalized during FY 2020-21. The Commission has considered pro-rata Decapitalization against these assets amounting to Rs. 64.09 Crore based on deletions of assets, as per books of accounts in FY 2020-21.

The Commission has, therefore, approved net additional capitalisation of Rs. 739.06 Crore for FY 2020-21.

The Commission has, therefore, approved Opening GFA and net additions for FY 2020-21 as follows:

Table 4.24: Assets base approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening Balance	3980.56	4218.85	4616.40	5554.13	5867.65
Net additions	238.29	397.55	937.73	313.52	739.06
Closing Balance	4218.85	4616.40	5554.13	5867.65	6606.71

4.2.2 *Financing of Capital Cost*

4.2.2.1 *Truing Up of Capital Related Expenses for FY 2020-21*

The Petitioner has claimed net GFA addition of Rs. 797.45 Crore for FY 2020-21. The means of finance submitted by the Petitioner in its Petition was erroneous as the Equity claimed was 45.70% of the total capitalisation and, therefore, the Petitioner was asked to rectify the same. The Petitioner vide its reply dated Januray 11, 2022 submitted revised means of finance as shown in the Table below:

Table 4.25: Means of Finance for FY 2020-21 as submitted by the Petitioner (Rs. Crore)

Particulars	Amount
Loan	368.51
Deposit Works	269.44
Grant	
Internal resources	159.50
Total	**797.45**

As discussed above, the Commission has approved net additional capitalisation of Rs. 739.06 Crore during FY 2020-21. The pro-rated means of finance as approved by the Commission is as follows:

Table 4.26: Means of Finance as approved by the Commission for FY 2020-21 (Rs. Crore)

Particulars	Amount
Loan	342.55
Grant/Deposit Works	249.71
Equity	146.81
Total	**739.06**

4.2.2.1.1 *Interest and Finance Charges*

The Petitioner has claimed Interest and Finance Charges of Rs. 188.63 Crore for FY 2020-21 against the amount of Rs. 137.46 Crore approved by the Commission in the Tariff Order dated April 18, 2020.

The Petitioner submitted that it has claimed interest expenses as per the audited accounts after considering the following adjustments:

a) Interest on REC (Old) loans has been taken in accordance with the re-schedulement package of REC (Old) loans determined by the Commission in its Tariff Order for FY 2009-10 dated 23rd October, 2009.

b) Government Guarantee fees has been considered as per the audited accounts.

c) Interest on consumer security deposit has been claimed as per the actual interest paid.

d) The Petitioner has not considered the interest on GPF as per audited accounts. The Petitioner submitted that the GoUk has in the past refused to provide support on account of Interest on GPF. The Petitioner added that GoU is already bearing the terminal liability of the old employees unlike other States.

e) Provision for interest on loans towards assets which shall be converted to grants after successful implementation of the works have been excluded.

f) Other financial and bank charges have been considered after reducing the interest on overdraft / short term loans.

g) Rebate for online payment.

h) Actual interest accrued during the year has been claimed which is net off capitalisation as follows:

Table 4.27: Interest expense on capital loans as submitted by the Petitioner for FY 2020-21 (Rs. Crore)

Particulars	As per Accounts
Net Interest Expenses as per Accounts	**189.73**
Less:	
Interest on GPF	13.01
Interest on Old REC Loans	6.72
Interest on Consumer Security Deposits	39.33
Guarantee Fee	0.55
Interest on Bank Short Term Loan/ Overdraft	38.33
Bank Charges & Other Commission	4.07
Rebate towards Online Payment	17.49
Net Interest Expense Claimed towards Capitalized Assets	**70.24**

Regulation 27 of the UERC Tariff Regulations, 2018 specifies the methodology for computation of interest expenses. The Commission in accordance with the above Regulations has worked out the Interest and Finance Charges for FY 2020-21 considering the loan amount corresponding to the assets capitalised in the year based on the approved means of finance, and the interest rate of 10.22% computed on the basis of weighted average interest rate on the actual loan portfolio, i.e. opening loan as reduced by average repayment during the year.

The Petitioner has claimed interest on consumers' security deposits (CSD) for FY 2020-21 as Rs. 82.73 Crore. The Commission sought the actual amount of interest on consumer security deposit paid. The Petitioner in its reply submitted that actual payment towards the same was Rs. 82.73 Crore. The Commission has approved the interest on CSD for FY 2020-21 as Rs. 82.73 Crore on cash basis.

Further, the interest on REC Old Loan has been allowed as claimed by UPCL. The Petitioner has claimed guarantee fee of Rs. 0.55 Crore for FY 2020-21. The Commission has considered the same as claimed by the Petitioner.

Regarding the claim of Rs. 17.49 Crore incurred on account of Rebate provided towards Covid relief to certain consumer categories, the Commission is of the view that cost incurred towards providing relief cannot form part of Interest expenses and should be accounted in the same manner as other rebates are accounted for, which is as part of revenue. The Commission has, therefore, not considered the cost as part of interest expenses and has instead reduced the said amount from Revenue while computing Gap/Surplus for FY 2020-21.

The Commission has worked out the Interest and Finance Charges for FY 2020-21 considering the loan amounts corresponding to the assets capitalised in the year based on the approved means of finance, as shown in the Table below:

Table 4.28: Interest and Finance Charges approved for FY 2020-21 (Rs. Crore)

Particulars	Tariff Order	Claimed by UPCL	Approved
Interest on Loan corresponding to assets capitalised	67.19	70.24	68.32
REC Old Loan	11.49	13.56	13.56
Interest on Normative Loans	-	-	-
Guarantee Fee	1.52	0.55	0.55
Financing Charges	3.52	4.07	4.07
Interest on Security Deposit	53.74	82.73	82.73
Rebate towards Online Payment	-	17.49	-
Net Interest and Finance Charges	**137.46**	**188.63**	**169.23**

4.2.2.1.2 Depreciation

The Petitioner submitted that the Commission has been allowing depreciation on opening GFA as the same was provided in the notes to accounts for the respective years. For FY 2020-21, the depreciation in the audited accounts has been computed on pro-rata basis from the beginning of next month in which asset is available for use. The Petitioner submitted that it has calculated depreciation on the average GFA for FY 2020-21 considering the depreciation rate of 5.53%. The Petitioner has, accordingly, claimed total depreciation of Rs. 167.21 Crore as against Rs. 167.47 Crore approved by the Commission in the Tariff Order for FY 2020-21.

The Commission has allowed depreciation at a weighted average rate of 5.53% based on the audited balance sheet for FY 2020-21. Further, the Commission in the past has been allowing depreciation on the value of opening GFA keeping in line with the practice being followed by the Petitioner of capitalising the asset in its accounts on the last day of the financial year. Moreover, the statutory auditor of UPCL in its Report has given its findings on the capitalisation of assets wherein it has been stated that the Company does not have an appropriate internal control system for ensuring capitalization of assets when it is ready for use. Merely mentioning that depreciation in the audited accounts has been computed on pro-rata basis from the beginning of next month in which asset is available for use does not suffice. Moreover, assets in the nature of HT works cannot be put to use or capitalised before obtaining clearances from the Electrical Inspector. Hence, UPCL shall have to justify its statements when the Auditor has itself mentioned that the Company has not maintained proper records for Fixed Assets showing full particulars including quantitative details and location of fixed assets. The auditor also pointed out that no internal control system have been put in place to ensure the capitalization of assets is on the date when it is available for use due to delay in issuance of work completion certificate. Besides impact of the change in accounting policy has also not been provided by the Petitioner. The relevant extract of auditor's report dated 25.11.2021 w.r.t. financial statements of the FY 2020-21 is reproduced hereunder:

"The Company does not have an appropriate qinternal control systems for ensuring capitalization of property plant and equipment on the date when it is available for use, due to delay in issuance of work completion certificate by respective engineering departments, which has potentially resulted into under capitalization of property plant and equipment and corresponding impact on operational results due to lower charge of depreciation".

Further, Note-29 regarding Significant Accounting Policies, of the audited financial statements for FY 2020-21 of the Petitioner Company states as under:

"…

4. Capital Works in Progress

…

4.5 The Capital Works completed during the year have been capitalized at the year end

…"

Accordingly, the Commission does not find any justification to depart from the practice adopted in the previous Tariff Orders of allowing depreciation on the opening balance of GFA. **The Commission directs the Petitioner to claim depreciation in line with its practice followed in the accounts as it capitalises the assets on the last day of the Financial Year or submit proper**

justification that the accounting policy has changed.

The depreciation approved by the Commission for FY 2020-21 is as shown in the Table below:

Table 4.29: Depreciation approved for FY 2020-21 (Rs. Crore)

Particulars	Tariff Order	Claimed by UPCL	Approved
Opening GFA	5549.79	5,558.81	5867.65
Grants	2328.63	2,536.63	2605.00
Depreciable opening GFA	**3221.16**	**3,022.18**	3262.65
Net addition during the year	395.50	528.01	489.35
Closing GFA	3616.65	3,550.19	3752.00
Depreciation Rate	5.20%	5.53%	5.53%
Depreciation	**167.47**	***167.21***	**180.51**

4.2.3 *Provisions for Bad and Doubtful Debts*

The Petitioner in its Petition has submitted that the Commission in the Tariff Order dated April 18, 2020 did not allow any provisioning of bad debts for earlier years.

The Petitioner submitted that the annual provision towards bad & doubtful debts is as per Generally Accepted Accounting Principle and considering the peculiarity of retail supply business, the same has also been recognized by other SERCs. The Petitioner added that the amount, if any, written off towards bad debts is only adjusted against the accumulated provisions in the books, irrespective of the actual amount of bad debts written off during any particular financial year.

The Petitioner requested the Commission to allow provision for bad and doubtful debts on actual basis after considering the geographical spread of the large consumer base across the State including a large part of the same prevailing in the difficult terrain and hilly region and the problem of realizing energy dues from retail consumers.

The Petitioner submitted that as per Regulation 31 of UERC Tariff Regulations, 2018 it is allowed to make provision of Bad and Doubtful Debts and further submitted that it has been making provisioning of the bad-debts but the Commission has not been allowing the same on account of pending Bad-debt policy due to which it has suffered a loss of Rs. 975.88 Crore.

The Petitioner further submitted that the Commission has now approved the Policy for Provisioning and Writing Off Bad & Doubtful Debts. The Petitioner also requested to approve the bad-debts of past period.

The Petitioner further submitted that under One Time Settlement Scheme it has waived off an amount of Rs. 132.15 Crore towards arrears and Surcharge and requested the Commission to consider the same. The Petitioner further submitted that it has done analysis of high loss division with 2-pronged approach – i) to audit the receivables and ii) to have proper billing of such consumers for future period. This would ensure that fictitious receivables/arrears are identified, and commercial losses are brought down by proper billing. The Petitioner further submitted that based on above findings, it is taking corrective action and is expected to write-off fictitious receivables/arrears after due process is followed/approval is taken from management. The Commission has approved Policy on provisioning and Writing Off of Bad and Doubtful Debts which would help UPCL to make regular and reasonable provisioning to reflect correct picture in financial statements. UPCL has initiated internal exercise of computation of such bad and doubtful debts which needs approval from the Commission for writing off and pass on the expenses under ARR/ Tariff for the past period. The same would be submitted in the next tariff Petition along with audited accounts of FY 2021-22.

The Petitioner in its Petition also submitted the category wise bad debts written off during FY 2020-21 as follows:

Table 4.30: Category wise Bad Debt written off as submitted by the Petitioner (Rs. Crore)

Category	Amount (Rs. Crore)
Domestic	39.38
Non-domestic	16.59
Government Public Utility	23.78
PTW	3.52
LT Industry	12.77
HT Industry	35.82
Mixed load	0.001
Railway Traction	0.30
Total	**132.15**

The Commission sought division wise Bad-Debts written off and the BoD approval for writing off the Bad-Debts. The Petitioner submitted the division wise details of the Bad Debts written off. With regard to the BoD approval, the Petitioner submitted that the Audited Accounts have been approved by the BoD and, thus, it is implied that the Bad Debt write offs have been approved and submitted that no specific approval of BoD exists.

The Commision after analysing the write off data observed that the Petitioner has written off Bad Debts for Industrial and Government category consumers and was, therefore, asked to explain the same. The Petitioner in its reply dated February 17, 2022 submitted that only the fictitious arrears and delayed payment surcharge on implementation of surcharge waiver scheme were written off during FY 2020-21. UPCL further submitted that the fictitious arrears written off during the year is due to revision of past period billing and all the arrears written off during the year pertains to the period prior to FY 2020-21. The Petitioner further submitted that as per Para 5.1 and 5.2 of the Bad Debt Policy approved by the Commission, it is allowed to write off fictitious arrears due to wrong billing.

The Commission has gone through the submissions of the Petitioner and observes that the Petitioner has failed to submit any specific approval of its BoD for writing off Bad Debts and, therefore, has not considered the same in the current proceedings. Merely mentioning that the financial statements have been approved by its BoD and hence, write offs have also been approved is devoid of merits. When a particular action requires specific approval of BoD, the same has to be taken specifically and it cannot be inferred that the approval has been accorded indirectly. Moreover, the Commission has in its past tariff orders held that any surcharge waiver will have to be borne by UPCL and it cannot be allowed to be passed on to the consumers. Thus, UPCL is required to submit the details of bad debts written off year wise giving separate details of surcharge waived off. The Commission shall consider the same once specific approvals are submitted in future tariff filings alongwith the requiste details. Moreover, the policy on provisioning and writing of bad and doubtful debts was approved by the Commission in FY 2021-22, and as such the reference of the same for writing off of bad debts in the accounts of FY 2020-21 has no relevance.

4.2.4 *Interest on Working Capital (IoWC)*

The Petitioner has submitted that it has computed interest on working capital as per UERC Tariff Regulations, 2018 as amended from time to time. The Petitioner has submitted that it has claimed normative IoWC of Rs. 96.88 Crore as per the amended Regulation 33 of the UERC Tariff Regulations, 2018.

The Petitioner also submitted that the actual interest on working capital/overdraft facility is Rs. 38.33 Crore. The Petitioner has also claimed sharing of gains on account of the same.

The computation of interest on working capital as submitted by the Petitioner is detailed in the Table below:

Table 4.31: Interest on Working Capital Claimed by the Petitioner for FY 2020-21 (Rs. Crore)

Particulars	Amount
Operation and Maintenance Expenses (one month)	51.21
Maintenance Spares @ 15% of O&M Expenses	92.18
Receivables (2 months)	1,052.54
Capital required to finance such shortfall in collection of current dues	56.84
Less: Power Purchase for 1 month	455.40
Net working capital	**797.37**
Interest on working capital	**96.88**

It is observed that the Petitioner has claimed IoWC after factoring in the First Amendment to UERC Tariff Regulations, 2018 issued on November 26, 2020. The Commission observes that the tariff for FY 2020-21 was determined vide Order dated April 18, 2020 on the basis of principles laid out under the Principal Regulations and the amendment was in the third quarter of FY 2020-21. In this regard it is observed that Hon'ble APTEL in its Judgment in Appeal No. 180 of 2013 dated May 18, 2015 has ruled as follows.

"26. The Seventh issue is true up of distribution losses.

27. According to the Appellant, the distribution loss trajectory for FY 2010- 11 and 2011-12 was unrealistic and unachievable since the State Commission fixed the loss levels without taking into consideration the actual loss level existing at the time of fixation of loss trajectory.

28. We feel that this issue cannot be raised in the present Appeal as these were decided by the State Commission in the respective tariff orders. No Appeals were filed against those orders and since attained finality. We do not find any reason to interfere with the findings of the State Commission on this issue.

"

The Commission has, therefore, approved the normative IoWC in accordance with the provisions of the Principal Regulations as Amendment Regulations were not in existence on that date. Accordingly, the IoWC works out to be NIL.

The Petitioner submitted that the amount towards overdraft facility has been primarily utilized for the purpose of payments of power purchase expenses and to fund the receivables which are long overdue from consumers. The Petitioner submitted that it had paid late payment surcharge (LPS) of Rs. 44.80 Crore to the generating companies. In another submission, it mentioned that it had earned a rebate of Rs. 11.73 Crore by making timely payments to the generators, however, the interest on overdraft paid by UPCL has exceeded the benefits derived out of the rebate earned and it has also paid LPS. Hence, availing Overdraft facility does not appear to have served the purpose for which it was taken and is not a viable proposition. Hence, it is amply clear that the payments are not being made to the generators on time leading to payment of LPS. Thus, the Petitioner's submissions that the overdraft facility has been availed to make payments to the generators is incorrect and misleading.

From the monthly commercial statements of the Petitioner, it may be deduced that poor collection efficiencies of the Petitioner is one of the main reason for availing overdrafts.

The need of overdraft arises as UPCL does not meet the collection efficiency targets. In fact in the initial months of the financial year, Collection efficiency is found to be around 50%. Hence, due to inefficiencies of the field officers, the Petitioner Company is being loaded with the burden of LPS to generating companies and interest on overdrafts which ultimately passes on to the consumers. The Commission has taken a serious note of this and **directs UPCL to submit the month wise division wise details of collection of dues by the 15th of the next month and action may be taken against the Executive Engineer of those divisions whose collection efficiency is less than the approved collection efficiency.**

However, for the current proceedings, actual interest of Rs. 38.33 Crore on overdraft facility availed, which is an avoidable working capital facility availed by the Petitioner, has been considered for sharing of IoWC in accordance with UERC MYT Regulations, 2018.

4.2.5 *Return on Equity*

The Petitioner submitted that it has computed Return on Equity (RoE) for FY 2020-21 considering the opening equity and the rate of RoE of 16.50%.

The Commission has considered the closing equity for FY 2019-20 as the opening equity for FY 2020-21. Accordingly, the Commission has approved the Return on Equity at the rate of 16.50% on the opening equity in accordance with the Regulations. The Return on Equity approved by the Commission for FY 2020-21 is as shown in the Table below:

Table 4.32: Return on Equity approved by the Commission for FY 2020-21 (Rs. Crore)

Particulars	Approved in the Tariff Order	Claimed by UPCL	Approved
Return on Equity	114.55	106.82	114.53

4.2.6 *Non-Tariff Income*

The Petitioner submitted that the Non-Tariff Income includes income from non-tariff sources such as income from investments, delayed payment surcharge, etc. The Petitioner has claimed non-tariff income as Rs. 286.81 Crore.

The Petitioner with regard to material cost variance submitted that out of the total Rs. 15.90 Crore, contribution from grants (Rs. 5.37 Crore) has been deducted from the overall claim in line with the methodology adopted by the Commission in the previous Tariff Orders. The Petitioner further submitted that it has considered the wheeling charges and cross subsidy surcharge as part of non-tariff income and has excluded the same from revenue from sale of power.

The Commission agrees with the submissions made by the Petitioner with regard to the material cost variance on the value of grants.

The Petitioner with regard to Delayed Payment Surcharge submitted that income shown in non-tariff income is on accrual basis and it deserves treatment akin to Interest on Security deposit paid on cash basis. Accordingly, the Petitioner requested the Commission to consider DPS income of Rs. 85.41 Crore on actual received basis.

The Commission has gone through the Petitioner's submissions in this regard. The Commission does not find any merit in the Petitioner's submissions as DPS once accrued, it is the sole responsibility of the Petitioner to collect the same in timely manner and, therefore, needs to be considered on accrual basis. Therefore, the Commission has considered the entire delayed payment surcharge as part of non-tariff income.

Accordingly, the non-tariff income claimed by the Petitioner and that approved by the Commission for the purpose of truing up for FY 2020-21 is as given in the Table below:

Table 4.33: Non-tariff Income approved by the Commission for FY 2020-21 (Rs. Crore)

Particulars	Approved in the Tariff Order	Claimed by UPCL	Approved
Non-tariff income	244.41	286.81	286.81

4.3 Tariff Revenue

The Petitioner submitted the revenue at existing tariff as Rs. 6172.78 Crore as against the revenue of Rs. 7052.99 Crore, approved by the Commission for FY 2020-21.

The Petitioner submitted that after making significant improvements, the actual distribution loss of 13.96% for FY 2020-21 were marginally lower than the baseline value of 14.00% approved by the Commission for FY 2020-21. The Petitioner further submitted the gain to be allowed to it, which is as shown in the Table below:

Table 4.34: Additional Revenue from Sale for FY 2020-21 (Rs. Crore)

S. No.	Particulars	Actuals
1.	Actual Sales (MU)	11,432.59
2.	Approved Distribution Loss Level (%)	14.00%
3.	Actual Energy Input at T-D Interface (MU)	13,287.59
4.	Sales at Actual Energy Input with 14.00% Loss (MU)	11,427.33
5.	Gain of Sales (MU)	5.26
6.	Revenue at Existing Tariff (Rs. Crore)	6,172.78
7.	ABR (Rs./kWh)	5.40
8.	Additional Revenue due to higher distribution losses (Rs. Crore)	2.84
9.	**Gain to be retained by the Petitioner (2/3 of 8) (Rs. Crore)**	**1.89**

The Petitioner has separately claimed sharing of the above gains to be allowed in FY 2020-21.

The Commission has considered the trued-up distribution loss for FY 2020-21 and has, accordingly, computed the loss of sales as 84.59 MU due to commercial inefficiencies of UPCL.

The Commission in the past has been considering additional revenue due to substantial variation in the ABR of Deparmental employees and other Domestic Consumers. However, from the Commercial Diary for FY 2020-21 it is observed that the ABR of Departmental employees is marginally higher than the ABR of Rs. 4.24/kWh of other Domestic consumers and, therefore, no adjustment has been carried out on account of the same.

The Petitioner further submitted that due to COVID-19, MoP, GoI vide letter no. 11.06.2020-TH-II, dated 10.06.2020 provided the details of rebate of Rs. 39.14 Crore as offered by various Central Public Sector Generation and Transmission Companies to the State of Uttarakhand and GoU was required to furnish a detailed statement along with the timeline indicating how the State Government shall be actually passing on the benefits of this rebate to the end consumers.

The Petitioner submitted that it has received rebate from Central Public Sector Generation and Transmission Companies as follows:

Table 4.35: Rebate on Power Purchase from CPSUs for FY 2020-21 (Rs. Crore)

S. No.	Particulars	Actuals
1.	THDC Limited	1.90
2.	NHPC Limited	18.32
3.	Meja Urja Nigam	0.81
4.	APCPL	0.50
5.	SJVN Ltd.	3.18
6.	PGCIL	14.43
Total		**39.14**

The Petitioner submitted that due to the lockdown imposed with effect from March 24, 2020, the Commercial and Industrial establishments had gone into almost complete shutdown except a few industries such as pharma and food industries, and the Commercial and Industrial activities were allowed from 18.05.2020. The said category of consumers had demanded waiver off fixed charges from Government and Discoms.

The Petitioner further submitted that GoU issued various notifications/letters to provide relief to the consumers in the State during COVID induced lockdown. The Petitioner submitted the summary of such notifications as under.

Table 4.36: Summary of Relief in Tariff for Consumers

Sr. No	Letter/Notification No.	Consumer Category	Relief in Tariff provided to consumers
1		**Commercial category:** Hotels, Restaurants and Dhabas etc.	Scheme had been implemented to waive off the fixed charges on the energy consumed for the period from March, 2020 to May, 2020 payable from the month of April, 2020 to June, 2020 by the Hotels, Restaurants and Dhabas.
2	429/I (02) 2020-06/01/2020 dated 21.05.2020	**Commercial category:** Other than Hotels, Restaurants and Dhabas etc. And **Industrial Category**	Scheme had been implemented to defer the fixed charges on the energy consumed for the period from March, 2020 to May, 2020 payable from the month of April, 2020 to June, 2020 by the consumers of Non–Domestic/Commercial category and Industrial Category. The recovery of these fixed charges has been done in four equal monthly installments from July, 2020 to October, 2020 without any delayed payment surcharge.
3		Private Tubewells / Agriculture Category	Scheme had been implemented to waive the 100% delayed payment surcharge of those consumers who made payment of their electricity dues by 30-06-2020.
4	286/I (2)/2021-06-01/2020 – TC-II, dated 19.02.2021	Dharmashala and Cinemaghar (Commercial)	Scheme had been implemented to waive off the fixed charges on the energy consumed for the period from March, 2020 to May, 2020 payable from the month of April, 2020 to June, 2020 by the

Table 4.36: Summary of Relief in Tariff for Consumers

Sr. No	Letter/Notification No.	Consumer Category	Relief in Tariff provided to consumers
			Dharmashala & Cinemaghar.
5	285/I (2)/2021-06-01/2020 – TC-II, dated 19.02.2021	Domestic, Commercial (up to 75 kW), Private Tube Wells and LT (industry)	Scheme had been implemented where in DPS of the consumers of Domestic, Commercial (up to 75 kW), Private Tube Wells and LT (industry) have been waived off, who paid principal amount of their electricity bills for the period 19.02.2021 to 18.05.2021.
6	1381/I (2)/2021-06-01/2020 – TC-II, dated 30.09.2021	Domestic, Commercial (up to 75 kW), Private Tube Wells and LT (industry)	A scheme for waiving of DPS has been implemented on 01.10.2021 for Domestic, Commercial (up to 75 kW), Private Tube Wells and LT Industry consumers who will pay principal amount of their electricity bills by 31.12.2021

The Petitioner further submitted that as per the directions of GoU, UPCL vide its letter no. 1464/UPCL/RM/N-55, dated 16.06.2020 provided the plan for passing on the benefit/rebate to the end consumers. Further, UPCL had filed a Petition in compliance to the directions by Government of Uttarakhand in the matter to pass on the benefit in the electricity tariff to the end consumer of the State during pandemic period on which the Commission issued the Order on 08.12.2020.

The Petitioner submitted that as against the Commission's order dated 08.12.2020, following rebate in fixed charges amounting to Rs. 35.84 Crore has been provided to the consumers.

- Rs. 7.31 Crore - RTS-2 (Commercial).
- Rs. 1.65 Crore - RTS-5 (LT Industry).
- Rs. 26.88 Crore - RTS-5 (HT Industry).

The Petitioner further requested the Commission to consider the balance impact of Rs. 3.30 Crore (Rs. 39.14 Crore less Rs. 35.84 Crore) suitably in the tariff proposal of FY 2022-23.

The Commission after going through the submissions of the Petitioner observed that the Petitioner in addition to relief in fixed charges has also waived off delayed payment surcharge for some of the consumers. The Commisison, therefore, sought the impact of such relief along with computations for each relief mentioned under Sr. No. 1 to 6 in Table 3.34 above. The Petitioner was also asked to provide the details of Fixed Charge and DPS waived separately for each relief provided.

The Petitioner in response submitted the following.

Table 4.37: Monetary Impact of Relief in Tariff for Consumers

S. No	Letter/ Notification No.	Consumer Category	Relief in Tariff provided to consumers	Impact of Relief
1	429/I (02) 2020-06/01/2020 dated 21.05.2020	**Commercial category:** Hotels, Restaurants and Dhabas etc.	Scheme had been implemented to waive off the fixed charges on the energy consumed for the period from March, 2020 to May, 2020 payable from the month of April, 2020 to June, 2020 by the Hotels, Restaurants and Dhabas.	Relief in fixed charge amounting to Rs. 2.25 Cr. has been provided to the consumers. As per GoU order no. 429/I (02) 2020-06/01/2020 dated 21.05.2020, the value of this relief shall be reimbursed by GoU to UPCL. As such there is no financial impact on UPCL on this account. The division wise details of relief provided are attached herewith.
2		**Commercial category:** Other than Hotels, Restaurants and Dhabas etc. And **Industrial Category**	Scheme had been implemented to defer the fixed charges on the energy consumed for the period from March, 2020 to May, 2020 payable from the month of April, 2020 to June, 2020 by the consumers of Non–Domestic/Commercial category and Industrial Category. The recovery of these fixed charges has been done in four equal monthly instalments from July, 2020 to October, 2020 without any delayed payment surcharge.	Relief in delayed payment surcharge amounting to Rs. 3.04 Cr. has been provided to the consumers. As per GoU order no. 429/I (02) 2020-06/01/2020 dated 21.05.2020, the value of this relief shall be reimbursed by GoU to UPCL. As such there is no financial impact on UPCL on this account. The details of computation of relief are attached herewith.
3		Private Tubewells / Agriculture Category	Scheme had been implemented to waive the 100% delayed payment surcharge of those consumers who made payment of their electricity dues by 30-06-2020.	Relief in delayed payment surcharge amounting to Rs. 0.76 Cr. has been provided to the consumers. As per GoU order no. 429/I (02) 2020-06/01/2020 dated 21.05.2020, the value of this relief shall be reimbursed by GoU to UPCL. As such there is no financial impact on UPCL on this account. The details of computation of relief are attached herewith.
4	286/I (2)/2021-06-01/2020 – TC-II, dated 19.02.2021	Dharmashala and Cinemagha (Commercial)	Scheme had been implemented to waive off the fixed charges on the energy consumed for the period from March, 2020 to May, 2020 payable from the month of April, 2020 to June, 2020 by	Relief in fixed charge amounting to Rs. 0.19 Cr. has been provided to the consumers. As per GoU order no. 286/I (2)/2021-06-01/2020 – TC-II, dated 19.02.2021, the value of this relief shall be

Table 4.37: Monetary Impact of Relief in Tariff for Consumers

S. No	Letter/ Notification No.	Consumer Category	Relief in Tariff provided to consumers	Impact of Relief
			the Dharmashala & Cinemaghar.	reimbursed by GoU to UPCL. As such there is no financial impact on UPCL on this account. The division wise details of relief provided are attached herewith.
5	285/I (2)/2021-06-01/2020 – TC-II, dated 19.02.2021	Domestic, Commercial (up to 75 kW), Private Tube Wells and LT (industry)	Scheme had been implemented where in DPS of the consumers of Domestic, Commercial (up to 75 kW), Private Tube Wells and LT (industry) have been waived off, who paid principal amount of their electricity bills for the period 19.02.2021 to 18.05.2021.	Relief in delayed payment surcharge amounting to Rs. 36.52 Cr. has been provided to the consumers. As per GoU order no. 285/I (2)/2021-06-01/2020 – TC-II, dated 19.02.2021, the value of this relief shall be adjusted from the provision for bad and doubtful debts. As such Hon'ble UERC is requested to kindly allow adjustment of such relief from the provision for bad and doubtful debts. The details of computation of relief are attached herewith.
6	1381/I (2)/2021-06-01/2020 – TC-II, dated 30.09.2021	Domestic, Commercial (up to 75 kW), Private Tube Wells and LT (industry)	A scheme for waiving of DPS has been implemented on 01.10.2021 for Domestic, Commercial (up to 75 kW), Private Tube Wells and LT Industry consumers who will pay principal amount of their electricity bills by 31.12.2021	Relief in delayed payment surcharge amounting to Rs. 15.69 Cr. has been provided to the consumers. As per GoU order no. 1381/I (2)/2021-06-01/2020 – TC-II, dated 30.09.2021, the value of this relief shall be adjusted from the provision for bad and doubtful debts. As such Hon'ble UERC is requested to kindly allow adjustment of such relief from the provision for bad and doubtful debts. The details of computation of relief are attached herewith.
7.	Further, it is also submitted before the Hon'ble UERC that GoU vide its order no. 1869/ I (2)/2021-06-01/2020 – TC-II, dated 3.01.2022 extended the scheme as approved vide above order dated 30-09-2021 till March, 2022. The results of the said scheme shall be available in the first week of April, 2022.			

The Commission has gone through the submissions of the Petitioner and observes that the total impact of the relief provided by the Petitioner amounts to Rs. 58.45 Crore as against relief received of Rs. 39.14 Crore. The Petitioner has, therefore, allowed more relief than the rebate received and as such relief were provided at the behest of the State Government, therefore, additional relief of Rs. 19.31 Crore provided needs to be recovered from the State Government and cannot be passed on to the consumers. As this excess relief forms part of the revenue for FY 2020-21, the Commission has, therefore, added the excess relief allowed to the Reveue for FY 2020-21.

As discussed, while approving interest expenses, the Commission has ruled that the rebate/ relief during Covid period of Rs. 17.49 Crore needs to be adjusted from the Revenue and, therefore, the same has been reduced while computing the gap/surplus for FY 2020-21.

Based on the above, the revenue from the sale of power, as worked out by the Commission is shown in the Table below:

Table 4.38: Revenue from Sale of Power for FY 2020-21 (Rs. Crore)

Particulars	Amount
Actual Revenue	6172.78
Less: Rebate/relief during Covid period	17.49
Add: Excess Relief Provided by Petitioner	19.31
Total Revenue	**6174.60**

The Commission for the computation of ABR, to determine the additional revenue from sale due to inefficiency of the Petitioner in FY 2020-21, has considered the revenue as Rs. 6174.60 Crore as stated above.

Further, as discussed herein above there is a loss of 84.59 MU on account of commercial inefficiencies of the Petitioner in failing to achieve distribution loss target approved by the Commission. The Commission has considered the revenue of Rs. 30.70 Crore at an average billing rate of Rs. 5.44 kWh for this additional loss of sale on account of higher distribution losses while truing up the ARR for FY 2020-21 as shown in the Table below:

Table 4.39: Additional Revenue from Sale due to inefficiency for FY 2020-21 (Rs. Crore)

S. No.	Particulars	Claimed by UPCL	Approved
1.	Actual/ Re-casted Sales (MU)	NIL	11342.74
2.	Actual Distribution Loss Level (%)		14.64%
3.	Actual Energy Input at T-D Interface (MU)		13287.59
4.	Sales at Approved Loss of 14.00% (MU)		11427.33
5.	Loss of Sales due to Inefficiency (MU)		84.59
7.	ABR (Rs./kWh)		5.44
8.	Additional Revenue due to higher distribution losses (Rs. Crore)		46.05
9.	Losses to borne by Petitioner (2/3rd of 8) (Rs. Crore)		**30.70**

Accordingly, the Commission has considered tariff revenue of Rs. 6205.30 Crore including Rs. 30.70 Crore as deemed revenue on account of excess loss for FY 2020-21 as against total revenue of Rs. 6172.78 Crore claimed by the Petitioner.

4.4 Sharing of Gains and Losses

The sharing of gains and losses claimed by the Petitioner for FY 2020-21 is as shown in the Table below:

Table 4.40: Sharing of Gains and Losses for FY 2020-21 claimed by the Petitioner (Rs. Crore)

Particulars	Amount (Gain/(Loss))	Consumer Share	UPCL Share
Gain		1/3rd	2/3rd
IoWC	58.55	19.52	39.03
Distribution Loss	2.84	0.95	1.89
Rebate Earned on Discharge of Power Purchase Liability	11.73	3.91	7.82
Late Payment Surcharge due to Delayed Payment of Power Purchased	(44.80)	(14.93)	(29.87)
Total		**6.60**	

Regulation 12 of the UERC Tariff Regulations, 2018 specifies as under:

*"12. **Annual Performance Review***

…

(5) The "uncontrollable factors" shall include such of the factors which are beyond the control of, the applicant, as determined by the Commission. Some examples of uncontrollable factors are as follows:

…

c) Economy wide influences such as unforeseen changes in inflation rate, market interest rates, taxes and statutory levies;

…

(6) Some illustrative variations or expected variations in the performance of the applicant which may be attributed by the Commission to controllable factors shall include, but shall not be limited to, the following:

…

f) Variations in working capital requirements;

…

j) Variation in operation & maintenance expenses

…

(10) Upon completion of the Annual Performance Review, the Commission shall pass on an order recording-

a) The approved aggregate gain or loss to the Applicant on account of uncontrollable factors and the mechanism by which the Applicant shall be allowed such gains or losses in accordance with Regulation 13;

b) The approved aggregate gain or loss to the Applicant on account of controllable factors and sharing of such gains or such losses that may be shared in accordance with Regulation 14;

c) The approved modifications to the forecast of the Applicant for the ensuing year, if any;

The surplus/deficit determined by the Commission in accordance with these Regulations on account of truing up of the ARR of the Applicant shall be carried forward to the ensuing financial year."

Regulation 13 of the UERC Tariff Regulations, 2018 specifies as under:

*"**13. Sharing of Gains and Losses on account of Uncontrollable factors***

(1) The approved aggregate gain or loss to the Applicant on account of uncontrollable factors shall be allowed as an adjustment in the tariff/charges of the Applicant over such period as may be specified in the Order of the Commission;

…"

Regulation 14 of the UERC Tariff Regulations, 2018 specifies as under:

*"**14. Sharing of Gains and Losses on account of Controllable factors***

(1) The approved aggregate gain and loss to the Applicant on account of controllable factors shall be dealt with in the following manner:

a) 1/3rd of such gain shall be passed on as a rebate or allowed to be recovered in tariff over such period as may be specified in the Order of the Commission;

b) The balance amount of gain may be utilized or absorbed by the Applicant."

Hence, in accordance with UERC Tariff Regulations, 2018, the O&M expenses, IoWC and Distribution losses are controllable factors and any gain or loss on account of the controllable factors is to be dealt in accordance with the provisions of Regulation 14 of the above-mentioned Regulations.

Further, as held while truing up of interest on working capital, the truing up of FY 2020-21 is being carried out on the basis of Principal Regulations on which the Tariff for the said year was determined due to which no sharing of gain or loss on account of Rebate recevied on Power Purchase Payment as well as Late Payment Surcharge paid for delayed payment of power purchase obligations have been carried out.

The sharing of gains on account of controllable factors approved by the Commission for FY 2020-21 is as shown in the Table given below:

Table 4.41: Sharing of Gains on Account of Controllable Factors approved by the Commission for FY 2020-21 (Rs. Crore)

Particulars	Actual for truing up	Normative as Trued up	Aggregate gain/(loss)	Consumer's Share	Petitioner's Share of Gain/(Loss)
	A	B	C=B-A	Gain: D=1/3 x C (Loss) D=1/3 x C	E=C-D
O&M expenses	596.85	582.57	(14.28)	(4.76)	(9.52)
Distribution Loss	14.64%	14.00%	(46.05)	(15.35)	(30.70)
IoWC	38.33	0.00	(38.33)	(12.78)	(25.55)
Total			**(98.66)**	**(32.89)**	**(65.77)**

4.5 ARR and Revenue for FY 2020-21

The Commission in its Tariff Order dated April 18, 2020 had approved the Net Revenue Requirement for FY 2020-21 as Rs. 6957.12 Crore. The Petitioner has now claimed an ARR of Rs. 6315.25 Crore for FY 2020-21. However, based on the various elements of the ARR as discussed above and approved by the Commission, the summary of final Truing up for FY 2020-21 is given in the Table below:

Table 4.42: Summary of True up for FY 2020-21 approved by the Commission (Rs. Crore)

Particulars	Tariff Order	Claimed by UPCL	Approved
Power Purchase Cost incl. UJVN Arrears	5281.59	4395.04	4395.04
Water Tax	260.06	173.87	173.87
PGCIL	429.89	607.03	607.03
PTCUL and SLDC	286.49	288.82	288.82
Interest on Loan and guarantee fee	137.46	188.63	169.23
Depreciation	167.47	167.21	180.51
O&M expenses after sharing	554.19	614.52	587.33
Interest on Working Capital	0.00	96.88	0.00
Impact of Interest on Working Capital Loss	0.00	(19.52)	12.78

Table 4.42: Summary of True up for FY 2020-21 approved by the Commission (Rs. Crore)

Particulars	Tariff Order	Claimed by UPCL	Approved
Return on Equity	114.55	106.82	114.53
Provision for Bad and doubtful debts	-	-	-
Sharing on accunt of Rebate and LPS	-	11.02	
Aggregate Revenue Requirement	**7231.69**	**6630.32**	**6529.14**
Less: Non-Tariff Income	244.41	286.81	286.81
Gap/(Surplus) of previous year	**-30.16**	**-30.16**	**-30.16**
Net ARR	**6957.12**	**6313.35**	**6212.17**
Revenue			
Revenue at Existing Tariff	**7052.99**	**6172.78**	**6174.60**
Revenue from Addl Sales. (after sharing)		(1.89)	30.70
Total Revenue	**7052.99**	**6170.89**	**6205.30**
Adjusted Revenue (Surplus)/Gap	**(95.87)**	**142.47**	**6.87**

The Petitioner in its Petition had requested the Commission to approve the gap of Rs. 142.47 Crore. However, the Commission has approved a gap of Rs. 6.87 Crore for FY 2020-21. The Commission has allowed the same alongwith the carrying cost in truing up of FY 2020-21.

Table 4.43: Total gap including carrying cost (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Opening Gap/(Surplus)	0.00	7.29	8.18
Addition	6.87	0.00	-8.18
Closing	6.87	7.29	0.00
Interest Rate	12.20%	12.20%	10.50%
Carrying/(Holding) Cost	0.42	0.89	0.43
Closing Balance	7.29	8.18	8.61

The Commission has, accordingly, considered the total gap of Rs. 8.61 Crore including carrying cost, in the ARR of FY 2022-23.

5. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2021-22 and ARR for Fourth Control Period of FY 2022-23 to FY 2024-25

5.1 Background

This Chapter deals with the determination of the projected ARR of the Petitioner for the fourth Control Period from FY 2022-23 to FY 2024-25. To determine the ARR of the Petitioner for the ensuing year FY 2022-23, the Commission has first projected the monthly power purchase requirement of the Petitioner by estimating the category wise sales based on the past trends and considering the normative distribution losses. After determining the monthly power purchase requirement, the Commission has determined the overall power purchase cost. The Commission has discussed the Sales Projections, Distribution loss trajectory, Power Purchase Plan and Capital Expenditure in detail in Chapter 3 of this Order while approving the Business Plan components. The Commission has, thereafter, estimated the other elements of ARR such as Depreciation, O&M expenses, Interest and Finance Charges, Working Capital requirement and Return on Equity to project the ARR of the Petitioner for the fourth Control Period from FY 2022-23 to FY 2024-25. Based on the analysis and scrutiny of Petitioner's projections in the Petition and considering the subsequent submissions including actual data for the preceding years, the Commission has determined the total ARR for first year of the fourth Control Period, i.e. FY 2022-23 and ARR excluding Power Purchase Cost for the remaining two years of the Control Period, i.e. FY 2023-24 and FY 2024-25 as detailed in the subsequent Paras of this Chapter.

5.2 Sales

The Commission has already discussed in detail the approach adopted by it for approving the consumer category wise sales for each year of the fourth Control Period from FY 2022-23 to FY 2024-25 in Chapter 3 of the Order. The consumer category wise sale approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 5.1: Category Wise Sales approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (MU)

Consumer Category	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
RTS-1: Domestic	3892.46	3929.36	4134.94	4197.96	4392.52	4484.92
RTS-2: Non-Domestic	1404.47	1398.46	1481.69	1463.35	1563.17	1531.26
RTS-3: Govt. Public Utilities	856.46	848.03	915.80	894.52	979.42	943.56
RTS-4: Private Tube-wells Pumping sets	243.44	254.25	245.87	266.96	248.33	280.31
RTS-5: LT & HT Industry						
Total LT	334.38	340.64	339.41	350.86	344.51	361.39
Total HT	6033.12	6058.23	6304.61	6330.85	6588.32	6615.74
Total	**6367.50**	**6398.87**	**6644.02**	**6681.71**	**6932.82**	**6977.13**
RTS-6: Mixed Load	183.12	183.76	184.95	185.59	186.80	187.45
RTS-7: Railway Traction	29.63	29.79	31.11	31.28	32.67	32.84
RTS-8: EV Charging Stations	17.52	17.52	35.04	35.04	43.80	43.80
Total	**12994.59**	**13060.03**	**13673.42**	**13756.41**	**14379.52**	**14481.26**

The Commission would like to once again highlight that the Petitioner has projected the restricted sales for the fourth Control Period from FY 2022-23 to FY 2024-25. The Commission as discussed in Chapter 3 of the Order has projected unrestricted sales for the fourth Control Period.

5.3 Distribution Loss Trajectory

The Commission has approved the Distribution Loss Trajectory for the fourth Control Period from FY 2022-23 to FY 2024-25 as discussed in Chapter 3 of the Order. The distribution loss trajectory approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table given below:

Table 5.2: Distribution Loss Trajectory approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
Distribution Losses	13.50%	13.50%	13.25%	13.25%	13.00%	13.00%

In line with the approach adopted by the Commission in its previous Tariff Orders, the Commission has considered the entire distribution loss reduction target for each year of the Control Period as reduction in commercial losses of the Petitioner and has, therefore, considered the impact of distribution loss reduction in terms of increase in sales due to efficiency improvement.

Accordingly, the estimated energy requirement at the distribution periphery, State periphery and approved loss level for the fourth Control Period from FY 2022-23 to FY 2024-25 are given in the Table below:

Table 5.3: Energy Input requirement approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Sales (MU)	13060.03	13756.41	14481.26
Loss level for Energy Input (%)	13.75%	13.50%	13.25%
Energy Input required at T-D interface (MU)	15142.06	15903.37	16693.09
Commercial Loss reduction (%)	0.25%	0.25%	0.25%
Commercial Loss reduction (Additional sales due to efficiency improvement) (MU)	37.86	39.76	41.73
Total sales with efficiency improvement (MU)	13097.88	13796.17	14522.99
Overall Distribution Loss (%)	13.50%	13.25%	13.00%
PTCUL Loss (%)	1.40%	1.40%	1.40%
Energy Input at State periphery (MU)	**15357.06**	**16129.17**	**16930.12**

5.4 Aggregate Revenue Requirement

Regulation 69 of the UERC Tariff Regulations, 2021 specifies as follows:

"69. Aggregate Revenue Requirement for each Financial Year of the Control Period

(1) The total annual expenses and return on equity of the Distribution Licensee for each financial year of the Control Period shall be worked out on the basis of expenses and return allowed in terms of these Regulations.

(2) The retail supply tariff of a Distribution Licensee for each financial year of the Control Period shall provide for recovery of the Aggregate Revenue Requirement of the Distribution Licensee for each financial year of the Control Period, as reduced by the amount of non-tariff income, income from wheeling in respect of open access customers, income from Other Business and receipts on account of cross-subsidy surcharge and additional surcharge for the relevant financial year, as approved by the Commission, and subsidy from the State Government for that financial year, if any, and shall comprise of the following:

(a) Cost of power purchase;

(b) Transmission charges;

(c) System Operation Charges, i.e. Fee and Charges paid to NLDC/RLDC/SLDC

(d) Interest and Finance charges on Loan Capital and on consumer security deposit;

(e) Depreciation, including and amortisation of intangible assets;

(f) Lease Charges

(g) Operation and Maintenance expenses;

(h) Interest on working capital; and

(i) Return on equity capital;

(j) Income-tax;

(k) Provision for Bad and doubtful debts

(3) Net Revenue Requirement from sale of electricity = Aggregate Revenue Requirement, as above, minus:

(a) Non-tariff income;

(b) Income from wheeling charges recovered from open access customers;

(c) Income from Other Business, to the extent specified in these Regulations;

(d) Receipts from cross-subsidy surcharge from open access consumers; and

(e) Receipts from additional surcharge on charges of wheeling from open access consumers.

(f) Any revenue subsidy or grant received from the State Government other than the subsidy under Section 65 of the Electricity Act, 2003."

The Commission in this Order has determined the Net Revenue Requirement for the first year of the Control Period, i.e. FY 2022-23 and Net Revenue Requirement excluding Power Purchase Cost for the remaining two years of the Control Period, i.e. FY 2023-24 and FY 2024-25 as detailed in the subsequent Paras of this Chapter.

5.5 Power Purchase Cost

The Power requirement of UPCL is met from various sources which include the generating stations of:

- NTPC Ltd.
- NHPC Ltd.

- NPCIL.
- SJVNL.
- THDC Ltd.
- State generating stations of UJVNL.
- UREDA.
- Gas Generating Stations in the State.
- Co-generation stations.
- Independent Power Producers (IPPs).
- Other Renewable Sources.
- Short-term power arrangements: Banking, open market purchase etc.

The Commission has approved the power procurement plan from various sources for each year of the fourth Control Period from FY 2022-23 to FY 2024-25 in Chapter 3 of the Order. Further, as discussed in Chapter 3, the Commission is only projecting the power purchase cost for the first year of the Control Period, i.e. FY 2022-23 and for the reasons mentioned in Chapter 3, the Commission finds no relevance in approving the power purchase cost for remaining two years of the fourth Control Period, i.e. FY 2023-24 and FY 2024-25.

5.5.1 *Cost of Power Purchase*

The Petitioner submitted that the cost of power purchase has been projected based on the following assumptions.

Table 5.4: Approach of the Petitioner in estimating the cost of power purchase

<table>
<tr><th>Name of the Station</th><th>Fixed Cost</th><th>Variable Cost</th></tr>
<tr><td>NHPC</td><td rowspan="12">Actual fixed cost including arrears of 6 months is prorated for FY 2021-22.
Further, as the overall increase in the average power purchase cost for last 3 financial year (FY 2017-18 to FY 2019-20) is ~5%. Hence a conservative escalation factor of 3% has been considered by the Petitioner.
3% escalation is considered on FY 2021-22 to arrive at the Fixed Cost of FY 2022-23 and subsequently, escalation of 3% is</td><td rowspan="12">Actual per unit variable cost is considered to determine the total variable charge paid for FY 2021-22 on the basis of Ex- bus energy available from the station.
Actual per unit variable charge of FY 2021-22 is considered with 3% escalation to arrive at the total variable cost for FY 2022-23. Subsequently, escalation of 3% is considered on the previous year to determine the total variable cost for the</td></tr>
<tr><td>SJVNL</td></tr>
<tr><td>THDC</td></tr>
<tr><td>NTPC</td></tr>
<tr><td>NPCIL</td></tr>
<tr><td>UJVNL</td></tr>
<tr><td>UREDA SHPs</td></tr>
<tr><td>UREDA Solar</td></tr>
<tr><td>UREDA Biomass</td></tr>
<tr><td>IPP Hydro</td></tr>
<tr><td>Gas</td></tr>
<tr><td>Solar</td></tr>
</table>

Table 5.4: Approach of the Petitioner in estimating the cost of power purchase

Name of the Station	Fixed Cost	Variable Cost
Solar Rooftop Other large private Co- generation Station	considered on the previous year to arrive at the fixed cost of the remaining 2 years of the 4th Control Period.	balance 2 years of the 4th Control Period.

The Petitioner submitted that the cost of free power has been calculated in line with the methodology specified by the Commission. The Petitioner has projected a tariff of Rs. Rs. 9.50/kWh at State periphery for Vyasi HEP.

The Petitioner has proposed forward banking of available surplus power during the summer months for each year of the fourth Control Period which would be returned in the winter months in the same year.

The Petitioner submitted that the cost of power purchase from short term sources has been considered @ Rs. 3.56/kWh, Rs. 3.67/kWh and Rs. 3.78/kWh for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

The Petitioner has projected the average power purchase cost of Rs. 3.69/kWh, Rs. 3.79/kWh and Rs. 3.90/kWh for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

The Commission has estimated the cost of power purchase from various sources for FY 2022-23 as detailed below:

Table 5.5: Approach of the Commission in estimating the Cost of Power Purchase for FY 2022-23

Source	Approach of the Commission in estimating the cost of power purchase
UJVN Ltd.	The Commission has considered the approved Tariff of UJVN Ltd. (9 LHPs) for FY 2022-23. As per the GoU Notification No. 601/1(2)/04(1)-1/2007 dated May 31, 2017, GoU imposed a cess of Rs. 0.30/kWh and royalty of Rs. 0.10/kWh on saleable energy generated from hydro generating stations which are under commercial operation for 10 or more years with cost of generation below Rs. 2/kWh with effect from the date of notification. Hence, additional impact on account of the same has been considered. For SHPs, the Commission has considered the applicable Tariff for such generating stations as specified in the Renewable Energy Regulations or Orders of the Commission. Further, the Commission has considered the Water Tax equivalent to actual Water Tax for FY 2020-21.
NHPC Ltd., THDC Ltd.	The tariff for these stations has been considered equal to approved Annual Fixed Charges for FY 2018-19 as Tariff Orders for FY 2019-20 to FY 2023-24 are yet to be issued and the AFC approved in previous years by CERC did not vary significantly.
SJVN Ltd.	CERC has issued the tariff for the two stations for FY 2019-20 to FY 2023-24 and, therefore, the tariff for these stations has been considered as approved by CERC for FY 2022-23.

Table 5.5: Approach of the Commission in estimating the Cost of Power Purchase for FY 2022-23

Source	Approach of the Commission in estimating the cost of power purchase
NTPC Ltd.	The Annual Fixed Charges for these stations except for Unchahar I&II & Dadri CCPP have been considered equal to approved Annual Fixed Charges for FY 2018-19 as Tariff Orders for FY 2019-20 to FY 2023-24 are yet to be issued and the AFC approved in previous years by CERC did not vary significantly. For Unchahar I&II & Dadri CCPP, as the tariff order for FY 2019-20 to FY 2023-24 have been issued by CERC, Fixed Charges as approved for FY 2022-23 has been considered. For estimating the Energy Charges for FY 2022-23, the weighted average rate of actual Energy Charges for the months of October 2021 to December 2021 has been considered.
NPCIL	The tariff for NPCIL stations has been considered based on the actual billing during FY 2020-21 without any escalation to determine the costs for FY 2022-23.
Renewable energy sources	The tariff as projected by UPCL has been considered for these stations.
Sasan UMPP	The applicable tariff for FY 2022-23 as per the PPA has been considered.
GIPL I&II	For GIPL -I (107 MW) annual fixed charges for these stations have been considered as approved by the Commission for FY 2022-23. For estimating the Energy Charges for FY 2022-23, as the fuel is yet to be tied up, the Commission has considered Rs. 4.80/kWh as the Energy charge. For GIPL-II (35.67 MW) the overall tariff has been considered as Rs. 6.30/kWh considering Energy Charge as Rs. 4.80/kWh and tentative fixed charge as Rs. 1.50/kWh.
SEPL I&II	For SEPL-I (214 MW) annual fixed charges for these stations have been considered as approved by the Commission for FY 2022-23. For estimating the Energy Charges for FY 2022-23, as the fuel is yet to be tied up, the Commission has considered Rs. 4.80/kWh as the Energy charge. For SEPL-II (71.33 MW) the overall tariff has been considered as Rs. 6.30/kWh considering Energy Charge as Rs. 4.80/kWh and tentative fixed charge as Rs. 1.50/kWh.
Greenko Budhil Hydro	The annual fixed charges for this station has been considered as approved by the Commission for FY 2022-23.
Meja and Tanda-II	The per unit tariff for these stations have been considered as Rs. 4.88/kWh as projected by UPCL.
Additional purchase for fulfilling RPO	The tariff for the additional purchase for fulfilling the solar RPO has been considered as Rs. 4.00/kWh at State periphery and the Petitioner should seek to buy actual power in deficit months to meet the RPO.
Upcoming Stations	For upcoming renewable generating stations within the State, the applicable Tariff as projected by UPCL has been considered. For Vyasi, the tariff of Rs 7.60/kWh, i.e. 80% of the tariff projected by UPCL has been considered for FY 2022-23 at this stage.
Deficit purchase	The tariff for deficit purchase has been considered as Rs. 3.56/kWh at State periphery as projected by the Petitioner.
Cost of free power	The cost of free power has been computed in line with the methodology adopted by the Commission in its previous Tariff Orders as shown below:

Table 5.5: Approach of the Commission in estimating the Cost of Power Purchase for FY 2022-23

Source	Approach of the Commission in estimating the cost of power purchase
	(see table below)

Particulars	Quantum	Total Cost	Average Cost
	MU	Rs. Crore	Rs. /kWh
UJVN Ltd. (9 LHPs)	2788.49	419.67	1.51
Maneri Bhali II	1335.38	214.29	1.60
NHPC	685.35	241.45	3.52
THDC	192.14	104.75	5.45
SJVNL	302.45	111.93	3.70
Greenko	225.68	83.35	3.69
Koldam	211.46	99.47	4.70
Kishanganga	18.54	7.61	4.11
Average	**5759.49**	**1282.52**	**2.23**

The summary of estimated power purchase cost for FY 2022-23 is as shown in the Table given below:

Table 5.6: Summary of Power Purchase Cost for FY 2022-23

Station	Claimed by UPCL			Approved		
	PP at State periphery	Total Cost	Average Rate	PP at State periphery	Total Cost	Average Rate
	MU	Rs. Crore	Rs. /kWh	MU	Rs. Crore	Rs. /kWh
UJVN Ltd.						
UJVN Ltd. (9 LHPs)	2859.36	432.95	1.51	2788.49	502.79	1.80
Maneri Bhali II	1308.11	247.95	1.90	1335.38	267.71	2.00
Small Hydro	179.64	31.74	1.77	179.19	29.97	1.67
Total UJVN Ltd.	**4347.11**	**712.65**	**1.64**	**4303.06**	**800.47**	**1.86**
NHPC						
Salal	39.20	6.28	1.60	42.86	6.27	1.46
Tanakpur	11.63	4.73	4.06	19.28	7.50	3.89
Chamera I	82.70	21.99	2.66	77.06	16.30	2.11
Chamera II	27.01	6.10	2.26	21.56	5.50	2.55
Chamera III	57.34	28.33	4.94	56.14	24.76	4.41
Uri	94.49	18.84	1.99	105.49	18.85	1.79
Dhauliganga	61.00	20.09	3.29	67.62	16.58	2.45
Dulhasti	121.65	79.60	6.54	122.96	61.35	4.99
Sewa II	0.00	-0.14		33.88	17.30	5.11
Uri II	77.11	41.02	5.32	84.65	34.59	4.09
Parbati III	36.30	13.83	3.81	35.33	24.86	7.04
Kishanganga	18.81	9.14	4.86	18.54	7.61	4.11
Free Power-Tanakpur	45.91	12.15	2.65	59.47	13.24	2.23
Free Power-Dhauliganga	135.44	35.84	2.65	139.70	31.11	2.23
Total NHPC	**808.61**	**297.79**	**3.68**	**884.52**	**285.80**	**3.23**
THDC						
Tehri HEP	110.32	42.80	3.88	113.77	62.09	5.46
Free Power-Tehri HEP	354.52	93.80	2.65	354.86	79.02	2.23

Table 5.6: Summary of Power Purchase Cost for FY 2022-23

Station	Claimed by UPCL			Approved		
	PP at State periphery	Total Cost	Average Rate	PP at State periphery	Total Cost	Average Rate
	MU	Rs. Crore	Rs. /kWh	MU	Rs. Crore	Rs. /kWh
Koteshwar HEP	77.30	35.91	4.65	78.37	42.65	5.44
Free Power-Koteshwar HEP	139.11	36.81	2.65	137.95	30.72	2.23
Total THDC	**681.25**	**209.32**	**3.07**	**684.95**	**214.48**	**3.13**
NTPC						
Singrauli STPS	601.83	139.82	2.32	655.99	152.73	2.33
Rihand STPS						
Rihand I	229.60	58.76	2.56	275.50	68.22	2.48
Rihand II	208.84	43.58	2.09	245.79	57.19	2.33
Rihand III	249.96	77.70	3.11	283.56	86.64	3.06
Unchahar TPS						
Unchahar I	186.73	91.19	4.88	171.65	85.52	4.98
Unchahar II	92.43	45.46	4.92	74.38	38.51	5.18
Unchahar III	68.17	35.80	5.25	62.91	33.65	5.35
Anta CCPP	5.91	12.45	21.07	13.46	18.82	13.98
Auraiya CCPP	8.93	18.98	21.25	26.73	30.59	11.44
Dadri CCPP	56.04	61.64	11.00	75.46	53.84	7.14
Dadri (NCTPP)	11.09	5.69	5.13	6.08	4.07	6.69
Jhajjar	35.70	26.27	0.00	37.18	29.12	7.83
Kahalgaon TPS	143.77	57.36	3.99	256.09	92.34	3.61
Koldam	203.11	115.34	5.68	211.46	99.47	4.70
Unchahar IV	153.22	83.77	5.47	148.34	81.97	5.53
Total NTPC	**2255.33**	**873.81**	**3.87**	**2544.59**	**932.67**	**3.67**
NPCIL						
Narora APP	166.44	52.45	3.15	166.37	52.54	3.16
Rajasthan APP	181.90	74.53	4.10	158.35	63.72	4.02
Total NPCIL	**348.34**	**126.98**	**3.65**	**324.73**	**116.26**	**3.58**
SJVNL						
Nathpa Jhakri HEP	76.09	17.46	2.29	78.73	19.35	2.46
Rampur HPS	213.35	114.09	5.35	223.71	92.58	4.14
Total SJVNL	**289.44**	**131.55**	**4.55**	**302.45**	**111.93**	**3.70**
Renewables	**1,375.99**	**671.42**	**4.88**	**1375.99**	**671.42**	**4.88**
Free Power-Vishnu Prayag	205.35	54.33	2.65	210.46	46.87	2.23
Sasan UMPP	690.05	96.47	1.40	757.26	106.02	1.40
GIPL -I	778.93	488.66	6.27	712.07	440.63	6.19
GIPL-II	0.00	0.00	0.00	129.47	81.56	6.30
SEPL-I	1557.86	1033.39	6.63	1424.14	945.55	6.64
SEPL-II	0.00	0.00	0.00	258.93	163.13	6.30
Meja Power Plant	214.52	104.63	4.88	288.10	140.53	4.88
Tanda-II	150.86	73.62	4.88	157.15	76.68	4.88
Greenko Budhil Hydro	247.33	90.91	3.68	225.68	83.35	3.69
GVK Srinagar	156.59	41.43	2.65	134.16	29.87	2.23
Vyasi	396.09	376.29	9.50	396.09	301.03	7.60
L&T Free Power	54.66	14.46	2.65	40.84	9.09	2.23

Table 5.6: Summary of Power Purchase Cost for FY 2022-23

Station	Claimed by UPCL			Approved		
	PP at State periphery	Total Cost	Average Rate	PP at State periphery	Total Cost	Average Rate
	MU	Rs. Crore	Rs. /kWh	MU	Rs. Crore	Rs. /kWh
Total Firm Sources	**14558.31**	**5397.73**	**3.71**	**15154.63**	**5557.35**	**3.67**
Short Term - Tied Up						
Deficit Purchase	627.65	223.34	3.56	138.32	49.22	3.56
Cost for meeting RPO	0.00	0.00	0.00	18.14	7.25	
Banking including additional banked energy	41.53	0.00	0.00	45.97	79.03	
Total	**15227.48**	**5621.07**	**3.69**	**15357.06**	**5692.86**	**3.71**

The Commission, further, directs the Petitioner to seek prior approval of the Commission, in case the variation in power purchase quantum or total power purchase cost in any quarter exceeds by more than 5% of the approved power purchase quantum and cost for the respective quarter worked out on pro-rata basis from the total approved quantum and cost for FY 2022-23 as indicated in the Table below, failing which, the Commission may disallow power purchases so made while Truing up the ARR for FY 2022-23.

Table 5.7: Quarterly Power Purchase approved by the Commission for FY 2022-23

Quarter	Sales (MU)	Power Purchase Quantum (MU)	Power Purchase Cost (Rs. Crore)
April – June	3270.68	3782.48	1402.16
July – September	3444.75	4051.88	1502.03
October – December	3221.80	3844.27	1425.07
January – March	3160.65	3678.43	1363.59
Total	**13097.88**	**15357.06**	**5692.86**

Moreover, it has been observed that the Petitioner has been continuously resorting to short term power purchase. In this regard, third proviso of Regulation 73(1) of UERC Tariff Regulations, 2018 is reproduced hereunder:

"Provided that the power procurement plan submitted by the Distribution Licensee may include long-term, medium-term and short-term power procurement sources of power, in accordance with these Regulations. ***However, the distribution licensee should as far as possible, not plan for short-term purchases except for conditions specified in Regulations 75 and should endeavour to meet its requirement from long term and medium term power procurement and make a plan accordingly.****"*

(Emphasis added)

Regulation 75 specifies the circumstances under which short term power procurement may be made by the distribution licensee without seeking prior approval of the Commission. However, Regulation 75(5) specifies as under:

> *"(5) Within fifteen (15) days from the date of entering into an agreement or arrangement for short-term power procurement for which prior approval is not required, the Distribution Licensee shall provide the Commission, full details of such agreement or arrangement, including quantum, tariff calculations, duration, supplier details, method for supplier selection and such other details as the Commission may require with regard to such agreement/arrangement to assess that the conditions specified in this Regulation have been complied with:"*

While projecting the power purchase requirement of the Petitioner for each year of the fourth Control Period, it has been observed that the Petitioner is having deficits in some of the month particularly during winter months. **Accordingly, the Petitioner is directed to prepare its power purchase plan for the next three years and initiate the bidding process to meet the deficit, if any. The Petitioner is directed to submit an action plan in this regard within 15 days of the date of Order. The Petitioner is also directed to ensure compliance of the Regulations issued by the Commission from time to time, failing which any consequent liability would be to the account of the Petitioner.**

The base Energy Charges of thermal stations (base fuel cost) for the purpose of computation of FCA is given in the Table below:

Table 5.8: Energy Charges of thermal generating stations for FY 2022-23

Generating Station	Energy Charges (Rs. /kWh)
Singrauli STPS	1.580
Rihand I	1.550
Rihand II	1.550
Rihand III	1.530
Unchahar I	3.440
Unchahar II	3.490
Unchahar III	3.420
Unchahar IV	3.030
Anta CCPP	4.800
Auraiya CCPP	4.800
Dadri CCPP	4.800
Dadri (NCTPP)	3.490

Table 5.8: Energy Charges of thermal generating stations for FY 2022-23

Generating Station	Energy Charges (Rs. /kWh)
Jhajjar	3.640
Kahalgaon TPS	2.660
GIPL-I – 107 MW	4.800
GIPL – II – 35.67 MW	4.800
SEPL-I – 214 MW	4.800
SEPL-II- 71.33 MW	4.800

5.6 Transmission Charges

5.6.1 *Inter-State Transmission Charges Payable to PGCIL*

The Petitioner submitted that it has considered actual Inter-State transmission charges (without arrears) for the first six months of FY 2021-22 to compute the average per unit rate of PGCIL transmission charges by dividing the total amount paid to PGCIL by the total units wheeled through inter-state network. The computed rate is escalated by 3% for each year of the fourth Control Period from FY 2022-23 to FY 2024-25 to arrive at the Inter-State transmission charges. The total PGCIL charges have been computed considering the escalated per unit transmission charge and projected total units required to be wheeled through Inter-State transmission network in each year of the fourth Control Period. The Petitioner has proposed the Inter-State transmission charges of Rs. 641.63 Crore, Rs. 660.88 Crore, and Rs. 680.71 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

The Commission has computed the per unit transmission charges for FY 2020-21 on the basis of actual Inter-State transmission charges paid (including other costs) for wheeling of inter-state power, the rate so arrived has been considered for projecting inter-state transmission charges for FY 2022-23 based on the energy to be received from outside the State. The Commission in accordance with the above approach has approved Inter-State transmission charges as Rs. 558.33 Crore which shall be subject to true up based on actual expenses incurred.

As the Commission has not approved the power purchase cost for FY 2023-24 and FY 2024-25, the Commission in this Order has not considered the inter-State Transmission Charges for FY 2023-24 and FY 2024-25. The Commission will carry out the truing up of transmission charges based on actual transmission charges paid to PGCIL during the respective financial year.

5.6.2 *Intra-State Transmission & SLDC Charges*

The Petitioner submitted that for intra-state transmission & SLDC charges for FY 2022-23, the actual 6 months charges is pro-rated to complete FY 2021-22 and the annual transmission charges of FY 2021-22 is considered along with the escalation of 3%. Subsequently, 3% escalation is considered on previous year to arrive at the intra-state transmission and SLDC charges.

The Commission has approved the Annual Transmission Charges for PTCUL of Rs. 320.11 Crore (including SLDC Charges of Rs. 15.82 Crore) for FY 2022-23 vide its Order dated March 31, 2022. Hence, the Commission has considered the same in the approval of ARR for FY 2022-23 for the Petitioner.

5.6.3 *Transmission Charges*

The Transmission Charges claimed by the Petitioner and approved by the Commission for FY 2022-23 is as shown in the Table given below:

Table 5.9: Transmission Charges for FY 2022-23 (Rs. Crore)

Particulars	Claimed by UPCL	Approved
Inter-State Transmission & SLDC Charges	641.63	558.33
Intra-State Transmission & SLDC Charges	300.86	320.11
Total	**942.49**	**878.44**

5.7 Water tax

The Commission observed that the Petitioner in its Petition did not project water tax for FY 2022-23. The Commission during TVS sought justification for the same. The Petitioner during the TVS clarified that the water taxes have been included in the power purchase cost.

The Commission has approved the water tax of Rs. 173.86 Crore for FY 2022-23 equivalent to water tax booked in the accounts for FY 2020-21 which shall be subject to true up based on actuals.

5.8 GFA and Additional Capitalisation

5.8.1 *GFA*

The Commission vide its Order dated April 26, 2021 on approval of ARR for FY 2021-22 had approved the capitalisation of Rs. 601.32 Crore for FY 2021-22. As against the same, the Petitioner has proposed the capitalisation of Rs. 1485.20 Crore for FY 2021-22.

The Commission has considered the closing GFA approved for FY 2020-21 as the opening GFA for FY 2021-22. The Commission, in Chapter 3 of the Order, on approval of capitalisation plan for the fourth Control Period from FY 2022-23 to FY 2024-25 has considered the capitalisation of Rs. 601.32 Crore in FY 2021-22.

Based on the above, the GFA base approved by the Commission for FY 2021-22 is as shown in the Table below:

Table 5.10: GFA base approved by the Commission for FY 2021-22 (Rs. Crore)

S. No.	Particulars	Approved in the Tariff Order	Claimed by UPCL	Approved
1.	Opening Value	5830.60	6356.26	6606.71
2.	Total addition during the year	601.32	1485.20	601.32
3.	Less: Deletions during the year	0.00	0.00	0.00
4.	Closing value	6431.92	7841.46	7208.03

5.8.2 *Capitalisation during the Fourth Control Period*

The Commission, in the approval of the Business Plan for the fourth Control Period as discussed in Chapter 3 of the Order from FY 2022-23 to FY 2024-25 has approved the capitalisation of Rs. 912.21 Crore in FY 2022-23, Rs. 877.79 Crore in FY 2023-24 and Rs. 858.68 Crore in FY 2024-25. The Commission has considered the year wise capitalisation for the fourth Control Period from FY 2022-23 to FY 2024-25 as approved in the Business Plan at Chapter 3. The GFA base approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 5.11: GFA base approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
Opening GFA	7841.46	7208.03	8721.64	8120.24	10139.34	8998.03
GFA addition during the year	880.18	912.21	1417.70	877.79	1562.51	858.68
Closing GFA	**8721.64**	**8120.24**	**10139.34**	**8998.03**	**11701.85**	**9856.70**

5.9 Means of Finance

The Commission, in the approval of Business Plan for the fourth Control Period from FY 2022-23 to FY 2024-25 as discussed in Chapter 3 of the Order has approved the Financing Plan of the approved capitalisation for the fourth Control Period. The Commission has considered the Financing Plan for the fourth Control Period from FY 2022-23 to FY 2024-25 as approved in the Business Plan. The Financing Plan for FY 2022-23 to FY 2024-25 approved by the Commission is as shown in the Tables given below:

Table 5.12: Details of Financing for FY 2022-23 (Rs. Crore)

Particulars	Grants etc.	Loan	Equity	Total
Opening Value	3111.51	2907.23	1189.30	7208.03
Addition during the year	417.44	349.64	145.12	912.21
Deletions	-	-	-	-
Closing Value of GFA	**3528.95**	**3256.87**	**1334.42**	**8120.24**

Table 5.13: Details of Financing for FY 2023-24 (Rs. Crore)

Particulars	Grants etc.	Loan	Equity	Total
Opening Value	3528.95	3256.87	1334.42	8120.24
Addition during the year	401.69	336.45	139.65	877.79
Deletions	-	-	-	-
Closing Value of GFA	**3930.64**	**3593.32**	**1474.07**	**8998.03**

Table 5.14: Details of Financing for FY 2024-25 (Rs. Crore)

Particulars	Grants etc.	Loan	Equity	Total
Opening Value	3930.64	3593.32	1474.07	8998.03
Addition during the year	392.95	329.12	136.61	858.68
Deletions	-	-	-	-
Closing Value of GFA	**4323.59**	**3922.44**	**1610.68**	**9856.70**

5.10 Interest and Finance Charges

The Petitioner submitted that the interest on loan for the fourth Control Period from FY 2022-23 to FY 2024-25 has been computed by considering the revised closing balance of FY 2021-22 based on the additions in previous years till FY 2021-22. The Petitioner further submitted that new loans for FY 2021-22 and for each year of the fourth Control Period has been considered as per the means of financing of capitalization, while the repayment has been considered equivalent to the depreciation for FY 2021-22 and for each year of the Control Period in line with the UERC Tariff Regulations, 2018. A weighted average rate of interest of 10.63% has been applied which is equivalent to the weighted average rate of interest on capital loans as per audited accounts of UPCL for FY 2020-21 in line with the approach adopted by the Commission in previous Tariff Orders.

The Petitioner submitted that it has considered interest against REC (Old Loans) during the fourth Control Period as per the repayment schedule in accordance with Tariff Order for FY 2009-10 dated October 23, 2009 and as shown in the Table below.

Table 5.15: Repayment Schedule for REC old loans (Rs. Crore)

Particulars	Repayment Schedule for REC old loans
FY 2021-22	10.80
FY 2022-23	1.00

The Petitioner has claimed financing charges of Rs. 4.07 Crore for each year of the fourth Control Period from FY 2022-23 to FY 2024-25. The Petitioner has claimed the guarantee fee of Rs. 0.55 Crore for each year of the fourth Control Period from FY 2022-23 to FY 2024-25.

The Petitioner has also considered rebate amount offered to the consumers for making digital/ online payment of bills as part of interest charges. The Petitioner has claimed rebate of Rs. 2 Crore/month amounting to Rs. 24 Crore per year for each year of the Control Period.

For computing the interest on security deposit, addition in consumer security for FY 2021-22 and each year of the 4th Control Period has been projected by the Petitioner based on the addition in the number of consumers and by considering average security deposit per consumer. The Petitioner further submitted that interest on CSD has been considered based on the provisions specified in Supply Code, i.e. at the RBI Bank rate prevailing as on 1st April 2021. The Petitioner submitted that bank rate prevailing as on 1st April 2021 is 4.25% and, hence, the same has been considered for the purpose of computation of interest on security deposit. The Petitioner has, accordingly, claimed the interest on consumer security deposit of Rs. 47.63 Crore, Rs. 51.87 Crore and Rs. 56.32 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

Accordingly, the Petitioner has claimed the total interest and financing charges of Rs. 170.09 Crore, Rs. 184.45 Crore and Rs. 197.63 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

Regulation 27 of the UERC Tariff Regulations, 2021 specifies as follows:

*"**27. Interest and finance charges on loan capital and on Security Deposit***

(1) The loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 01.04.2022 shall be worked out by deducting the

cumulative repayment as admitted by the Commission up to 31.03.2022 from the approved gross normative loan.

(3) The repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year…

…

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year after providing appropriate accounting adjustment for interest capitalised:

…

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

…"

The Commission has considered the closing loan balance for FY 2020-21 as opening loan balance for FY 2021-22 as discussed in Chapter 4 of the Order. Thereafter, the Commission has considered the loan addition during FY 2021-22 as per the approved means of finance for FY 2021-22. The Commission has considered the depreciation for FY 2021-22 as the normative repayment for the year. The Commission has considered the closing loan balance for FY 2021-22 as the opening loan balance for FY 2022-23. The Commission has considered the loan addition during each year of the fourth Control Period from FY 2022-23 to FY 2024-25 as per the approved Financing Plan.

With regard to the computation of the rate of interest, the Commission after going through the submissions of the Petitioner observed that for computation of the rate of interest, the Opening loan balance considered by the Petitioner for FY 2020-21 was in variance with the closing loan balance for FY 2019-20 as per audited accounts. The Commission, therefore, sought explanation for the same. The Petitioner in response submitted the loan reconciliation statement and stated that the opening loan balances considered are only for the purpose of interest rate computations and should not be considered for loan reconciliation purpose.

The Commission for computation of interest rate, has considered the closing loan balance of FY 2019-20 and corresponding loan wise repayment made in FY 2020-21 as per the audited balance sheet and has worked out the rate of interest as 10.22%. The Commission has further considered the normative repayment equivalent to the approved depreciation for each year of the fourth Control Period. The Commission has determined the interest on loan by applying the interest rate of 10.22% on the amount of average of the opening loan & closing loan excluding the loan additions corresponding to the assets capitalised during the year for each year of the fourth Control Period from FY 2022-23 to FY 2024-25.

The Commission has not allowed interest on additions during the year as the Petitioner capitalises the assets at the end of the financial year, and the amount of interest accrued during the year on the loan portion corresponding to the capital expenditure is treated as Interest during construction and is added to CWIP for the purposes of capitalisation. The interest on loan approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table given below:

Table 5.16: Interest on Loan approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
Opening Loan balance	825.86	961.13	921.10	1084.13	1034.90	1166.55
Drawal during the year	317.55	349.64	361.32	336.45	326.45	329.12
Repayment during the year	222.31	226.65	247.52	254.02	276.08	280.37
Closing Loan balance	921.10	1084.13	1034.90	1166.55	1085.27	1215.31
Interest Rate	10.63%	10.22%	10.63%	10.22%	10.63%	10.22%
Interest	**92.85**	**86.62**	**103.97**	**97.78**	**112.69**	**104.86**

In addition to above, the Commission has considered interest on account of REC Old Loan of Rs. 1.00 Crore in FY 2022-23. Further, with respect to guarantee fee, the Commission has considered the same amount as approved for FY 2020-21, i.e. Rs. 0.55 Crore. The financing charges of Rs. 4.07 Crore as approved for FY 2020-21 has been considered for FY 2022-23. Interest on security deposit has been considered as Rs. 47.63 Crore as claimed by the Petitioner. Timely payment rebate has not been considered a part of interest and financing charges by the Commission and the same shall be adjusted in the actual revenue for FY 2022-23 during the truing up exercise. Besides actual impact of the same cannot be ascertained at this instance and in any case timely payment by consumers of their dues will result in reduction in working capital requirement of UPCL and in turn interest on the same. Thus, the total interest expenses approved for FY 2022-23 works out to Rs. 139.86 Crore as against the Petitioner's claim of Rs. 170.09 Crore.

5.10.1 *Depreciation*

The Petitioner submitted that the asset class wise depreciation has been computed considering the proposed GFA for FY 2021-22 and for each year of the fourth Control Period from FY 2022-23 to FY 2024-25 and the rates of depreciation specified in the UERC Tariff Regulations, 2021. The Petitioner submitted that the average depreciation rate of 5.53% has been applied on the opening GFA for each year computed as per actual capitalization for FY 2020-21 and proposed capitalization for FY 2021-22 and each year of the fourth Control Period from FY 2022-23 to FY 2024-25. The Petitioner further submitted that the assets created from grants and deposit works have been excluded for the purpose of depreciation as per the provisions of the UERC Tariff Regulations, 2021.

Accordingly, the Petitioner has proposed the depreciation of Rs. 222.31 Crore, Rs. 247.52 Crore, and Rs. 276.08 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

Regulation 28 of the UERC Tariff Regulations, 2021 specifies as follows:

*"**28. Depreciation***

(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

Provided that no depreciation shall be allowed on assets funded through Consumer Contribution and Capital Subsidies/Grants.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

...

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations.

..."

In the absence of complete Fixed Asset Register, the Commission at this stage has considered the weighted average rate of 5.53% computed for FY 2020-21 and has applied the same on the opening depreciable GFA for each year of the fourth Control Period from FY 2022-23 to FY 2024-25.

The depreciation approved by the Commission for the fourth Control Period from FY 2022-

23 to FY 2024-25 is as shown in the Table given below:

Table 5.17: Depreciation approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
Opening GFA	7841.46	7208.03	8721.64	8120.24	10139.34	8998.03
Grants	3823.40	3111.51	4247.89	3528.95	5149.41	3930.64
Depreciable opening GFA	4018.06	4096.52	4473.76	4591.29	4989.93	5067.39
Net addition during the year	455.70	494.76	516.18	476.10	466.36	465.73
Closing GFA	4473.76	4591.29	4989.93	5067.39	5456.29	5533.12
Depreciation rate	5.53%	5.53%	5.53%	5.53%	5.53%	5.53%
Depreciation	**222.31**	**226.65**	**247.52**	**254.02**	**276.08**	**280.37**

5.10.2 *Operation and Maintenance expenses*

Regarding the Operation and Maintenance expenses, Regulation 84 of the UERC Tariff Regulations, 2021 specifies as follows:

*"**84. Operation and Maintenance Expenses***

(1) The O&M expenses for the first year of the Control Period shall be approved by the Commission taking into account the actual O&M expenses for last five years till Base Year subject to prudence check and any other factors considered appropriate by the Commission.

(2) The O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. 2021-22, shall be approved based on the formula given below:-

O&Mn = R&Mn + EMPn + A&Gn

Where –

- *O&Mn – Operation and Maintenance expense for the nth year;*
- *EMPn – Employee Costs for the nth year;*
- *R&Mn – Repair and Maintenance Costs for the nth year;*
- *A&Gn – Administrative and General Costs for the nth year;*

(3) The above components shall be computed in the manner specified below:

EMPn = (EMPn-1) x (1+Gn) x (1+CPIinflation)

R&Mn = K x (GFA n-1) x (1+WPIinflation) and

A&Gn = (A&Gn-1) x (1+WPIinflation) + Provision

Where -

- *EMP_{n-1} – Employee Costs for the (n-1)th year;*
- *A&G n-1 – Administrative and General Costs for the (n-1)th year;*

Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.

- *'K' is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*
- *CPIinflation – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;*
- *WPIinflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;*
- *GFAn-1 – Gross Fixed Asset of the distribution licensee for the n-1th year;*
- *Gn is a growth factor for the nth year and it can be greater than or less than zero based on the actual performance. Value of Gn shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, and any other factor that the Commission feels appropriate:*

Provided that repair and maintenance expenses determined shall be utilised towards repair and maintenance works only.

Provided further that, repair and maintenance expenses for IT related assets and non-IT related assets shall be computed separately under these Regulations if the distribution utility maintains separate record of assets wise detail of R&M expenses claimed under these Regulations."

The O&M expenses include Employee expenses, R&M expenses and A&G expenses. In accordance with Regulation 84 of the UERC Tariff Regulations, 2021, the O&M expenses for the first year of the Control Period shall be determined by the Commission taking into account the actual O&M expenses of the previous years and any other factors considered appropriate by the Commission. The submissions of the Petitioner and the Commission's analysis on the O&M expenses for the fourth Control Period from FY 2022-23 to FY 2024-25 is detailed below.

5.10.2.1 Employee expenses

The Commission has approved the employee expenses of Rs. 356.55 Crore for FY 2021-22 in its Order dated April 26, 2021 on approval of ARR for FY 2021-22. As against the same, the Petitioner has computed the employee expenses for FY 2021-22 as Rs. 379.51 Crore considering the actual employee expenses for FY 2020-21.

The Petitioner submitted that the employee expenses for FY 2021-22 and the fourth Control Period from FY 2022-23 to FY 2024-25 has been computed as per the following methodology.

a. The opening normative gross employee cost (EMPn-1) for FY 2021-22 has been considered as Rs. 405.90 Crore which is the actual gross employee cost of FY 2020-21 (EMPn-1).

b. Escalation factor: CPI inflation for FY 2021-22 and for 4th Control Period has been considered as 6.00%, which is the average increase in CPI for preceding three years till the base year (FY 2018-19 to FY 2020-21).

c. Growth Factor: Gn factor for each year of the 4th Control Period has been considered based on the net addition of employees.

d. Actual Capitalisation of 14.10% has been considered for each year based on actual capitalisation rate of FY 2020-21.

e. The Petitioner further submitted that any impact due to pay revision and/terminal benefits may be allowed at the time of truing–up of respective years.

Accordingly, the Petitioner has proposed the employee expenses of Rs. 403.21 Crore, Rs. 434.62 Crore and Rs. 469.91 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

The Commission, in the approval of Business Plan for the fourth Control Period from FY 2022-23 to FY 2024-25, as discussed in Chapter 3 of this Order, has approved the HR Plan. Based on the approved HR Plan, the Commission has computed the Gn factor as shown in the Table below:

Table 5.18: Gn approved by the Commission

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Closing no. of employees	2532	2588	2594	2638	2691
Gn		2.21%	0.23%	1.70%	2.01%

The UERC Tariff Regulations, 2021 specifies that the normative O&M expenses for the fourth Control Period is to be approved taking into account the actual O&M expenses for the last five years. The Commission observed that the Seventh Pay Commission was implemented w.e.f. January 01, 2016 and the salaries were raised to the level of Seventh Pay Commission w.e.f. December 01, 2017. Considering the period from FY 2016-17 to FY 2020-21, the impact of Seventh Pay Commission in the employee expenses was from FY 2017-18 and also not all the employees had opted for VII Pay Commission. Hence, there is aberration in last 5 years actual expenses due to the impact of Seventh Pay Commission for computation of the normative employee expenses.

In view of the above, the Commission does not find it prudent to approve the normative employee expenses for the fourth Control Period based on the actual employee expenses for FY 2016-17 to FY 2020-21 as the employee expenses related to this period includes the impact of revision in salaries as well as arrears due to the Seventh Pay Commission.

Regulation 103(2) of the UERC Tariff Regulations, 2021 specifies as under:

"Nothing in these Regulations shall bar the Commission from adopting in conformity with provisions of the Act, a procedure which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or a class of matters, deems it just or expedient for deciding such matter or class of matters."

In view of the special circumstances in this case, in exercise of powers conferred by the above stated Regulation, the Commission finds it prudent to deviate from the methodology specified in the UERC Tariff Regulations, 2021 for approval of normative employee expenses for the fourth Control Period from FY 2022-23 to FY 2024-25 to the extent of consideration of actual employee expenses for the preceding five years.

The Commission has considered the normative gross employee expenses approved in the true up of FY 2020-21 as the opening gross employee expenses. This normative opening gross employee expenses have been escalated by Gn factor approved for FY 2021-22 and escalated with CPI Inflation of 5.35% to arrive at the normative employee expenses for FY 2021-22. The gross employee expenses so arrived have been considered as the gross employee expenses (EMPn-1) for

FY 2021-22. From FY 2022-23 onwards, the Commission has computed the normative employee expenses in accordance with the Regulation 62(3) considering the Gn factor approved for the corresponding year and the CPI inflation of 6.00%. Further, the Commission has considered the actual capitalisation rate of employee expenses for FY 2020-21 to be the capitalisation rate for each year of the fourth Control Period.

Accordingly, the normative employee expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 5.19: Employee expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
EMPn-1	441.81	436.59	469.41	463.86	505.97	500.03
Gn	0.23%	0.23%	1.69%	1.70%	2.00%	2.01%
CPIinflation	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
EMPn = (EMPn-1) x (1+Gn) x (1+CPIinflation)	**469.41**	**463.86**	**505.97**	**500.03**	**547.06**	**540.68**
Capitalisation rate	14.10%	14.10%	14.10%	14.10%	14.10%	14.10%
Less: Employee expenses capitalised	66.20	65.42	71.36	70.52	77.15	76.25
Net Employee expenses	**403.21**	**398.44**	**434.62**	**429.51**	**469.91**	**464.43**

5.10.2.2 R&M expenses

The Commission has approved the R&M expenses of Rs. 183.93 Crore for FY 2021-22 in its Order dated April 26, 2021 on approval of ARR for FY 2021-22. As against the same, the Petitioner has computed the R&M expenses for FY 2021-22 as Rs. 203.70 Crore as per the UERC Tariff Regulations, 2021.

The Petitioner submitted that the R&M expenses for the fourth Control Period from FY 2022-23 to FY 2024-25 has been proposed as per the UERC Tariff Regulations, 2021. The Petitioner submitted the following approach for projecting R&M expenses.

a. The Petitioner submitted that it has worked out the break-up of IT and Non-IT related Assets as well as the R&M expenses respectively to compute them separately.

b. The Petitioner submitted that it has considered 'K' factor at the rate of 2.94% for FY 2021-22 and for the 4th Control Period for Non-IT related Assets.

c. The 'K' factor has been applied to the opening GFA on Non-IT related assets for FY 2021-22 and for 4th Control Period.

d. A WPI inflation of 2.42% has been considered for FY 2021-22 and for 4th Control Period for Non-IT related Assets.

e. The Petitioner has proposed R&M expenses for IT related assets in line with the approach adopted by the Commission for Data Centre expenses being allowed as separate expenses under A&G expenses (over and above normative expenses).

The Petitioner projected the K factor for IT and Non-IT assets as per the Table given below:

Table 5.20: IT & Non-IT related Assets and R&M Expenses breakup for past period

Year	Gross Fixed Assets (Rs. Cr.) as on year end			R&M Expenses (Rs. Cr.)				
	IT Assets	Non-IT Assets	Total	IT Assets	Non-IT Assets	Total	% of Opening IT Assets	% of Opening Non- IT Assets
2015-16	14.66	4,276.36	4,291.02	0.88	114.63	115.51	-	-
2016-17	15.02	4,514.29	4,529.31	2.94	110.76	113.70	20.1%	2.6%
2017-18	20.49	4,906.37	4,926.86	8.83	121.09	129.92	58.8%	2.7%
2018-19	138.40	5,726.19	5,864.59	7.03	130.63	137.66	34.3%	2.7%
2019-20	141.88	6,036.23	6,178.11	5.64	172.04	177.68	4.1%	3.0%
2020-21	143.76	6,212.50	6,356.26	5.26	189.61	194.87	3.7%	3.1%
Last 3 years Average (K factor)							**14.03%**	**2.94%**

Accordingly, the Petitioner has proposed the R&M expenses of Rs. 241.54 Crore, Rs. 269.12 Crore and Rs. 308.54 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

The Commission after going through the submissions of the Petitioner observed that the total GFA submitted vide the above Table was not matching with the GFA claimed by the Petitioner. The Commission, therefore, sought rectification of the same. The Commission also sought details of the Non-IT Assets and the details of corresponding R&M expenses submitted in the Petition.

The Petitioner vide its reply submitted the revised GFA figures and the break-up of IT assets and R&M expenses for IT Assets as follows:

Table 5.21: IT & Non-IT related Assets and R&M Expenses breakup for past period

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY2019-20	FY2020-21
Additions in IT Assets	0.98	0.36	5.47	117.91	3.48	1.88
R&M Expenses	0.88	2.94	8.83	7.03	5.64	5.60

The Commission observed that the R&M expenses in some of the years prior to FY 2018-19 were even exceeding the cost of the assets and reduced when substantial capex was incurred in FY 2018-19. The Commission, therefore, is of the view that since there is aberration in the actual data, hence, it would not be prudent to separately approve R&M expenses for IT related assets.

The Commission has, therefore, determined the consolidated R&M expenses for the fourth Control Period from FY 2022-23 to FY 2024-25 in accordance with UERC Tariff Regulations, 2021. The Commission has computed the percentage of actual R&M expenses on the approved Opening GFA for each year of FY 2016-17 to FY 2020-21 and, accordingly, the Commission has considered the average of such percentages as K factor which works out to 3.11%. The Commission has considered the opening GFA for each year of the fourth Control Period from FY 2022-23 to FY 2024-25. The Commission has considered the WPI inflation of 2.42% which is the average increase in the Wholesale Price Index (WPI) from FY 2018-19 to FY 2020-21.

Accordingly, the R&M expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 5.22: R&M expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
K*	2.94%	3.11%	2.94%	3.11%	2.94%	3.11%
GFAn-1	7647.48	7208.03	8524.77	8120.24	9807.26	8998.03
WPI inflation	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%
R&Mn = K x (GFAn-1) x (1+WPI inflation)	**229.96**	**229.91**	**256.34**	**259.01**	**294.90**	**287.00**
Add: R&M Expenses – IT	11.58	-	12.79	-	13.64	-
Total R&M Expenses	**241.54**	**229.91**	**269.12**	**259.01**	**308.54**	**287.00**

** UPCL has claimed K factor for Non-IT Assets*

5.10.2.3 A&G expenses

The Commission had approved the A&G expenses of Rs. 54.80 Crore for FY 2021-22 in its Order dated April 26, 2021 on approval of ARR for FY 2021-22. As against the same, the Petitioner has computed the A&G expenses for FY 2021-22 as Rs. 69.75 Crore as per the UERC Tariff Regulations, 2021.

The Petitioner submitted that the A&G expenses comprises of following main components.

1) Existing Expenses.

2) New Initiatives.

3) Provisions.

The Petitioner submitted that it has considered a similar approach as considered for employee expenses and in line with Regulations for projecting the A&G expenses in the 4th Control Period. The approach submitted by the Petitioner is as stated below:

a. An escalation factor, i.e. WPI inflation of 2.42% has been applied for FY 2021-22 and for each year of the 4^{th} Control Period to arrive at the normative A&G expenses for the subsequent years.

b. Capitalization rate of 24.49% based on actual capitalization rate of FY 2020-21 has been considered for each year.

c. Additional expenditure on account of License fee has been estimated and claimed separately.

d. FMS/Bandwidth expenses have been claimed over and above normative computations in line with current approach of the Commission.

Accordingly, the Petitioner has proposed the A&G expenses of Rs. 71.90 Crore, Rs. 76.80 Crore and Rs. 82.18 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

The Commission has considered the normative gross A&G expenses approved in the true up of FY 2020-21 as the gross base A&G expenses. This normative opening gross A&G expenses have been escalated by the WPI inflation of 2.42% to arrive at A&G expenses for FY 2021-22. The gross A&G expenses so arrived at have been considered as the gross A&G expenses (A&Gn-1) for FY 2021-22. From FY 2022-23 onwards, the Commission has computed the normative A&G expenses in accordance with Regulation 84(3) considering the WPI inflation of 2.42%. Further, the Commission has considered the actual capitalisation rate of A&G expenses for FY 2020-21 to be the capitalisation rate for each year of the fourth Control Period. In addition, the Commission has considered the license fee as Rs. 4.03 Crore for FY 2022-23, Rs. 4.23 Crore for FY 2023-24 and Rs. 4.45 Crore for FY 2024-25 in line with the claims made by the Petitioner.

As regards the additional provisioning towards the new expenses proposed during each year of the Control Period towards the data centre, the Commission agrees with the Petitioner that these expenses were not there in previous Control Period and, hence, provisioning of these expenses needs to be allowed in addition to the A&G expenses approved based on previous years

A&G expenses. Accordingly, the Commission has considered the provisioning of additional A&G expenses for data centre as claimed by the Petitioner for each year of the fourth Control Period. However, the Commission would like to clarify that the actual expenses towards provisioning of such costs shall be considered upon truing up subject to prudence check and any expense found unreasonable or unwarranted may be disallowed and any savings in provisioning of these costs shall not be considered towards sharing of gains. **Moreover, the Petitioner is directed to properly account for these provisions in appropriate heads of accounts so that the same can be easily identified during the truing up of respective years.**

The normative A&G expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 5.23: A&G expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
A&Gn-1	50.57	31.07	51.79	31.82	53.04	32.59
WPIinflation	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%
A&Gn = A&Gn-1 x (1+WPIinflation) + Provision	51.79	31.82	53.04	32.59	54.32	33.38
Capitalisation rate	24.49%	34.87%	24.49%	34.87%	24.49%	34.87%
Less: A&G expenses Capitalised	12.68	11.10	12.99	11.36	13.30	11.64
Net A&G expenses	39.11	20.73	40.05	21.23	41.02	21.74
Provisioning towards additional Data Centre expenses	28.76	28.76	32.51	32.51	36.72	36.72
License Fee	4.03	4.03	4.23	4.23	4.45	4.45
Total A&G expenses	**71.90**	**53.52**	**76.80**	**57.97**	**82.18**	**62.90**

5.10.2.4 O&M expenses

The summary of O&M expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2023-24 is as shown in the Table below:

Table 5.24: O&M Expenses approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
Employee Expenses	403.21	398.44	434.62	429.51	469.91	464.43
A&G Expenses	71.90	53.52	76.80	57.97	82.18	62.90
R&M Expenses	241.54	229.91	269.12	259.01	308.54	287.00
Total O&M Expenses	**716.64**	**681.87**	**780.54**	**746.49**	**860.63**	**814.34**

5.10.3 *Smart Metering Opex*

The Petitioner submitted that it would be undertaking Smart Metering of consumers, Distribution transformers, feeders etc. in Revamped Distribution Sector Scheme (RDSS). The Petitioner provided the summary of the treatment to smart metering expenses as below:

a) The target for smart metering is estimated to be 12 Lakh in the 4th Control Period;

b) Phasing estimated is 10%, 40% & 50% in each year of 4th Control Period;

c) The smart meters as per the RDSS guidelines are to be installed on TOTEX mode, i.e. Capital expenditure and O&M expenditure over a period of 5-7 years. The Petitioner has assumed 7 years for this proposal which is the practice being adopted by some of the States;

d) Under Totex mode, since there is no capital expenditure being made by Petitioner the assets would be in the books of the implementing agency;

e) The Petitioner has assumed Rs. 80 per consumer per meter as rent + GST for a period of 7 years.

f) The grant of Rs. 1350 per meter would be provided by Govt./Nodal agency upon installation of the meter and as per condition stipulated in RDSS guidelines.

g) The Petitioner submitted that since the OPEX cost and grant amount are to be netted off and would be exactly known at a later stage, no cost is being considered in the ARR at this moment.

The Petitioner in view of the above has requested that Opex cost towards Smart Metering be allowed based on actuals in the truing up proceedings of respective years as per the RDSS guidelines and the DPR to be approved by Govt/ Nodal agency.

The Commission has gone through the submissions of the Petitioner and is of the view that such expenses shall be considered at the time of truing up.

5.10.4 *Interest on Working Capital*

The Petitioner has submitted that the interest on working capital for the fourth Control Period from FY 2022-23 to FY 2024-25 has been proposed in accordance with the UERC Tariff Regulations, 2021. Accordingly, the Petitioner has proposed the IWC of Rs. 123.20 Crore, Rs. 129.02 Crore and Rs. 135.36 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

Regulation 33(2) of the UERC Tariff Regulations, 2021 specifies as follows:

*"(2) **Distribution***

*(1) **Distribution:***

a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

(i) Operation and maintenance expenses for one month;

(ii) Maintenance spares @ 15% of operation and maintenance expenses; plus

(iii) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs;

(iv) Capital required to finance such shortfall in collection of current dues as may be allowed by the Commission; minus

(v) One month equivalent of cost of power purchase, based on the annual power procurement plan.

The Commission has determined the interest on working capital for the fourth Control Period in accordance with the UERC Tariff Regulations, 2021.

Since the Commission has not approved the power purchase cost for FY 2023-24 and FY 2024-25, the Commission has determined the interest on working capital for FY 2022-23 only in this Order.

5.10.4.1 One Month O&M Expenses

The annual O&M expenses approved by the Commission are Rs. 681.87 Crore for FY 2022-23. Based on the approved O&M expenses, one month's O&M expenses work out to Rs. 56.82 Crore for FY 2022-23.

5.10.4.2 Maintenance Spares

The Commission has considered the maintenance spares as 15% of annual O&M expenses in accordance with UERC Tariff Regulations, 2021, which works out to Rs. 102.28 Crore for FY 2022-23.

5.10.4.3 Receivables

The Commission has approved the receivables for two months equivalent to the expected revenue from the sale of electricity at the prevailing tariff of Rs. 7513.09 Crore for FY 2022-23, which works out to Rs. 1252.18 Crore for FY 2022-23.

5.10.4.4 Capital required to finance shortfall in collection of current dues

The Petitioner has claimed Rs. 269.54 Crore towards the capital required to finance the shortfall in collection of current dues for FY 2022-23.

The Commission has approved the collection efficiency of 99.15% for FY 2022-23 while approving the Business Plan of UPCL for the fourth Control Period of FY 2022-23 to FY 2024-25. In accordance with the provisions of the UERC Tariff Regulations, 2021 the Commission has approved the capital required to finance the shortfall in collection of current dues as 0.85% of the net revenue required which work out Rs. 65.53 Crore.

5.10.4.5 Adjustment for credit by power suppliers

The Petitioner has proposed one month of power purchase cost as Rs. 546.96 Crore for FY 2022-23. As per the Power purchase approved, one month of power purchase cost worked out by the Commission is Rs. 506.36 Crore.

Based on the above, the total working capital requirement of the Petitioner for FY 2022-23, works out to Rs. 970.45 Crore. The interest on working capital for FY 2022-23 as approved by the Commission is as shown in the Table below:

Table 5.25: Interest on working capital approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	Claimed by UPCL	Approved
O&M expenses for 1 month	59.72	56.82
Maintenance Spares	107.50	102.28
2 months of expected revenue at prevailing tariffs	1283.55	1252.18
Capital required to finance shortfall in collection of current dues	269.54	65.53
Minus: One month credit by power suppliers	546.96	506.36
Net Working Capital	**1173.34**	**970.45**
Rate of Interest on Working Capital	10.50%	10.50%
Interest on Working Capital	**123.20**	**101.90**

5.10.5 *Return on Equity*

The Petitioner has considered the opening Equity for FY 2022-23 as Rs. 1165.29 Crore. The Petitioner has considered the equity addition during each year of the fourth Control Period from FY 2022-23 to FY 2024-25 as per the proposed financing plan for the respective year. The Petitioner has proposed the Return on Equity at the rate of 16.50% on the Opening Equity for the year. Accordingly, the Petitioner has proposed the Return on Equity of Rs. 192.27 Crore, Rs. 215.07 Crore, and Rs. 240.62 Crore for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

Regarding the Return on Equity, Regulation 26 of the UERC Tariff Regulations, 2021 specifies as follows:

> *"**26. Return on Equity***
>
> *(1)Return on equity shall be computed on the equity base determined in accordance with Regulation 24.*
>
> *Provided that, Return on Equity shall be allowed on amount of allowed equity capital for the assets put to use at the commencement of each financial year.*
>
> *Provided further that, if the generating stations/licensees are able to demonstrate the actual date of asset being put to use and capitalized in its accounts of each asset for the purposes of business carried on by it through documentary evidence, including but not limited to 'asset put to use certificate', 'audited accounts' etc., then in such cases, after due satisfaction of the Commission, the RoE shall be allowed on pro-rata basis after considering additional capitalization done during the year out of the equity capital.*
>
> *(2) Return on equity shall be computed on at the base rate of 15.5% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis.*
>
> *Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the distribution company or the generating station or the transmission system;"*

In accordance with the UERC Tariff Regulations, 2021, Return on Equity is allowable on the opening equity for the year. Hence, the Commission has determined the Return on Equity for each year of the Fourth Control Period from FY 2022-23 to FY 2024-25 considering the eligible opening equity for return purposes for the respective year.

Further, the proviso to the above-mentioned Regulation on RoE provides that if the licensee is able to demonstrate that the actual date of asset being put to use and capitalized in its accounts for the purposes of business carried on by it through documentary evidence, then Return on Equity shall be allowed on pro-rata basis considering additional capitalisation done during the year. However, at this stage it cannot be projected when the asset will be capitalised. Moreover, as discussed in Chapter 4 of this Order, it has been the practice of the Petitioner to capitalise the assets at the end of the year. Hence, the Commission may consider the Return on Equity on pro-rata basis at the time of truing-up if complete details as per the proviso to the Regulations are submitted by the Petitioner.

Accordingly, the Commission has considered the closing eligible equity for return purposes approved for FY 2020-21 as the opening balance for FY 2021-22 as discussed in Chapter 4 of the Order. Thereafter, the Commission has considered the equity addition during FY 2021-22 as per the approved means of finance for FY 2021-22. The Commission has considered the closing balance for FY 2021-22 as the opening balance for FY 2022-23.

The Return on Equity approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table below:

Table 5.26: Return on Equity approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 (Rs. Crore)

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed by UPCL	Approved	Claimed by UPCL	Approved	Claimed by UPCL	Approved
Opening Equity	1165.29	937.76	1303.43	1082.89	1458.29	1222.54
Addition during the year	138.14	145.12	154.85	139.65	139.91	136.61
Closing Equity	1303.43	1082.89	1458.29	1222.54	1598.19	1359.14
Rate of Return	16.50%	16.50%	16.50%	16.50%	16.50%	16.50%
Return on Equity	**192.27**	**154.73**	**215.07**	**178.68**	**240.62**	**201.72**

5.10.6 *Income Tax*

The Petitioner has not claimed any Income Tax in its ARR proposals for the fourth Control Period from FY 2022-23 to FY 2024-25.

Regulation 34 of the UERC Tariff Regulations, 2021 specifies as follows:

"34. Tax on Income

Income Tax, if any, on the income stream of the regulated business of Generating Companies, Transmission Licensees, Distribution Licensees and SLDC shall be reimbursed to the Generating Companies, Transmission Licensees, Distribution Licensees and SLDC as per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to the prudence check."

As stated above, Income Tax is admissible at the time of truing up and, hence, the Commission has not considered any Income Tax in the approval of ARR for the fourth Control Period from FY 2022-23 to FY 2024-25.

5.10.7 *Provision for Bad and doubtful debts*

Regulation 31 of the UERC Tariff Regulations, 2021 specifies as follows:

"31. Bad and doubtful debts

(1) The Commission may allow a provision for bad and doubtful debts upto one percent (1%) of the estimated annual revenue of the distribution licensee, subject to actual writing off of bad debts by it in the previous years.

Provided further that where the total amount of such provisioning allowed in previous years for bad and doubtful debts exceeds five (5) per cent of the receivables at the beginning of the year, no such appropriation shall be allowed which would have the effect of increasing the provisioning beyond the said maximum."

The Petitioner submitted that it has received approval from the Commission on Policy for Provisioning and Writing Off Bad & Doubtful Debts. The Petitioner further submitted that it would be implementing the same from FY 2021-22 onwards and, accordingly, claim the amount in the true-up of the respective years.

The Petitioner further submitted that the present actual collection efficiency is lower than 97% and, hence, provision of at least 2% is required. The Petitioner further submitted that there has been pending actual write-offs to be allowed by the Commission due to which the Board of the Petitioner has suggested to claim the pending amount in tariff and, thereafter, undertake exercise for further provisioning of bad and doubtful debts.

The Petitioner further sought liberty from the Commission to claim the write-offs at the time of true-up as per the provisions of Tariff Regulations and/Policy approved by the Commission.

The Commission as discussed in Chapter 4 of the Order and for reasons stated therein, has not considered any amount towards provision of bad and doubtful debts while carrying out the truing up for FY 2020-21. Besides, the Petitioner has also not claimed any amount in its Petition. The Commission shall, however, consider the same once specific approvals are in place in accordance with the Policy approved by the Commission, at the time of true up on actual basis of the respective years subject to prudence check.

5.10.8 *Non-Tariff Income*

The Petitioner has proposed non-tariff income of Rs. 286.81 Crore, for all the years of the Control Period based on the actuals for FY 2020-21.

The Commission has projected Non-Tariff Income of Rs. 286.81 Crore on the basis of actual trued up for FY 2020-21.

5.10.9 *Revenue requirement for FY 2022-23*

Based on the above, the net Revenue Requirement approved by the Commission for FY 2022-23 is as shown in the Table below:

Table 5.27: Revenue Requirement approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	Claimed by UPCL	Approved
Power Purchase Cost including RPO Water Tax	5621.07	**5866.73**
UJVN Ltd. Arrears/(Surplus)	-	-62.97
Transmission Charges		
PGCIL	641.63	558.33
PTCUL & SLDC	300.86	320.11
Interest on Loan	170.09	139.86
Depreciation	222.31	226.65
O&M expenses	716.64	681.87
Interest on Working Capital	123.20	101.90
Return on Equity	192.27	154.73
Aggregate Revenue Requirement	**7988.06**	**7987.21**
Less: Non-Tariff Income	286.81	286.81
True up impact GAP/(SURPLUS)	178.38	8.61
Net Revenue Requirement	**7879.63**	**7709.01**

5.10.10 *Revenue at Existing Tariff*

The Petitioner has projected the revenue of Rs. 7432.10 Crore for FY 2022-23 at the existing Tariff.

By applying the Tariff for FY 2021-22 as approved in Tariff Order dated April 26, 2021, the Commission has estimated the total consumer category wise revenue for FY 2022-23 as Rs. 7513.09 Crore.

The revenue at existing Tariff as proposed by the Petitioner and estimated by the Commission is shown in the Table given below:

Table 5.28: Revenue for FY 2022-23 at existing Tariff (Rs. Crore)

S. No.	Consumer Category	Proposed by the Petitioner			Estimated by the Commission		
		Sales (MU)	Revenue (Rs. Crore)	Average Billing Rate (Rs./kWh)	Sales (MU)	Revenue (Rs. Crore)	Average Billing Rate (Rs./kWh)
1.	RTS-1: Domestic	3,892	1752.43	4.50	3929	1796.14	4.57
2.	RTS-2: Non-Domestic	1,404	958.38	6.82	1398	932.78	6.67
3.	RTS-3: Govt Public Utilities	856	552.50	6.45	848	545.17	6.43
4.	RTS-4: Private Tube Wells	243	51.68	2.12	254	53.98	2.12
5.	RTS-5: Industry				6399	4026.80	6.29
	LT Industry	*334*	211.74	6.33	341	212.49	6.24
	HT Industry	*6,033*	3768.84	6.25	6058	3814.30	6.30
6.	RTS-6: Mixed Load	183	107.69	5.88	184	108.20	5.89
7.	RTS-7: Railway Traction	30	19.20	6.48	30	18.68	6.27
8.	RTS-9: EV charging stations	18	9.64	5.50	18	9.64	5.50
9.	Revenue from Incremental Sales	-	-	-	38	21.72	5.74
Total		**12995**	**7432.10**	**5.72**	**13098**	**7513.09**	**5.74**

5.10.11 *Revenue Gap for FY 2022-23 at existing Tariff*

Based on the net revenue requirement of Rs. 7879.63 Crore (including the proposed True up amount for FY 2020-21) and revenue at existing Tariff of Rs. 7432.10 Crore, the Petitioner has proposed the revenue gap of Rs. 447.53 Crore to be recovered by way of proposed Tariff for FY 2022-23.

Considering the net revenue requirement of Rs. 7709.01 Crore and revenue at existing Tariff of Rs. 7513.09 Crore, the Commission has approved the revenue gap of Rs. 195.92 Crore for FY 2022-23. The Commission has approved the increase in Retail Tariff for FY 2022-23 to cover the approved revenue gap of Rs. 195.92 Crore. The revenue gap for FY 2022-23 proposed by the Petitioner and approved by the Commission is as shown in the Table given below:

Table 5.29: Revenue Gap for FY 2022-23 (Rs. Crore)

Particulars	Proposed by the Petitioner	Approved
Net Revenue Requirement	**7879.63**	**7709.01**
Revenue at existing Tariff	7432.10	7513.09
Revenue Gap	**447.53**	**195.92**

6. Tariff Rationalisation, Tariff Design and related issues

6.1 Tariff Rationalisation and Tariff Design for FY 2022-23

6.1.1 *General*

In Chapter 5 of this Order, it has been concluded that the revenue projected to be earned by UPCL during FY 2022-23 at tariffs approved vide Tariff Order dated 26.04.2021 will be Rs. 7513.09 Crore. Against this, the ARR approved by the Commission for FY 2022-23 including gap and surplus on account of truing up of previous years works out to Rs. 7709.01 Crore, leaving a total gap of Rs. 195.92 Crore.

In view of the objections received and the Petitioner's submissions, the Commission considers it appropriate to first take a view on the tariff rationalisation measures proposed by the Petitioner and the concerns voiced by other stakeholders.

6.1.2 *Petitioner's Proposals*

The Petitioner submitted that the tariff proposal has been formulated with an attempt to keep the impact minimum on the consumers.

The Petitioner also proposed the following amendment in the Tariff structure for FY 2022-23:

6.1.2.1 Green Power Tariff

The Petitioner submitted that the Central Government is working on a green tariff policy that will help electricity distribution companies (discoms) supply electricity generated from clean energy projects at a cheaper rate as compared to power from conventional fuel sources such as coal. Large Corporates who are looking to procure only green power, can contract such power from a clean energy developer as it is done in Commercial and Industrial (C&I) segment and Discoms will sell surplus power (or may buy additional green power if required) and supply it at 'Green Tariff'. Green Tariff will be the weighted average tariff of green energy that consumers will have to pay. The tariff will be slightly lower than tariff from conventional fuel sources and a new regulation will help to ensure, if an industry wants only green power from developer, open access applications will be approved within a fortnight.

A provision for a separate green tariff is also seen to reduce the hesitation of DISCOM in going for power purchase from RE sources, as this mechanism will not impact general tariffs. Recently in 2021, Maharashtra Electricity Regulatory Commission has approved a 'Green Power Tariff' of Rs. 0.66/kWh to be levied on consumers opting for 100% green energy. On the similar grounds, the Petitioner has proposed the Green Power Tariff for the consumers of the State of Uttarakhand who are willing to opt for 100% Green Power.

Computation of Green Power Tariff

The total power purchase cost projected by the Petitioner for Non-RE power (excluding RE power eligible for RPO) is provided in the Table below:

Table 6.1: Computation of Non-RE and RE Power cost

Particulars	FY 2022-23	FY 2023-34	FY 2024-25	Total for MYT period
Computation of cost for Non RE power (Total Power minus RE power)				
Net Generation at state periphery – (MU)	13,672	14,214	14,127	42,013
Total power purchase cost (Rs. Crore)	4,918	5,258	5,364	15,540
Net Rate of Non RE power (Rs/kWh)	3.60	3.70	3.80	3.70
Computation of cost for RE power				
Net Generation – (MU)	1,556	1,765	2,629	5,949
Total Cost (Rs. Crore)	703	802	1,164	2,669
Net Rate of RE power (Rs/kWh)	4.52	4.55	4.43	4.49
Total cost for Non RE power & RE power				
Net Generation at state periphery – (MU)	15,227	15,979	16,756	47,962
Total cost excl. Transmission chgs (Rs. Crore)	5,621	6,061	6,528	18,209
Net Rate (Rs/kWh)	3.69	3.79	3.90	3.80

In view of the above, Green Power Tariff proposed by UPCL is as follows:

Table 6.2: Computation of Green Power Tariff for FY 2022-23

Particulars	Computation
Average cost of RE for MYT period (Rs/kWh)	4.49
Less: Average cost of Non-RE for MYT period (Rs/kWh)	3.70
Difference (Rs/kWh)	0.79
Less: Promotional discount for Green Power for FY 2022-23	25%
Applicable Green Power Charges (Rs/kWh)	**0.59**

The Petitioner submitted that the Green Power Tariff recovered from these consumers for supply of 100% renewable energy will increase the other business income of the distribution business. As per Section 51 of The Electricity Act 2003, a proportion of the revenues derived from such business shall, as may be specified by the concerned State Commission, be utilized for reducing its charges for wheeling. Therefore, these services will further subsidize the ARR of the distribution business and normal tariff of the consumers may also get proportionately subsidized. Further, these initiatives will also promote the Government of India pledge towards green energy, clean environment and sustainable development Goals.

In view of the above, the Petitioner requested the Commission to:

- Approve the 100% Green Power scheme on payment of Green Power tariff as may be approved by Commission initially only for RTS-5 HT Industry having contracted load above 88 kVA/75 kW (100 BHP);
- Approve the procurement of additional Renewable Energy to meet the 100% Green Energy requirement of consumers, if required;
- Approve issuance of a monthly certificate to the consumers certifying 100% green energy sale;
- Approve the "Green Power Tariff" as proposed above or as deemed fit by the Commission towards processing the 100% Green Energy Requirement;
- Allow treatment of this RE power under RPO of UPCL in case the consumers do not wish to use the green attributes for meeting its RPO obligations.

6.1.2.2 Recovery from Fixed Charges

The Petitioner requested the Commission for Rationalisation of Tariff, i.e. Fixed/ Demand Charges linked to its fixed cost components and Energy Charges linked to variable components. The Petitioner submitted that out of the total ARR, all costs except variable power purchase cost of thermal power plants like coal and gas are fixed in nature, i.e. O&M and Financial Costs will be incurred/claimed in ARR irrespective of sale of energy.

The Petitioner submitted that Tariff for Fixed charges and Energy charges should be adjusted gradually, say over a period of three to five years, so as to make the retail tariff cost structure reflective of the actual Fixed Cost. This will ensure that fixed charges obligation of the Petitioner is recovered from fixed/demand charges realized from consumers and there is better management of working capital.

6.1.3 *Commission's Views on Tariff Rationalisation Measures*

The Commission believes that tariff rationalisation is a dynamic and ongoing process and is essential to accommodate the socio-economic and technological changes taking place in the system over a period of time.

The following Sections discuss the tariff rationalisation measures suggested by the Petitioner, Respondents, and the Commission's views on the same.

6.1.3.1 Green Power Tariff

The Commission has observed that the Petitioner has requested the Commission to approve green power tariff for consumers who are willing to purchase 100% Renewable Energy from the Distribution Licensee. These consumers are either not eligible for taking 100% RE power from Open Access or they do not have the resources, expertise and the bandwidth required for carrying out this activity. Given that the proposed arrangement is completely voluntary in nature, the Commission is inclined to consider it. Further, it will promote Renewable Energy in the State encouraging greater acceptance which is also one of the mandates under the Electricity Act, 2003.

The Commission has analysed the proposal submitted by the Petitioner. It is noted that the Petitioner has proposed to supply 100% RE power to consumers, who are willing to purchase 100% Renewable Energy and the Petitioner has proposed tariff of Rs. 0.59/kWh in addition to the applicable tariff of the consumer.

The Commission opines that since the proposal is new and various modalities of this arrangement needs to be analysed further. The Commission at this stage has considered the Petitioner's proposal for supplying 100% RE power on payment of Green Power tariff only for RTS-5 HT Industry having contracted load above 88 kVA/75 kW (100 BHP) as suggested by the Petitioner.

The Petitioner has proposed to levy a Green Power Tariff of Rs. 0.59/kWh, which is basically the difference of weighted average rate of RE procurement and weighted average rate of non-RE procurement. Since the Petitioner had initially signed PPA for RE procurement at higher rates, the weighted average rate of its RE portfolio is higher and hence the difference.

The Commission opines that the Renewable Energy Power is intermittent in nature and in order to supply 100% RE power to any consumer it entails additional cost towards grid balancing and fixed cost of stranded capacity, which cannot be passed to other consumers of the State. Therefore, it is necessary to recover such additional cost from these consumers requiring 100% RE power only and not from the other consumers of the State. However, the Green Power Tariff should also be reasonable to the consumer, thereby acting as a catalyst for wider acceptance of RE.

The Commission has analysed the approach adopted by Other State Electricity Regulatory Commission and opines that it is appropriate to compute Green Power Tariff as the difference of weighted average rate of RE procurement and weighted average rate of non-RE procurement which is also in line with the Petitioners' proposal. However, since the cost of such RE procurement is already embedded in the base tariff being determined by the Commission some benefit needs to be passed on to the consumer as well. Accordingly, the Commission considers it appropriate to levy only 50% of the rate so arrived from the consumers willing to procure 100% RE power from DISCOMs. However, this approach may be reviewed by the Commission at the time of determining the tariff for subsequent period based on the experience gained during the course of time. Based on the above, Green Power Tariff approved by the Commission for FY 2022-23 is shown in the Table below:

Table 6.3: Green Power Tariff approved by the Commission for FY 2022-23

RE Power Procurement for the Period FY 2022-23			Non-RE Power Procurement for the Period FY 2022-23			Difference between RE & Non-RE Power	Approved Green Power Tariff
MU	**Rs. Crore**	**Rs/Unit**	**MU**	**Rs. Crore**	**Rs/Unit**	**Rs/Unit**	**Rs/Unit**
A	B	C	D	E	F	G = (C – F)	H=G*50%
1555.17	701.39	4.51	13801.9	4991.47	3.62	0.89	0.45

In view of the above, the Commission approves the Green Power Tariff of Rs. 0.45/kWh, which will be applicable for consumers availing 100% RE power on payment of Green Power tariff in addition to applicable tariff for RTS-5 HT Industry having contracted load above 88 kVA/75 kW (100 BHP).

The revenue earned by the Petitioner from such sale of green power shall be considered as Tariff Income at the time of truing up. Such treatment of revenue shall also ensure that the benefit of the same is passed on to other consumers of the State.

As regards the issuance of a monthly certificate to the consumers certifying 100% green power sale, the Commission is of the view that the Petitioner can issue such certificate to the consumers who are availing 100% green power.

The Petitioner has requested to allow treatment of this RE power under RPO of UPCL in case the consumers does not wish to use the green attributes for meeting its RPO obligations. The Commission would like to clarify that such green energy supplied by the Petitioner to consumers will be duly considered for meeting RPO of UPCL in case the RPO obligated consumers does not wish to consider the same for meeting its RPO obligations.

6.1.3.2 Fixed Charges, Minimum charges and Minimum Consumption Guarantee

It is a well-accepted economic principle that the fixed costs of the Utility should be recovered to a certain extent through fixed charges to ensure revenue stability. At the same time, the Commission recognises that if the entire fixed cost is recovered through fixed charges, then the utility shall have no incentive to be concerned about the sales and, hence, quality of supply may suffer. Historically, the recovery of fixed costs has been done through a mix of minimum charges and fixed charges. Levy of Minimum Consumption Guarantee Charges (MCG) is a way of ensuring minimum revenue to the utility from the consumers, however, if the consumption exceeds the specified units, then no MCG charges are levied on the consumers and the entire charges are recovered by the utility through energy/fixed charges.

The fixed charge component reflecting the fixed cost of providing the service to the consumer and the energy charge component reflecting the cost of energy actually consumed should ideally be taken in the two-part tariff structure.

Section 45(3) of the Electricity Act, 2003 also provides for levy of fixed charges. The relevant Section is reproduced below:

> *"The charges for electricity supplied by a distribution licensee may include:*
>
> *(a) a fixed charge in addition to the charge for the actual electricity supplied;*
>
> *..."*

Further, the licensee is incurring fixed cost directly attributable to the individual consumers such as meter reading, bill preparation, bill distribution and collection, which should ideally be allocated to and recovered from each consumer. One of the guiding factors mentioned in Section 61 of the Electricity Act, 2003 for specifying terms and conditions of tariffs is that the tariff has to be gradually cost reflective. Considering that levy of higher fixed charges should not impact the consumers adversely, the Commission in its Tariff Order dated March 18, 2008, introduced a nominal fixed charge for all the categories as a progression towards designing a two part tariff structure linked to the cost structure. Further, in its subsequent Tariff Orders from FY 2009-10 to FY 2020-22, considering the level of proportion of fixed costs as a percentage of total costs of UPCL and level of revenue recovery from fixed charges, the Commission had marginally increased the fixed charges for most of the categories to increase the revenue recovery from fixed charges and at the same time avoiding tariff shock to any consumer category.

UPCL has requested the Commission to rationalise the tariffs in such a manner that over next 3 to 5 years, the fixed costs of the ARR is recovered from the Fixed Charges/Demand Charges. The Commission appreciates that the recovery from Fixed Charges/Demand Charges should increase over a period of time, but the entire fixed costs is not allowed to be recovered through Fixed/Demand Charges as it will lead to tariff shock for the consumers. Further, if the Utility's entire fixed costs is allowed to be recovered through Fixed/Demand Charges, the Utility will not have any motivation to supply power to the consumers. The increase in recovery from Fixed/Demand Charges should be gradually increased to a certain level. Accordingly, the Commission in this Order also has marginally increased the fixed charges and thus, at the approved tariffs, the recovery from Fixed Charges from the consumers for FY 2022-23 is estimated to be around 16.05% against the total fixed cost incidence on the Petitioner of around 59% of the licencee's ARR for FY 2022-23.

The Commission in its Tariff Order dated March 18, 2008 had mentioned that ideally, the fixed charges should be levied on the basis of contracted/sanctioned load for all the categories. However, for domestic category, considering the data on sanctioned load which had number of consumers having contracted load in fractions (<1 kW) and also considering the quality of metering and billing data, the Commission introduced the fixed charges on per connection basis. The Commission in its Tariff Order dated October 23, 2009, specified different fixed charges on per connection basis for domestic consumers having contracted/sanctioned load upto 4 kW and consumers having contracted/sanctioned load above 4 kW. Further, during the tariff proceedings for FY 2015-16, the Commission floated an in-house paper on the issue of Fixed Charges based on consumption and the Commission after detailed deliberations in its Order dated April 11, 2015 introduced consumption based fixed charges for domestic consumers. As discussed in earlier Tariff orders the Commission is of the view that ideally, the fixed charges should be levied on the basis of contracted/sanctioned load for all the categories to have cost reflective tariffs. However, considering the issues related to data of sanctioned load, the Commission introduced the fixed charges based on the consumption and the same is continuing till date. However, the Commission had received representations and also during the public hearings it was pointed out that consumption based fixed charges are difficult to understand and also that malpractice is creeping in billing of fixed charges. As the data related to sanctioned load has improved over a period of time, the Commission in this Order is approving the Fixed Charges for domestic category on sanctioned load basis.

6.1.3.3 Continuous Supply Surcharge

The Commission, in its Tariff Order dated October 23, 2009, had approved continuous supply surcharge @ 15% of the Energy Charge for consumers opting for supply during restricted hours (continuous). Further, all the consumers had an option to opt for continuous supply irrespective of whether they were on dedicated independent feeder or on mixed feeder. In accordance with the above provision, even if a single consumer in mixed feeder opted for continuous supply, its benefit got extended to all the consumers on that mixed feeder. This was a sort of discrimination amongst the consumers who had opted for continuous supply on mixed feeder and those who had not opted for continuous supply on mixed feeder as both enjoyed the benefit of continuous supply irrespective of the fact that they were paying any continuous supply surcharge or not. On the other hand, if the supply on the mixed feeder was required to be cut during rostering, the supply of continuous supply consumer also got unintentionally cut.

The Commission in order to rectify this anomaly had taken a view in its Tariff Order dated April 10, 2010 that the option of continuous supply should be made available only to consumers who are connected on a dedicated independent feeder or industrial feeder provided that all the industrial consumers on such feeder opt for continuous supply. The Commission was also of the view that considering the supply shortage position, this option was to be provided only to the continuous process industries requiring continuous supply due to continuous nature of their process. In this connection, the Commission would like to refer to Regulation 3(2) of UERC (Release of new HT & EHT Connections, Enhancement and Reduction of Loads) Regulations, 2008, which provided that loads for all HT consumers having continuous processes, irrespective of load applied for, shall be released through independent feeder only. The Commission in its Tariff Order dated April 10, 2010 had, therefore, decided that with effect from May 1, 2010, the option of continuous supply shall remain available only to continuous process industries operating twenty four hours a day and for seven days in a week without any weekly off. Further, this option was only to be available to continuous process industries connected through an independent feeder or industrial feeder provided that all the industrial consumers on such feeder opted for continuous supply option and for availing such an option, they were required to pay 15% extra energy charges at revised tariff with effect from May 1, 2010 or from the date of connection, whichever is later till 31st March, 2011 irrespective of actual period of continuous supply option. Further, the Commission in its Tariff Order dated April 10, 2010 also decided that the load shedding would be applicable for all the consumer categories except continuous process industries availing continuous supply option and, hence, the Commission abolished the mechanism of allowing utilisation of power upto 15% of the contracted load by industrial consumers who did not opt for continuous supply.

In its Tariff Order for FY 2011-12 dated May 24, 2011, Tariff Order for FY 2012-13 dated April 11, 2012, MYT Order dated May 06, 2013 and APR Order dated April 10, 2014 the Commission decided to continue with the same provisions for Continuous Supply as approved in its Order dated April 10, 2010.

The Commission in its ARR/Tariff Order dated April 11, 2015 after detailed deliberations on the issue after floating the in-house paper extended the option of continuous supply to non-continuous process industries in addition to the continuous process industries. The Commission in its Tariff Order dated 21.03.2018, considering the fact that the deficit in winter months had reduced as compared to the previous years, reduced the continuous supply surcharge from 15% of energy charges to 10% of energy charges. The Commission in its Tariff Order for FY 2019-20 dated 27.2.2019 decided to continue with the continuous supply surcharge of 10% of energy charges. Further, the Commission in its Tarif Order for FY 2020-21 dated 18.4.2020 considering the requests of various stakeholders decided to reduce the continuous supply surcharge from 10% of energy charges to 7.5% of energy charges.

Further, the Commission in its Tariff Order for FY 2021-22 dated 26.04.2021 considering the requests of various stakeholders decided to reduce the continuous supply surcharge from 7.5% of energy charges to 5% of energy charges.

In these tariff proceedings, the Commission has received mixed responses from various stakeholders. Some of the industries submitted that the continuous supply surcharge be reduced or abolished.

The Commission would like to clarify that the State of Uttarakhand is still facing power shortage and UPCL is procuring short term power from market to meet the demand. Even for FY 2022-23, the Commission has estimated a deficit of about 857 MU in winter months during October to March in the requirement of UPCL which is of substantial nature. The Commission has estimated a surplus of about 654 MU during April, 2022 to September, 2022 in the requirement of UPCL for FY 2022-23 which would be banked with other States to offset the deficit during winter months. Hence, the Commission does not find any reason to abolish the continuous supply surcharge altogether as during winters UPCL is still having deficit. However, the deficit in winter months has reduced as compared to the previous years. Hence, the Commission in order to provide relief to HT industries has decided to reduce the continuous supply surcharge from 5% of energy charges to 2.5% of energy charges. The Commission will review the same once the aforesaid deficit in UPCL's requirement is wiped off.

The option of continuous supply shall only be available to continuous and non-continuous industries connected on an independent feeder or industrial feeder provided that all the industrial consumers on such feeder opt for continuous supply option. The existing non-continuous process industrial consumers opting for continuous supply shall pay 2.5% extra energy charges with effect from April 01, 2022 or in case of new consumers from the date of new connection, till March 31, 2023 irrespective of actual period of continuous supply. However, in case of re-arrangement of supply through independent feeder, the Continuous Supply Surcharge shall be applicable from the date of energisation of aforesaid independent feeder till March 31, 2023, irrespective of actual period of continuous supply option.

In this regard, the Commission would like to clarify certain key issues, pertaining to applicability conditions for existing and new continuous and non-continuous supply consumers in order to avoid any misinterpretation of the conditions, and the same are discussed as under:

- Consumers who have opted for Continuous supply shall continue to remain Continuous Supply Consumers and they need not to apply again for seeking continuous supply option. Such consumers shall pay 2.5% extra energy charges, in addition to the energy charges approved, w.e.f. April 01, 2022 till March 31, 2023. However, in case of any pending dispute with UPCL in the matter of continuous supply on certain feeders, those consumers will have to apply afresh, for availing the facility of continuous supply by April 30, 2022.

- The existing consumers who are new applicants for continuous supply of power (including those who are applying afresh as per above condition) can apply for seeking the continuous supply option at any time during the year. However, continuous supply surcharge for such existing consumers shall be applicable with effect from May 01, 2022 till March 31, 2023. UPCL shall provide the facility of continuous supply within 7 days from the date of application, subject to fulfilment of Conditions of Supply as mentioned in Clause 6 under Tariff Schedule of RTS-5. However, in case of re-arrangement of supply through independent feeder, UPCL shall provide the facility of continuous supply from the date of completion of work of independent feeder subject to fulfilment of Conditions of Supply and the continuous supply surcharge on such consumers shall be applicable from the date of energisation of aforesaid independent feeder till March 31, 2023, irrespective of actual period of continuous supply option.
- The existing consumers availing continuous supply option, who wish to discontinue the continuous supply option granted to them earlier, will have to communicate, in writing, to UPCL latest by April 30, 2022 and they shall continue to pay continuous supply surcharge alongwith the tariff approved in this Order till April 30, 2022. Further, in this regard, if due to withdrawal by one consumer from availing continuous supply option on a particular feeder, the status of other continuous supply consumers in that feeder is affected, then UPCL shall inform all the affected consumers in writing, well in advance.
- UPCL shall not change the status of a continuous supply feeder to a non-continuous supply feeder.
- UPCL/PTCUL shall take up augmentation, maintenance and overhauling works on top priority, specially in the sub-stations where circuit breakers, other equipments, etc. are in dilapidated condition and, thereby, shall ensure minimisation of interruptions of

the continuous supply feeders.

- UPCL/PTCUL shall carry out periodical preventive maintenance of the feeders supplying to continuous supply consumers. The licensees shall prepare preventive maintenance schedule, in consultation with continuous supply consumers, well in advance, so that such consumers can plan their operations, accordingly.
- Continuous supply surcharge shall not be applicable on power procured by industrial consumers through open access.

6.1.3.4 Tariff Categorisation for HT Industries and Load Factor based Tariff

The Commission has considered the stakeholders/industries responses and observed that some of the consumers have again raised the issue of load factor based tariff for HT Industries. Some of the stakeholders submitted that the load factor based tariff for HT Industries is discriminatory as well as against the provisions of the Act, Tariff Policy and the Commission's Tariff Regulations. Some of the stakeholders also submitted that the higher consumption needs to be promoted and discount/rebate should be provided for maintaining higher load factor.

The Commission would like to highlight Section 62(3) of the Act, which empowers the Appropriate Commission, while determining the tariff, to differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity etc. Section 62(3) of the Act is reproduced below:

> *"The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the **consumer's load factor**, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required" **(emphasis added)**.*

Regulation 92(2) of UERC Tariff Regulations, 2018, specifically empowers the Commission to design load-factor based tariffs for any category of consumers and is reproduced below:

> *"The Commission, shall not, while determining the tariff, show undue preference to any consumer of electricity but may differentiate according to consumer's load factor, voltage, total consumption of electricity during any specified period or time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required."*

The Commission in its Order dated April 11, 2015 after detailed deliberations in response to the in-house paper had modified the slabs for load factor based tariff from three slabs to two slabs.

Further, as discussed in Chapter 2 of the Order, some of the stakeholders submitted that the principle applied for the categorisation of the industry on the basis of load factor should be on the principle of higher the load factor, lower the tariff as prevalent in other States. They further expressed that the higher load factor implies that the consumer consumes nearly as much as it has contracted for and has paid the demand charges, accordingly, and the Utility stands to benefit by higher load factor because the utility is able to sell more electricity which it has arranged for meeting the demand of the consumer. They further opined that if the load factor is lower, the utility would find itself having contracted more power from generating companies than it would be able to sell to the consumers and in this process may suffer loss.

The Commission does not agree with the views of the stakeholders that higher load factor implies that the Utility stands to benefit from selling more electricity which it has arranged for meeting the demand of the consumer and load incidence on the system matches with the contracted demand/load of the consumers of the State. The Commission would like to clarify that there is diversity in time of usage of electricity by different consumers and, hence, the actual simultaneous maximum demand of all the consumers put together shall always be less than the summation of their contracted loads. Further, nowhere, the Utility makes the power purchase arrangement equivalent to the contracted demand of its consumers. Further, increase or decrease of the contracted load, and/or, the load factor, by consumer does not actually influence the consumption pattern of consumers including diversity factor and, hence, the actual simultaneous maximum demand is the basis for contracting power from different sources by the licensee rather than the contracted load/load factor of the consumers. Further, the utilisation of the contracted capacity for State consumption from firm sources of generation by UPCL is more than 90% and balance is surplus, the Petitioner uses this surplus for Banking during summer/monsoon months in order to take it back during winter months when it has apparent deficit supply vis-a-vis demand. With the increase in load factor of consumers, the energy requirement of the Utility will further increase, and the Petitioner will be left with no surplus power to Bank during summer/monsoon months in order to take back during deficit winter months. This inability of the Petitioner will require to purchase power at marginal price, i.e. the Petitioner will have to purchase costlier power to meet the increase in energy requirement at higher load factor.

The two part tariff tends to encourage high consumption as the same reduces the effective per unit composite rate. Accordingly, to correct this, tariff also needs to increase in a manner so as to achieve a near uniform composite rate. To achieve this, demand and energy charges will have to increase with every small increase in contracted demand or load utilization percentage. Although theoretically possible, such an approach would make the tariffs too complex, incomprehensible and will pose serious problems in implementation. There is, therefore, a trade-off between the simplicity of the tariff structure and precision in correcting the above distortion. The Commission's attempt has been to strike a balance between the two by choosing a uniform rate of demand charge and different rates of energy charges linked to the consumption levels represented by the Load Factor. The Commission has avoided sharp increase in energy charges and has infact modified the three slabs in HT industry category prevalent earlier to only two slabs in its previous Tariff Order dated April 11, 2015.

As had been illustrated by the Commission in its previous Tariff Orders in case of single energy charge, without any load factor slabs, the effective tariff of an intended cross-subsidising consumer goes down steeply with increasing load factor, thereby, reducing the quantum of cross-subsidy charged from it. After a threshold level of load factor, this structure leads to an undesirable anomaly that the effective tariff becomes lower than the average Cost of Supply and the consumer instead of being subsidising consumer becomes subsidised consumer. Thus, this structure apart from leading to the above said anomaly is highly inequitable amongst the consumers of the same category with consumers having low load factor being loaded with much higher effective tariff and making up for loss on account of lower effective tariff even below the average cost of supply paid by high load factor consumers. Transition from subsidising consumer to subsidised consumer with increasing load factor is not only incorrect but is also highly undesirable.

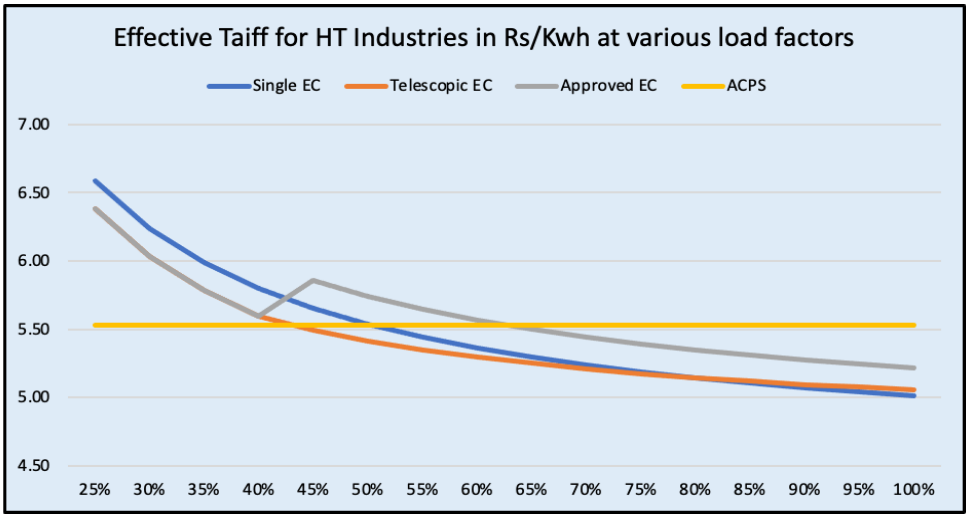
Some of the stakeholders represented that the tariff structure for HT Industries should also be telescopic. In Uttarakhand, as the cross-subsidies are very low, the tariff needs to be corrected at different load factors to ensure that steepness of the effective tariff curve does not reduce the cross-subsidies to very low level or make them negative (subsidised). Further, there is a practical difficulty in implementing slabs of tariffs for excess consumption only, due to ToD tariffs in vogue. Apportionment of various slabs of consumption for different time slots would be very complicated and would result in disputes between licensee and consumers as consumer would like to book cheapest load factor slab (1st slab) against peak hour consumption and highest load factor slab (last slab) against off-peak hour consumption. The licensee, on the other hand, would like to book first load factor slab against off-peak consumption and the last load factor slab under peak hour consumption. Thus, this structure would unnecessarily complicate the billing process and would also lead to disputes. Due to these reasons, the Commission is not implementing telescopic slab based tariff for HT industrial consumers.

The above reasoning can be easily explained by taking an example with the figures of approved tariff (Demand Charges Rs. 360/kVA/month and Energy Charges in two slabs of Rs. 3.95 and 4.35/kVAh for FY 2019-20, where Average Cost of Supply was taken as Rs. 5.28/kWh and average tariff from HT industrial consumers including ToD surcharge and rebate was designed to be Rs. 5.79/kWh. It is evident that in case of single energy charge of Rs. 4.10/kVAh and demand charge of Rs. 360/kVA/month, without any load factor slabs, the effective tariff of an intended cross-subsidising consumer goes down steeply with increasing load factor, thereby, reducing the quantum of cross-subsidy charged from it. After a threshold level of load factor, this structure leads to an undesirable anomaly that the effective tariff becomes lower than the average Cost of Supply and the consumer instead of being subsidising consumer becomes subsidised consumer. Thus, this structure apart from leading to the aforesaid anomaly is highly inequitable amongst the consumers of the same category with consumers having low load factor being loaded with much higher effective tariff and making up for loss on account of lower effective tariff even below average Cost of Supply paid by high load factor consumers. The same applies to the condition if telescopic slab energy charges for HT industries [Demand Charges: Rs. 370/kVA/monthly, Energy Charges: for consumption upto LF 40%: Rs. 4.20/kVAh & for consumption exceeding LF 40%: Rs. 4.60 kVAh as approved for FY 2020-21 are considered], the reduction in effective tariffs is almost similar to the case where single energy charges are approved without any slab. The Table & Graph below shows these anomalies of consumers getting cross-subsidised falling below average cost of supply after a particular load factor and wide range of tariffs over different load factors with the single energy charge without any slab and telescopic slabs. Increase of cross-subsidisation of HT industry with increasing load factor (particularly > 45%) is not only incorrect but also highly undesirable.

Table 6.4: Effective Tariff & Cross-subsidy for HT Industry having contracted load 1 KVA

Load Factor	Consumption (kVAh)	Demand Charge (Rs/ kVA)	Energy Charge (Rs./kVah)			Total Amount			Effective Tariff (Rs.kWh)			Cost of Supply	Cross Subsidy %		
			Single EC of Rs.3.60 /kVah	Telescopic Tariff	Approved Tariff	Single EC of Rs.3.60/ kVah	Telescopic Tariff	Approved Tariff	Single EC of Rs.3.60/kVah	Telescopic Tariff	Approved Tariff	Rs/ kWh	Single EC of Rs.4.40 /kVah	Telescopic Tariff	Approved Tariff
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(3)+ (4)	(8)=(3)+ (5)	(9)=(3)+(6)	(10)=(7)/(2x 0.98)	(11)=(8)/(2x 0.98)	(12)=(9)/(2x 0.98)	-13	(14)=(10/13)-1	(15)=(11/13)-1	(16)=(12/13)-1
25%	180	370	792	756	756	1162	1126	1126	6.59	6.38	6.38	5.53	19.12%	15.43%	15.43%
30%	216	370	950	907	907	1320	1277	1277	6.24	6.03	6.03	5.53	12.80%	9.11%	9.11%
35%	252	370	1109	1058	1058	1479	1428	1428	5.99	5.78	5.78	5.53	8.28%	4.59%	4.59%
40%	288	370	1267	1210	1210	1637	1580	1580	5.80	5.60	5.60	5.53	4.90%	1.21%	1.21%
45%	324	370	1426	1375	1490	1796	1745	1860	5.66	5.50	5.86	5.53	2.26%	-0.61%	5.95%
50%	360	370	1584	1541	1656	1954	1911	2026	5.54	5.42	5.74	5.53	0.15%	-2.06%	3.85%
55%	396	370	1742	1706	1822	2112	2076	2192	5.44	5.35	5.65	5.53	-1.57%	-3.25%	2.12%
60%	432	370	1901	1872	1987	2271	2242	2357	5.36	5.30	5.57	5.53	-3.01%	-4.24%	0.68%
65%	468	370	2059	2038	2153	2429	2408	2523	5.30	5.25	5.50	5.53	-4.22%	-5.07%	-0.53%
70%	504	370	2218	2203	2318	2588	2573	2688	5.24	5.21	5.44	5.53	-5.26%	-5.79%	-1.57%
75%	540	370	2376	2369	2484	2746	2739	2854	5.19	5.18	5.39	5.53	-6.17%	-6.41%	-2.48%
80%	576	370	2534	2534	2650	2904	2904	3020	5.15	5.15	5.35	5.53	-6.96%	-6.96%	-3.27%
85%	612	370	2693	2700	2815	3063	3070	3185	5.11	5.12	5.31	5.53	-7.65%	-7.44%	-3.96%
90%	648	370	2851	2866	2981	3221	3236	3351	5.07	5.10	5.28	5.53	-8.27%	-7.86%	-4.58%
95%	684	370	3010	3031	3146	3380	3401	3516	5.04	5.07	5.25	5.53	-8.83%	-8.25%	-5.14%
100%	720	370	3168	3197	3312	3538	3567	3682	5.01	5.05	5.22	5.53	-9.33%	-8.59%	-5.64%

Graph 1 : Effective HT Industrial Tariff



Hence, in view of the above, the Commission is continuing with the existing load factor based tariff structure for HT Industry.

6.1.3.5 Time of Day Tariff

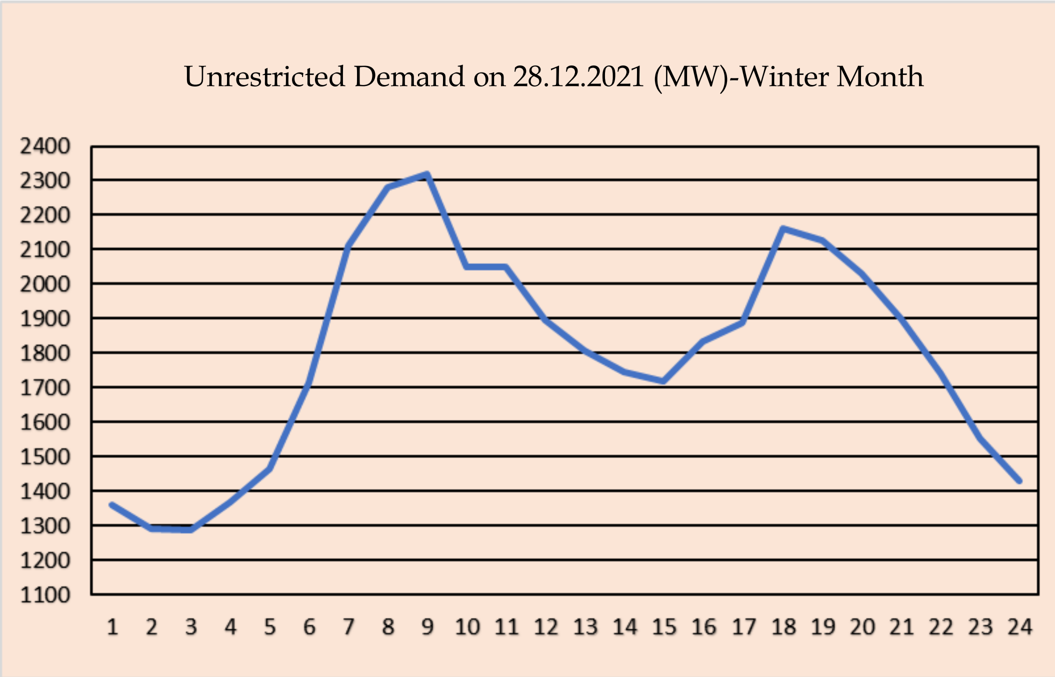
Regarding Time of Day Tariff, the stakeholders requested the following:

- Abolish the morning peak hours.
- Reduce the peak hours timings in such a manner that the Single Shift Industry can operate for 8 hours with normal tariff.
- The ToD charges should be retained at existing levels.
- The rebate for consumption during off-peak hours should be increased.

The Commission in its Tariff Order for FY 2010-11 dated April 10, 2010 approved the peak hour rate as 50% higher than the normal hour rate for Industrial Category. Further, in case of HT industries, the Commission has specified the peak hour rate as 50% higher than the normal hour rate applicable for highest load factor slab, i.e. energy charge for load factor above 50% for all the HT industrial consumers. The Commission kept the rebate during off peak hours to 10% to incentivise the shift in consumption from peak hours to off peak hours. The Commission in its Tariff Order dated 21.03.2018 in order to incentivise the consumers for shifting the demand from Peak hours to Off Peak hours, increased the off-peak hour rebate from existing level of 10% to 15% in energy charges.

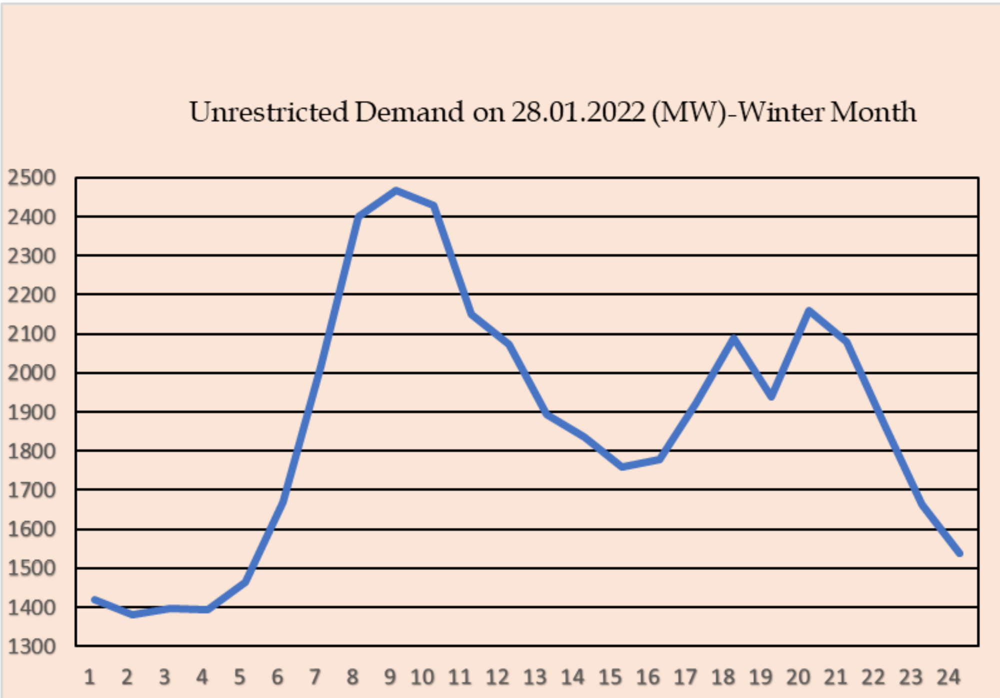
The Commission, in each of its tariff determination exercise, has been analysing the shift from the peak hours to normal and off-peak as well as the consumption pattern during the peak and off-peak hours in the State. The Commission has analysed the unrestricted load curves in summer as well as the winter month to assess the consumption during peak hours in these months. The load curves for the days having highest peak load in the months of summer and winter season, have been examined and the same are graphically presented below:

Chart 1: Load Curve for 28th December 2021 (MW) [Winter Month]



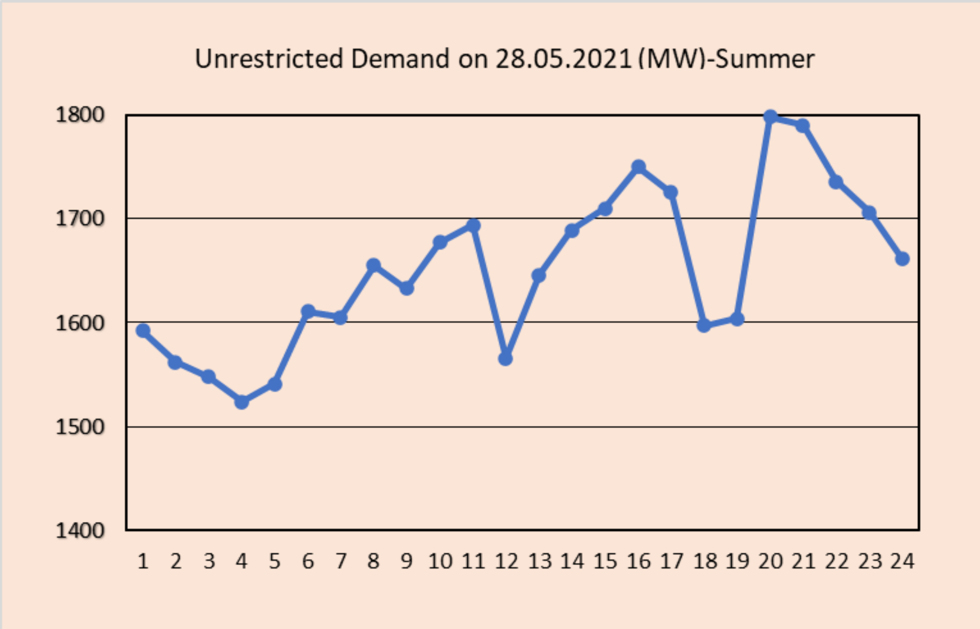
Morning Peak Demand – 2318 MW at 9.00 AM
Evening Peak Demand - 2160 MW at 6.00PM

Chart 2: Load Curve for 28th Jan 2022 (MW) [Winter Month]



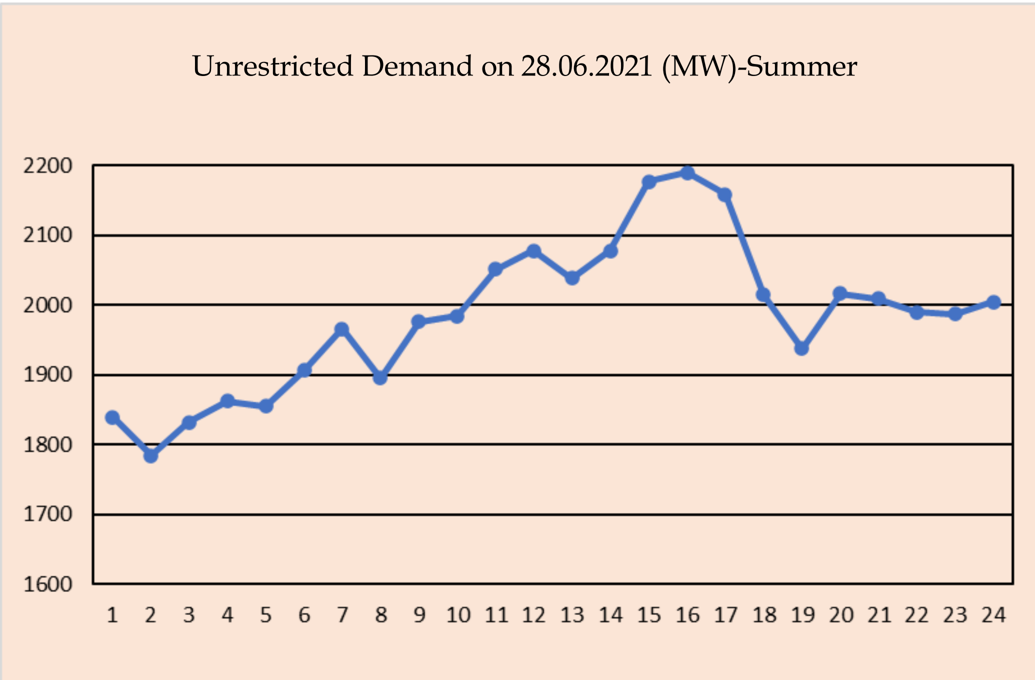
Morning Peak Demand – 2468 MW at 9.00 AM
Evening Peak Demand – 2160 at 8.00 PM

Chart 3: Load Curve for 28th May, 2021 (MW) [Summer Month]



Peak Demand –1798 MW at 8.00 PM
No Morning Peak

Chart 4: Load Curve for 28th June, 2021 (MW) [Summer Month]



Evening Peak Demand – 2189 at 4.00 PM
No Morning Peak

It is observed from the above graphical presentations that during the winter season both morning as well as evening peak demand exists in the State. Infact, in the months of December and January, the morning peak demand has been found to be even more pre-dominant than the evening peak demand. From Chart 1 & 2 illustrating the load curve for December 28, 2021 and January 28, 2022 respectively, it can be observed that the demand starts rising from 6.00 a.m. till it reaches the peak at about 8.00 a.m. or 9.00 am and then starts falling around 9.00 a.m. in the morning and flattens by around 11.00 a.m. Hence, the request of the stakeholders regarding abolishing the morning peak hours cannot be accepted since it would defeat the demand side management through tariffs in vogue in the State. Further, it is seen from the above graphs that the overall system peak of Uttarakhand State during the year is significantly observed in the morning hours also besides evening peak.

The Commission feels the need for DSM and having ToD tariff as a measure for ensuring curtailment of morning as well as evening peaks. Considering all these aspects, the Commission in the present Order is continuing with the morning peak hours during winter season and evening peak hours for the entire year. During the tariff order for FY 2019-20, some of the stakeholders requested that the peak hour slots shall be modified in such a way that the General Single Shift Industry should get clear 8 hours of operations at normal tariff. The Commission in its Order dated February 27, 2019 considering the requests of the stakeholders and the load pattern during peak hours modified the Peak, Normal and Off Peak hour duration for ToD metering slots in such a manner that the Industry gets nine hours for working during normal hours and they are able to operate eight hours in General Shift with one hour break modified the normal hours to 0900-1800 hours in winters and 0700-1800 hours in summers.

During the current tariff proceedings also some of the stakeholders and State Advisory Committee Members requested the Commission to modify the peak hour slot in such a way that the General shift industry should get 8 hours for operation at normal tariff by changing the winter peak hours from 0600-09000 hours to 0600-0800 hours. Considering the requests received from the stakeholders, the Commission has decided to modify the morning peak hours in winters from 0600-0800 hours. There would be no change in evening Peak, Normal and Off Peak hour duration for ToD metering slots as approved in Order dated February 27, 2019 as follows:

Table 6.5: Peak and Off-Peak Hours

Season/Time of day	Morning Peak hours	Normal hours	Evening Peak Hours	Off-peak Hours
Winters 01.10 to 31.03	0600-0800 hrs	0800-1800 hrs	1800-2200 hrs	2200-0600 hrs
Summers 01.04 to 30.09	--	0700-1800 hrs	1800-2300 hrs	2300-0700 hrs

As regards the peak hour surcharge and off-Peak hour rebate, the Commission in its previous Tariff Order dated April 26, 2021 increased the off-Peak hour rebate from 15% to 20% in order to incentivise the consumers to shift the consumption to Off-peak hours. During the current tariff proceedings, the stakeholders submitted that the peak hour surcharge in the State of Uttarakhand is very high as compared to other States and requested the Commission to reduce the same. The Commission considering the requests of the stakeholders have decided to reduce the peak hour surcharge to 30% instead of 50% and the Commission has kept the off-Peak hour rebate at current level of 20%.

6.1.3.5.1 Prepaid metering

The Commission recognises that Prepaid Metering is expected to provide better services to the consumers, improve and secure the cash flow of the Petitioner and also lead to reduction in consumer grievance and dissatisfaction to the consumers.

The Petitioner has proposed to continue with the existing terms of the pre-paid supply approved by the Commission for FY 2021-22. The Commission accordingly approves the following conditions for Pre-Paid Metering as approved in April 26, 2021:

a) The option of Pre-paid metering shall be available for all categories of consumers upto 25 kW load under LT category. Prepaid Metering shall be mandatory for new Temporary LT connections, for Advertisements/Hoardings and for Government connections upto 25 kW.

   Provided that the option of prepaid metering shall not be available to the Seasonal industries covered under Rate Schedule RTS-5.

b) There shall be a minimum recharge of Rs. 100 and the maximum limit of recharge shall be Rs. 15,000 for both single phase and three phase connections. Validity of the recharge shall be continued till the amount is available in the account of the consumer. Any recharge shall be allowed only when the 20 digit special meter reading code shall be made available by the consumer.

c) As regards the charging for testing of meter, the Petitioner shall recover the amount as approved by the Commission under Schedule of Miscellaneous Charges directly from such prepaid consumers as is done for postpaid consumers and shall not be charged from the recharge amount.

d) The Petitioner shall issue an advertisement in the newspapers within 15 days of the issue of this Order, briefly mentioning salient features of the Prepaid Metering Scheme for LT consumers upto 25 kW to provide an option to the consumer to express their interest to opt for the Prepaid metering scheme latest by June 15, 2022.

It may be noted that the objective of calling applications for Prepaid metering shall be primarily for the purpose of estimation of the requirement of such meters based on the demand of the Scheme. Based on the requests received from the consumers opting for Prepaid metering, UPCL shall implement the Prepaid metering in a phased manner. Further, the Petitioner may also allow prepaid metering services to even those consumers who could not submit their request within the above stipulated time given in the advertisement and wish to opt for it subsequently.

e) The Petitioner is also directed to prepare a Salient Features of the Prepaid Metering Scheme (in 1-2 pages) and circulate the same along with the bills of May, 2022 to all the eligible consumers, i.e. LT consumers upto 25 kW, to facilitate wide circulation as well as to provide salient features of the proposed mechanism of the Prepaid Metering Scheme.

f) In case, the consumer opting for Prepaid Metering have outstanding arrears, the Petitioner shall adjust 20% of the past arrears or 50% of the recharge amount, whichever is higher from the recharge voucher, subject to the maximum of the outstanding arrears. Further, the maximum limit of recharge as mentioned above, shall not be applicable in case of consumers having outstanding arrears and accordingly, such consumers having past arrears will have to take minimum recharge of more than 20% of the outstanding arrears.

g) The Petitioner shall make necessary provisions to provide friendly credit hours/ limit to the consumers, in order to ensure uninterrupted supply to the consumer in the event of expiry of the balance during non-working hours, i.e. night time or during holiday, so as to provide reasonable time to the consumer to procure the recharge voucher at the next possible working hours or working day. However, the charges for the electricity consumed between expiry of balance during non-working hours and subsequent recharge voucher shall be adjusted from the recharge voucher.

h) All the Prepaid meters will be provided with an alarm to indicate low credit.

i) As per the guiding principles and Section 47(5) of the Electricity Act, 2003, the Petitioner shall not charge any security deposit as is required in post-paid connections but price equivalent to the material cost, i.e. cost of meter and associated equipment's shall be charged as material security which shall be returned after adjusting for the depreciation at the time of permanent disconnection. The approved material security deposit (except for BPL domestic) for FY 2022-23 is Rs. 5000/- for single phase connection and Rs 10,000/- for three phase connection. BPL domestic consumers shall be exempted for payment of material security deposit.

j) The consumer shall be allowed only one transfer from postpaid to prepaid or otherwise in a financial year.

k) Voltage rebate/surcharge, low power factor surcharge and excess load penalty shall not be applicable for prepaid connections.

l) A rebate of 4% of Energy Charges for Domestic Category and 3% of Energy Charges for other categories shall be applicable as per tariff schedule for the consumers availing this scheme and the rebate shall only be applicable after installation and operationalization of Prepaid meters.

Provided that no rebate shall be applicable on (i) of Para 1 of RTS-8, i.e. Temporary Supply for Illumination/Public Address/ceremonies and festivities/ functions/temporary shops not exceeding 3 months.

Provided further that the fixed charge in respect of other domestic consumers [(1.2) of para 2 of the RTS -1] shall be Rs. 60/kW/month.

m) The solar water heater rebate shall be adjusted as follows:-

i. The rebate for first month of implementation of prepaid metering scheme shall be credited immediately on the first recharge. Thereafter, rebate shall be credited on monthly basis if recharge is done every month.

ii. In case recharge is not being done on monthly basis, then based on the capacity of Solar Water Heater installed by the consumer, solar water heater rebate would be credited for all the past months for which the rebate was due either at the time of recharge or when the consumer approaches UPCL.

6.1.3.6 Voltage Rebate

Some of the stakeholders have requested the Commission to either design the tariffs linked to Voltage wise Cost of Supply or provide the rebate for availing supply at higher voltages. Despite repeated directions from the Commission to get the study done on voltage wise cost of supply, the Petitioner till date has not submitted any report to the Commission on voltage wise cost of supply. The Commission agrees with the views of the stakeholders that in the absence of voltage wise cost of supply, some rebate should be provided to the consumers availing the supply at higher voltage. The Commission over the years have been approving the mechanism of voltage rebate/surcharge for availing supply at higher/lower voltages which is akin to determination of voltage wise tariffs. The existing voltage rebate/supply as approved by the Commission in its Order dated April 26, 2021 are as follows:

"

(i) For consumers having contracted load upto 75 kW/88 kVA - If the supply is given at voltage above 400 Volts and upto 11 kV, a rebate of 5% would be admissible on the Energy Charge.

(ii) For consumers having contracted load above 75 kW/88 kVA – In case the supply is given at 400 Volts, the consumer shall be required to pay an extra charge of 10% on the bill amount calculated at the Energy Charge.

(iii) For consumers having contracted load above 75 kW/88 kVA – In case of supply at 33 kV the consumer shall receive a rebate of 2.5% on the Energy Charge.

(iv) *For consumers having contracted load above 75 kW/88 kVA and receiving supply at 132 kV and above, the consumer shall receive a rebate of 7.5% on the Energy Charge.*

(v) *All voltages mentioned above are nominal rated voltages.*

(vi) *No rebate or surcharges would be applicable on consumers having pre-paid connections."*

The Commission, considering the requests of the stakeholders is of the opinion that since bulk of the consumers have taken supply at 33 kV has, accordingly, decided to increase the rebate from existing level of 2.5% to 3.5% for consumers having contracted load above 75 kW/88 kVA and availing supply at 33 kV. Accordingly, the revised voltage rebate/surcharge mechanism shall be as follows:

"

(i) *For consumers having contracted load upto 75 kW/88 kVA - If the supply is given at voltage above 400 Volts and upto 11 kV, a rebate of 5% would be admissible on the Energy Charge.*

(ii) *For consumers having contracted load above 75 kW/88 kVA – In case the supply is given at 400 Volts, the consumer shall be required to pay an extra charge of 10% on the bill amount calculated at the Energy Charge.*

(iii) *For consumers having contracted load above 75 kW/88 kVA – In case of supply at 33 kV the consumer shall receive a rebate of 3.5% on the Energy Charge.*

(iv) *For consumers having contracted load above 75 kW/88 kVA and receiving supply at 132 kV and above, the consumer shall receive a rebate of 7.5% on the Energy Charge.*

(v) *All voltages mentioned above are nominal rated voltages.*

(vi) *No rebate or surcharges would be applicable on consumers having pre-paid connections."*

6.1.3.7 *Consumer category for Electric Vehicle Charging Stations*

The Commission in the Tariff Order dated 18.04.2020 had introduced a new category for Electric Vehicle Charging Stations. In this regard, the Commission would like to clarify that all the category of consumers shall be allowed to charge their Electric Vehicle at their own premises and it shall not be considered as unauthorised activity under the Electricity Act, 2003, provided the load of EV does not exceed the connected/contracted load. For charging of batteries of E-Vehicles at the consumer's own premises, the tariff shall be the same as applicable for the relevant category of connection at such premises from which the E-Vehicle is being charged. However, consumers who wish to install electric vehicle charging station in their premises for exclusive purposes, will have to take a separate connection for EV Charging Station.

The consumers shall apply to UPCL in case there is an increase of connected /contracted load on account of EV charging in their premises. UPCL shall revise the contracted load of consumer as per guidelines specified in applicable Regulations. UPCL shall take utmost efforts to upgrade its system as per the requirements of load for EV charging.

6.1.4 *Treatment of Revenue Gap*

As concluded in Chapter 5 of the Order, the revenue at existing tariffs leaves a revenue gap of Rs. 195.92 Crore to meet the Net Revenue Requirement for FY 2022-23, post adjustment of the revenue surplus and gap determined after truing up of expenses and revenue based on the audited accounts for FY 2020-21.

The Commission in order to recover the gap has revised the tariffs for FY 2022-23. The approved tariff will be applicable from April 1, 2022 and will be effective till revised by the Commission.

6.1.5 *Cross Subsidy*

As per the provisions of Tariff Policy, the Regulatory Commission has to reduce the cross subsidies with respect to the cost of supply in a gradual manner. The Commission in its Tariff Order for FY 2020-21 had computed the cross subsidies for different category of subsidising consumers which were in accordance with the Tariff Policy.

The Commission has now revised the tariffs and has ensured that the cross subsidies have broadly reduced or maintained with respect to previous levels with few exceptions as discussed while discussing the cross subsidy levels at approved tariffs.

6.1.6 *Category-wise Tariff Design*

The Commission has designed the category-wise tariffs for full recovery of approved Net Revenue Requirement for FY 2022-23. The category-wise tariffs approved by the Commission are discussed below and are also shown in the Approved Rate Schedule placed at **Annexure-1**. These rates shall be effective from April 1, 2022 and shall continue to be applicable till further revised by the Commission.

6.1.7 *RTS-1: Domestic Tariff*

The Commission, while recognising the fact that BPL/lifeline consumers were one of the most economically weaker sections of the consumers, in its Tariff Order for FY 2003-04 had approved a tariff of Rs. 1.50/kWh for such consumers when the average cost of supply was Rs. 2.28/kWh. Considering the fact that the Tariff Policy permits that the tariffs for such BPL/lifeline consumers can be determined at 50% of the average cost of supply, the Commission in order to gradually reduce the cross subsidy and also to enable the licensee to recover some of its Fixed Cost, in its Tariff Order for FY 2011-12 dated May 24, 2011 had introduced a Fixed Charges of Rs. 5/connection/month which was further nominally increased every year.

As discussed earlier, the Commission for Domestic Category has approved the Fixed Charges on the basis of sanctioned load instead of Fixed charges on the basis of consumption. Accordingly, the fixed charges approved by the Commission are as follows:

- Upto 1 kW-Rs. 60/kW/Month.
- Above 1 kW and upto 4 kW-Rs. 70/kW/month.
- Above 4 kW-Rs. 80/kW/month.

As the overall tariff increase required for meeting the revenue requirement of UPCL for FY 2022-23 is marginal, the energy charges for BPL consumers has been increased from Rs. 1.61/kWh to Rs. 1.65/kWh.

The energy charges for the first slab, i.e. for consumption upto 100 units have been fixed at Rs 2.90/kWh. The energy charges for the second slab, i.e. for consumption between 101-200 units/month have been fixed as Rs. 4.20/kWh. The energy charges for the third slab, i.e. for consumption between 201-400 units/month have been fixed as Rs. 5.80/kWh and energy charges for the last slab have been fixed at Rs. 6.55/kWh.

For single point bulk supply connections, the energy charges have been increased to Rs. 5.40/kVAh from Rs. 5.15/kWh and fixed charges have been increased to Rs. 100/kVA/month from Rs. 95/kW/month.

A comparison of the tariff, i.e. existing, proposed by the Petitioner and that approved by the Commission, is given in the Table below:

Table 6.6: Tariff for Domestic Consumers

S. No.	Description	Existing Tariff		UPCL Proposed Tariff		Approved	
		Fixed Charge (Per Month)	Energy Charges	Fixed Charge (Per Month)	Energy Charges	Fixed Charge (Per Month	Energy Charges
	RTS-1: Domestic						
1.1	Life Line Consumers	Rs. 18/ Connection	Rs. 1.61/kWh	Rs. 18/ Connection	Rs. 1.61/kWh	Rs. 18/ Connection	Rs. 1.65/kWh
1.2	**Other Domestic Consumers**						
(i)	0-100 Units/Month	Rs. 60/ Connection	Rs. 2.80/kWh	Rs. 62/ Connection	Rs. 2.87/kWh	• Upto 1 kW-Rs. 60/kW/Month • Above 1 kW and upto 4 kW-Rs. 70/kW/month • Above 4 kW-Rs. 80/kW/month	Rs. 2.90/kWh
(ii)	101-200 Units/Month	Rs. 120/ Connection	Rs. 4.00/kWh	Rs. 126/ Connection	Rs. 4.22/kWh		Rs. 4.20/kWh
(iii)	201-400 Units/Month	Rs. 200/ Connection	Rs. 5.50/kWh	Rs. 215/ Connection	Rs. 5.92/kWh		Rs. 5. 80 /kWh
(iv)	Above 400 Units/Month	Rs. 300/ Connection	Rs. 6.25/kWh	Rs. 330/ Connection	Rs. 6.88/kWh		Rs. 6.55/kWh
2	Single point bulk supply	Rs. 95/kW	Rs. 5.15/kWh	Rs. 105/kW	Rs. 5.67/kWh	Rs. 100/kVA	Rs. 5.40/kVAh

6.1.8 *RTS 1-A: Concessional Snowbound Area Tariff*

Considering the overall tariff increase required for meeting the revenue requirement of UPCL for FY 2022-23 marginal tariff increase is approved for this category. A comparison of the tariff, i.e. existing, proposed by the Petitioner and that approved by the Commission, is given in the Table below:

Table 6.7: Concessional Tariff for Snowbound Areas

S. No.	Description	Existing Tariff		UPCL Proposed Tariff		Approved	
		Fixed Charge (Per Month)	Energy Charges	Fixed Charge (Per Month)	Energy Charges	Fixed Charge (Per Month)	Energy Charges
RTS-1A: Snowbound							
1.	Domestic	Rs. 18/ Connection	Rs. 1.61/kWh	Rs. 18/ Connection	Rs. 1.61/kWh	Rs. 18/ Connection	Rs. 1.65/kWh
2.	Non-Domestic upto 1 kW	Rs. 18/ Connection	Rs. 1.61/kWh	Rs. 18/ Connection	Rs. 1.61/kWh	Rs. 18/ Connection	Rs. 1.65/kWh
3.	Non-Domestic above 1 kW & upto 4 kW	Rs. 18/ Connection	Rs. 2.36/kWh	Rs. 18/ Connection	Rs. 2.36/kWh	Rs. 18/ Connection	Rs. 2.40/kWh
4.	Non-Domestic above 4 kW	Rs. 30/ Connection	Rs. 3.51/kWh	Rs. 30/ Connection	Rs. 3.51/kWh	Rs. 30/ Connection	Rs. 3.55/kWh

6.1.9 *RTS-2: Non-Domestic Tariff*

For Non-domestic consumers, the Commission has marginally increased the energy charges and fixed charges to enable the licensee to recover its fixed cost and revenue gap. The Commission has separately specified the tariff for concessional sub-category of educational institutions, hospitals and charitable institutions, which shall include:

- Government/Municipal Hospitals;
- Government/Government Aided Educational Institutions; and
- Charitable Institutions registered under the provisions of Income Tax Act, 1961 and whose income is exempted from tax under this Act.

The existing tariff, tariff proposed by the licensee and that approved by the Commission is given in Table below:

Table 6.8: Tariff for Non Domestic

S. No.	Description	Existing Tariff		UPCL Proposed Tariff		Approved	
		Fixed/ Charges (Per Month)	Energy Charges	Fixed/ Demand Charges (Per Month)	Energy Charges	Fixed/Demand Charges (Per Month)	Energy Charges
1	**Government, Educational Institutions and Hospitals etc.**						
1.1	Upto 25 kW	Rs. 75/ kW	Rs. 4.65/ kWh	Rs. 80/kW	Rs 4.93/kWh	Rs. 80/ kW	Rs. 4.75/ kWh
1.2	Above 25 kW	Rs. 85/ kVA	Rs. 4.40/ kVAh	Rs. 92/kVA	Rs 4.75 /kVAh	Rs. 90/ kVA	Rs. 4.50/ kVAh
2	**Other Non-Domestic Users**						
2.1	Upto 4 kW and consumption upto 50 units per month	Rs. 70 / kW	Rs. 4.70/ kWh	Rs 70 /kW	Rs. 4.70 /kWh	Rs. 75 / kW	Rs. 4.80/ kWh
2.2	Others upto 25kW not covered in 2.1 above	Rs. 90 / kW	Rs. 5.80/ kWh	Rs. 95 /kW	Rs. 6.15 /kWh	Rs. 95 / kW	Rs. 5.90/ kWh
2.3	Above 25 kW	Rs. 90 / kVA	Rs. 5.80/ kVAh	Rs. 96 /kVA	Rs. 6.21 /kVAh	Rs. 95 / kVA	Rs. 5.90/ kVAh
3	Single Point Bulk Supply above 75 kW	Rs. 90 / kVA	Rs. 5.75/ kVAh	Rs. 99/ kVA	Rs. 6.33 /kVAh	Rs. 110 / kVA	Rs. 6.00/ kVAh
4	Independent Advertisement Hoardings	Rs. 110/ kW	Rs. 6.40/kWh	Rs. 121/ kW	Rs 7.04 /kWh	Rs. 120/ kW	Rs. 6.65/kWh

6.1.10 *RTS-3: Government Public Utilities*

The existing tariff, tariff proposed by the licensee and that approved by the Commission is given in the Table below:

Table 6.9: Tariff for Government Public Utilities

Description	Existing Tariff		UPCL Proposed Tariff		Approved	
	Fixed/Demand Charges (Per Month)	Energy Charges	Fixed/Demand Charges (Per Month)	Energy Charges	Fixed/Demand Charges (Per Month)	Energy Charges
Urban (Metered)	Rs. 90/kVA	Rs. 5.80/ kVAh	Rs. 99/kVA	Rs. 6.38/ kVAh	Rs. 100/kVA	Rs. 6.05/ kVAh
Rural (Metered)	Rs. 80/kVA	Rs. 5.80/ kVAh	Rs. 86/kVA	Rs. 6.21/ kVAh	Rs. 90/kVA	Rs. 6.05/ kVAh

6.1.11 *RTS-4: Private Tube Wells/Pump Sets and Agriculture Allied Activities*

The Commission in order to gradually reduce the cross subsidy in this category has increased the energy charge from Rs. 2.08/kWh to Rs. 2.15/kWh for PTW consumers and to Rs. 2.85/kWh for Agriculture Allied Activities.

The existing tariff, tariff proposed by the licensee and that approved by the Commission are given in the Table below:

Table 6.10: Tariff for Private tube Wells/ Pump Sets

Category	Existing Tariff		UPCL Proposed Tariff		Approved	
	Fixed/ Demand Charges (Per Month)	Energy Charges	Fixed/ Demand Charges (Per Month)	Energy Charges	Fixed/ Demand Charges (Per Month)	Energy Charges
RTS-4: Private Tube-wells / Pumping sets						
Metered	Nil	Rs. 2.08/ kWh	Nil	Rs. 2.08/ kWh	Nil	Rs. 2.15/ kWh
RTS-: 4A: Agriculture Allied Activities						
Metered	Nil	Rs. 2.75/ kWh	Nil	Rs. 3.03/ kWh	Nil	Rs. 2.85/ kWh

6.1.12 *RTS-5: Industry*

The Commission while determining the tariff of HT and LT Industries has taken into consideration the average cost of supply and cross subsidy.

Further, as discussed above, the Commission has decided to change the peak hour rate as 30% higher than the normal hour rate applicable for highest slab, i.e. with load factor above 40% for all the HT industrial consumers and retain the off peak hour rebate as 20%. Further, consumers opting for continuous supply as per eligibility given in this Order shall have to pay 2.5% additional energy charges as continuous supply surcharge only on energy supply made by UPCL, i.e. the surcharge will not be applicable if power is sourced through open access.

The existing tariff, tariff proposed by the licensee and that approved by the Commission for LT Industry is given in the Table below:

Table 6.11: Tariff for LT Industry

Category	Existing Tariff		UPCL Proposed Tariff		Approved	
	Fixed Charges (Per Month)	Energy Charges	Fixed Charges (Per Month)	Energy Charges	Fixed Charges (Per Month)	Energy Charges
RTS-5: Industry						
LT Industry						
1. Contracted Load upto 25 kW	Rs. 155/ kW	Rs. 4.60/ kWh	Rs. 163/ kW	Rs. 4.83/ kWh	Rs. 165/ kW	Rs. 4.80/ kWh
2. Contracted Load more than 25 kW	Rs. 160/ kVA	Rs. 4.30/ kVAh	Rs. 168/ kVA	Rs. 4.52/ kVAh	Rs. 170/ kVA	Rs. 4.50/ kVAh

The existing tariff and tariff proposed by the licensee and that approved by the Commission for HT Industry is given in the Table below:

Table 6.12: Existing, Proposed and Approved Tariff for HT Industries

S. No.	Category	Load Factor	Existing Tariff		UPCL Proposed Tariff		Approved Tariff	
			Energy Charges (Rs./kVAh)	Fixed /Demand Charges (Rs./kVA)	Energy Charges (Rs./kVAh)	Fixed /Demand Charges (Rs./kVA)	Energy Charges (Rs./kVAh)	Fixed /Demand Charges (Rs./kVA)
1	**HT Industry having contracted load above 88kVA/75 kW (100 BHP)**							
1.1	Contracted Load up to 1000 kVA	Upto 40%	4.45	Rs. 340/kVA of the billable demand	4.70	Rs. 369/kVA of the billable demand	4.80	Rs. 360/kVA of the billable demand
		Above 40%	4.85		5.10		5.20	
1.2	Contracted Load More than 1000 kVA	Upto 40%	4.45	Rs. 410/kVA of the billable demand	4.70	Rs. 445/kVA of the billable demand	4.80	Rs. 430/kVA of the billable demand
		Above 40%	4.85		5.10		5.20	

6.1.13 *RTS-6: Mixed Load*

The Commission has increased the tariff for this category to reduce the level of cross subsidy. The existing tariff, tariff proposed by the licensee and that approved by the Commission is given in the Table below:

Table 6.13: Tariff for Mixed Load

Description	Existing Tariff		UPCL Proposed Tariff		Approved Tariff	
	Fixed / Demand Charges Per Month)	Energy Charges	Fixed / Demand Charges Per Month)	Energy Charges	Fixed / Demand Charges (Per Month)	Energy Charges
RTS-6: Mixed Load						
Mixed Load Single Point Bulk Supply above 75 kW including MES as deemed licensee	Rs. 110/kW	Rs. 5.45/kWh	Rs. 117/kW	Rs. 5.78/kWh	Rs. 120/kVA	Rs. 5.60/kVAh

6.1.14 *RTS-7: Railway Traction*

The existing tariff, tariff proposed by the licensee and that approved by the Commission is given in the Table below:

Table 6.14: Tariff for Railway Traction

Description	Existing Tariff		UPCL Proposed Tariff		Approved Tariff	
	Fixed / Demand Charges (Per Month)	Energy Charges	Fixed / Demand Charges (Per Month)	Energy Charges	Fixed / Demand Charges (Per Month)	Energy Charges
RTS-7: Railway Traction	Rs. 265/kVA	Rs. 4.70/ kVAh	Rs. 281/kVA	Rs. 4.98/ kVAh	Rs. 285/kVA	Rs. 4.90/ kVAh

6.1.15 *RTS-8: Electric Vehicle Charging Stations*

In order to promote Electric Vehicles in the State, the Commission has retained the tariff for this category at existing level. The tariff proposed by the licensee and that approved by the Commission is given in the Table below:

The existing tariff, tariff proposed by the licensee and that approved by the Commission is given in the Table below:

Table 6.15: Tariff for Electric Vehicle Charging Stations

Description	Existing Tariff		UPCL Proposed Tariff		Approved Tariff	
	Fixed / Demand Charges (Per Month)	Energy Charges	Fixed / Demand Charges (Per Month)	Energy Charges	Fixed / Demand Charges (Per Month)	Energy Charges
RTS-8: Electric Vehicle	--	Rs. 5.50/ kWh	--	Rs. 5.50/ kWh	--	Rs. 5.50/ kWh

6.2 Revenue for FY 2022-23

Considering the revised tariffs, the Commission has projected revenue at the approved tariffs from each category for FY 2022-23. The summary of category-wise projected revenue for FY 2022-23 is given in the following Table:

Table 6.16: Summary of Category Wise Projected Revenue at Approved Tariffs

S. No.	Category	Sales	Revenue	Average Billing Rate (ABR)
		MU	Rs. Crore	Rs./Unit
1.	RTS-1: Domestic	3929.36	1855.82	4.72
2.	RTS-2: Non Domestic	1398.46	955.38	6.83
3.	RTS-3: Govt. Public Utilities	848.03	570.60	6.73
4.	RTS-4: Private Tube Wells	254.25	55.81	2.19
5.	RTS-5: Industry			

Table 6.16: Summary of Category Wise Projected Revenue at Approved Tariffs

S. No.	Category	Sales	Revenue	Average Billing Rate (ABR)
		MU	Rs. Crore	Rs./Unit
	LT Industry	340.64	217.66	6.39
	HT Industry	6058.23	3895.88	6.43
6.	RTS-6: Mixed Load	183.76	111.69	6.08
7	RTS-7: Railway Traction	29.79	19.62	6.59
8	RTS 8 : EV Charging Stations	17.52	9.64	5.50
9.	Additional Sales (Efficiency improvement)	37.86	22.30	5.89
Total		**13097.90**	**7714.40**	**5.89**

The estimated revenue for FY 2022-23 at approved tariffs works out to Rs. 7714.40 Crore, as against the net ARR of Rs. 7709.01. Crore worked out after adjusting trued-up surplus/gaps of previous years leaving a surplus of Rs. 5.39 Crore with UPCL.

The Commission will consider the actual sales and revenues while carrying out the truing up for FY 2022-23.

6.3 Cross Subsidy

As discussed above, the Commission has designed the tariffs for various categories with an objective of gradually reducing the cross subsidy with respect to average cost of supply. The extent of category-wise cross-subsidy at approved tariffs computed at average cost of supply is given in the Table below:

Table 6.17: Cross Subsidy at Average Cost of Supply

Category	Approved Average Billing Rate (ABR)	Average Cost of Supply (ACoS)	ABR / ACoS	Cross Subsidy
	Rs./kWh	Rs./kWh	%	%
RTS-1: Domestic	4.72	5.89	80.2%	-19.8%
RTS-2: Non Domestic	6.83	5.89	115.9%	15.9%
RTS-3: Govt. Public Utilities	6.73	5.89	114.2%	14.2%
RTS-4: Private Tube Wells	2.19	5.89	37.3%	-62.7%
RTS-5: Industry				
LT Industry	6.39	5.89	108.5%	8.4%
HT Industry	6.43	5.89	109.2%	9.2%
RTS-6: Mixed Load	6.08	5.89	103.2%	3.2%
RTS-7: Railway Traction	6.59	5.89	111.8%	11.8%
RTS 8: EV Charging Stations	5.50	5.89	93.4%	-6.6%

The comparison of Cross Subsidy at approved tariffs with respect to the average cost of supply in Tariff Order for FY 2021-22 and as approved in this Tariff Order for FY 2022-23 is given below:

Table 6.18: Cross Subsidy at Approved Tariffs in FY 2021-22 and FY 2022-23

Category	Cross Subsidy at Approved Tariff for FY 2019-20	Cross Subsidy at Approved Tariff for FY 2020-21
RTS-1: Domestic	-19.7%	-19.8%
RTS-2: Non Domestic	15.2%	15.9%
RTS-3: Govt. Public Utilities	12.1%	14.2%
RTS-4: Private Tube Wells	-63.2%	-62.7%
RTS-5: Industry		
LT Industry	8.4%	8.4%
HT Industry	8.6%	9.2%
RTS-6: Mixed Load	1.9%	3.2%
RTS-7: Railway Traction	6.9%	11.8%

The Commission while designing the tariffs for FY 2022-23 has attempted to reduce the cross subsidies for most of the categories with respect to approved tariffs for FY 2021-22 and has ensured to bring the cross-subsidy levels within the range of + 20% as specified in the National Tariff Policy. The cross subsidy for some of the categories have marginally increased due to various tariff rationalisation measures approved by the Commission such as change in ToD hours, change in peak hours tariff, change in voltage rebate and reduction in continuous supply surcharge. The impact of some of these tariff rationalisation measures have not been considered while computing the revenue. Once the actual impact of these measures is available, the same shall be considered at the time of truing up.

Further, it can be seen from the Table above, cross-subsidies of all the subsidising consumers is within the range of 120% as required in the Tariff Policy.

Further, once the cross-subsidy level has been reduced to be within +20%, there is no mandate under the Act or Tariff Policy to reduce it further. The criteria of ± 20 % of the average cost of supply for all the categories including subsidised categories depends upon the consumption mix of the Licensee. However, in case of the Petitioner, the consumption mix is skewed towards subsidising categories having almost two third of total sales, while the consumption by subsidised categories is around one third of the total consumption. Therefore, in case of Petitioner, though the tariff for all the subsidising categories have been within 120% of the overall average cost of supply of the Petitioner, the average tariff for some of the subsidised categories is less than 80% of the overall average cost of supply of the Petitioner.

Hon'ble Appellate Tribunal of Electricity, in its Judgment dated February 28, 2012, in Appeal No. 159 of 2011 has expressed similar views. The relevant extract given in Para 16 of the Judgment is reproduced as under:

> *"... Provision of restricting cross subsidy to +/- 20% in Tariff Policy is applicable to areas where proportion of both the categories, subsidizing and subsidized, are comparable. The same yard stick cannot be applied in areas where consumer mix is highly biased in favour on one category."*

6.4 Open Access Charges

Uttarakhand Electricity Regulatory Commission (Terms and Conditions of Intra State Open Access) Regulations, 2015 inter-alia specify wheeling charges applicable on the customers seeking open access through distribution system, based on the category/nature of open access these customers come under in accordance with the Regulations.

In this regard, Regulation 20(2) specifies as under:

> *"Wheeling charges payable to distribution licensee, by an open access customer for usage of its system shall be as determined as under:*
>
> *Wheeling Charges = (ARR–PPC–TC) /(PLSD X365) (Rs./MW/Day)*
>
> *Where,*
>
> *ARR=Annual Revenue Requirement of the distribution licensee for the relevant year*
>
> *PPC= Total Power Purchase Cost of distribution licensee for the relevant year*
>
> *TC = Total transmission charges paid by distribution licensee for State and Inter-State transmission system for the relevant year*
>
> *PLSD= Total Peak load served by the concerned distribution system for the previous year*
>
> *Provided where Open Access is allowed up to contracted load, embedded open access consumer shall pay wheeling charges as determined by the Commission in the following manner:*
>
> *WC Embedded consumer = WC – [FC*0.85*12*1000/365] (in Rs./MW/day)*
>
> *Where,*

WC Embedded consumer = Net wheeling charges for embedded consumers

WC= Wheeling charges as determined by the Commission in accordance with the methodology specified in Regulation 20(2) contained in Chapter 5 of these regulations.

FC= Fixed/demand charges in Rs/kVA/month as per rate schedule approved in the Tariff Order for the relevant year. For the purpose of conversion of kVA into kW power factor of 0.85 has been taken.

Note: In case Wheeling Charges for Embedded consumer worked out as above becomes negative, such charge shall be zero.

Provided that wheeling charges shall be payable on the basis of Approved Capacity.

Provided where open access is allowed beyond the contracted load, embedded open access consumer shall pay wheeling charges for the excess load as determined by the Commission in the following manner:

WC For excess load allowed= (ARR–PPC–TC) /(PLSD X365) (Rs./MW/Day)"

Thus, as can be seen from the above reading of the Regulations wheeling charges for the open access consumers shall be determined as under:

Wheeling Charges = (ARR–PPC–TC) /(PLSD X365) (Rs./MW/Day).

ARR as approved by the Commission in the Table 5.27 is Rs. 7987.21 Crore (excluding NTI & truing up impact of FY 2019-20) and after excluding the power purchase cost and Transmission Charges, the net amount works out to Rs. 1305.01 Crore.

The PLSD during FY 2020-21 is 2468 MW.

Hence, in accordance with the methodology provided in the aforesaid Regulations, the wheeling charges payable by customers seeking open access for FY 2022-23 (applicable upto 31st March, 2023) shall be:

Table 6.19: Wheeling Charges approved for FY 2022-23

Description	Rs./MW/day
Wheeling Charges	**14,487/-**

"Embedded open access consumers" who have been allowed open access up to the contracted load shall not pay the wheeling charge as above who shall otherwise pay net wheeling charges calculated in accordance with the methodology specified in the regulations and the same works out to Rs. 2470/MW/day for HT industry consumers having contracted load above 1000 kVA and Rs. 4427/MW/day for HT industry consumers having contracted load upto 1000 kVA. Non-Domestic consumers shall pay wheeling charges of Rs. 11832/MW/day. Moreover, "embedded open access consumers" who have been allowed open access beyond the contracted load shall pay wheeling charges for the excess load equal to Rs. 14,487/MW/day. However, where a dedicated distribution system for open access has been constructed for exclusive use of an open access customer, the wheeling charges for such dedicated system shall be worked out by the distribution licensee for its respective system and shall get it approved by the Commission and will be borne entirely by such open access customer till such time the surplus capacity is allotted and used by other open access customers, where after, the cost of the above system will be shared on pro-rata basis depending upon open access capacity allotted to them. Provided that wheeling charges shall not be levied on the open access customers connected to the transmission system at 132 kV and above voltage levels. The distribution losses applicable to open access customers for FY 2022-23 shall be the pooled average system distribution losses, i.e. 13.50% considered in this Order. Cross subsidy surcharge applicable, in accordance with the Regulations, to open access customers for FY 2022-23 have been determined as Rs. 0.54/kWh for HT industrial consumers and Rs. 0.94/kWh for non-domestic consumers.

The Petitioner is hereby directed that the wheeling charges and cross subsidy surcharge recovered from open access customers shall be shown separately under the separate head of income in its ARR/Tariff filings.

7. Review of Commercial Performance of UPCL

7.1 General

Uttarakhand, the 27th State of India was created on 09.11.2000 as the 10th Himalayan State of the country blessed with abundant natural resources with an approx. 53,483 sq. km area and presently having a population of approximately 117.00 Lakh. The Electricity Distribution Network is managed by Uttarakhand Power Corporation Limited (UPCL) the sole distribution licensee in the State. UPCL had been entrusted to cater to the Transmission & Distribution Sector inherited after the de-merger from UPPCL (erstwhile UPSEB) since 01.04.2001. The Electricity Act, 2003 mandated the separation of Transmission functions under Power Sector Reforms. Consequently, on 01.06.2004, the Power Transmission Corporation Limited (PTCUL) was formed to maintain & operate EHV Transmission lines & substations in the State.

In Uttarakhand, UPCL is the sole power distribution utility in the State to cater the sub–transmission & distribution network which includes substations & distribution lines in 13 districts of Uttarakhand namely Dehradun, Pauri, Tehri, Uttarkashi, Rudraprayag, Chamoli, Haridwar, Pithoragarh, Bageshwar, Almora, Nainital, Champawat, & Udhamsingh Nagar. UPCL vide its letter dated 29.01.2021 & 21.01.2022 had submitted the details of Substations & Lines maintained by them as on 31.12.2020 and 31.12.2021 respectively. UPCL vide its submission dated 21.01.2022 had also submitted the revised capacity of 11/0.415 kV S/s in Haridwar Zone as 33.089 MVA which was submitted earlier as 320.89 MVA capacity. Further, UPCL vide its letter dated 26.03.2022 had again submitted the revised details of Substations & Lines maintained by them as on 31.12.2020 and 31.12.2021 respectively:

S.N.	District	Particulars	Earlier Submission	Revised Submission
Revision in the details of Substations & Lines maintained by UPCL as on 31.12.2020				
1	Almora	11 kV Line (in km)	4872.26	4382.89
2	Tehri	11/0.4 kV Substation (in MVA)	153.23	156.42
3	Haridwar	11/0.4 kV Substation (in MVA)	1441.10	1152.30
Revision in the details of Substations & Lines maintained by UPCL as on 31.12.2021				
4	Chamoli	33/11 kV Substation (in MVA)	116	119
5	Rudraprayag	33/11 kV Substation (in MVA)	13	10
6	Pihoragarh	33/11 kV Substation (in MVA)	166	170

The Commission cautions the licensee to submit the correct information/figures/data before the Commission within the stipulated timeframe after thorough check by the concerned officers of the Petitioner and, accordingly, the practices of furnishing the unvalidated/incorrect information before the Commission should be strictly avoided, and this should not be repeated in future else appropriate action under the Act/Rules/Regulations would be initiated.

The updated details of the Substations maintained by UPCL as on 31.12.2020 & 31.12.2021 are given below in Table 6.1 & 6.2.

Table 7.1: Detail of Substations (S/s) maintained by UPCL as on 31.12.2020

S.No.	Name of District	#66/11 kV S/s			33/11 kV S/s				11/0.415 kV S/s
		Nos.	No. of Transformers	Total MVA capacity	Nos.	No. of Transformers	Total MVA capacity	Nos.	Total MVA capacity
Garhwal Zone									
1	Dehradun				62	123	1056.50	8420	956.48
2	Uttarkhashi				12	22	96.15	1808	84.33
3	Pauri				31	51	235.00	6008	275.97
4	Tehri				15	28	177.00	3946	156.42
5	Chamoli	3	5	38	16	23	116.00	2163	85.25
6	Rudraprayag				7	8	51.00	1806	59.97
Total Garhwal Zone		**3**	**5**	**38**	**143**	**255**	**1731.65**	**24151**	**1618.42**
Haridwar Zone									
7	**Haridwar**	**0**	**0**	**0**	**63**	**132**	**1255.00**	**19611**	**1152.30**
Kumaon Zone									
8	Nainital				30	53	397	6180	563.02
9	U.S. Nagar (Kashipur, Bazpur, Jaspur)				22	48	409.5	7436	412.27
10	Almora				26	45	163.5	4315	158.31
11	Bageshwar				9	13	47.5	1742	56.66
Total Kumaon Zone		**0**	**0**	**0**	**87**	**159**	**1017.5**	**19673**	**1190.26**
Rudrapur Zone									
12	U.S. Nagar (Rudrapur, Sitarganj)				33	69	636	9954	599.94
13	Pithoragarh				19	32	153	3615	124.84
14	Champawat				7	11	47	1575	66.1
Total Rudrapur Zone		**0**	**0**	**0**	**59**	**112**	**836**	**15144**	**790.88**
Total UPCL		**3**	**5**	**38**	**352**	**658**	**4840.15**	**78579**	**4751.86**

*As per the Commission's Order dated 10.04.2019, the complete 66 kV network has been handed over by UPCL to PTCUL.*

Table 7.2: Detail of Substations (S/s) maintained by UPCL as on 31.12.2021

S.No.	Name of District	33/11 kV S/s			11/0.415 kV S/s	
		Nos.	No. of Transformers	Total MVA capacity	Nos.	Total MVA capacity
Garhwal Zone						
1	Dehradun	64	127	1102.00	8910	1014.54
2	Uttarkhashi	13	23	101.30	1898	85.37
3	Pauri	34	58	266.00	6057	282.34
4	Tehri	17	32	194.00	3972	158.72
5	Chamoli	16	24	119.00	2179	88.17
6	Rudraprayag	8	10	57.00	1822	62.16
Total Garhwal Zone		**152**	**274**	**1839.3**	**24838**	**1691.30**
Haridwar Zone						
7	**Haridwar**	**68**	**142**	**1362.00**	**20745**	**1221.24**
Kumaon Zone						
8	Nainital	31	55	419.50	6316	583.20
9	U.S. Nagar (Kashipur, Bazpur Jaspur)	22	48	409.50	7732	423.67
10	Almora	28	49	187.00	4345	159.98
11	Bageshwar	9	13	47.50	1809	59.23
Total Kumaon Zone		**90**	**165**	**1063.50**	**20202**	**1226.08**
Rudrapur Zone						
12	U.S. Nagar (Rudrapur-1, Rudrapur-2, Sitarganj & Khatima)	35	73	681.00	10463	628.04
13	Pithoragarh	20	35	170.00	3744	128.44
14	Champawat	7	11	59.00	1587	67.28
Total Rudrapur Zone		**62**	**119**	**910.00**	**15794**	**823.76**
Total UPCL		**372**	**700**	**5174.80**	**81579**	**4962.38**

With regard to transfer of assets pertaining to 66 kV Substation and Lines from UPCL to PTCUL, the Commission at Para 16 of its Order dated 10.04.2019 had directed the distribution licensees to transfer following 66 kV S/s and lines being maintained by it to PTCUL by 31.12.2021:-

Table 7.3: 66 kV Substation under Operation

Sl. No.	Name of 66 kV S/s	Capacity	Remark
1	66/33 kV S/s Karanprayag	7.5+3+5=15.5 MVA	66/33 kV network shall be transferred to transmission licensee. However, 33/11 kV S/s of 1x5 MVA shall remain with distribution licensee.
2	66/33 kV S/s Kothiyalsain	1x7.5 MVA	66/33 kV network shall be transferred to transmission licensee. However, 2x5 MVA, 33/11 kV S/s to remain with distribution licensee.
3	66/33 kV S/s Marwari	1x15 MVA	66/33 kV network shall be transferred to transmission licensee. However, 2x5 MVA, 33/11 kV S/s to remain with distribution licensee.
4	66/33 kV S/s Manglore	2x15 MVA	66/33 kV network shall be transferred to transmission licensee.

Table 7.4: 66 kV Line under Operation

Sl. No.	Name of 66 kV Line	Length/Conductor Details	Remark
1	66 kV Srinagar-Joshimath line	121 Km./Dog	Shall be transferred to transmission licensee.

Accordingly, PTCUL vide its letter dated 01.01.2022 submitted that the assets have been taken over by PTCUL in December, 2021.

Therefore, now the entire 66 kV network being maintained by UPCL has been transferred to PTCUL in accordance with the aforesaid Commission's Order dated 10.04.2019.

Further, on examination of the details of Substations maintained by UPCL as on 31.12.2020 vis-a-vis on 31.12.2019 and as on 31.12.2021 vis-a-vis 31.12.2020, it has been observed that UPCL was able to increase its total transformation/Substation capacity by 420 MVA & 545 MVA respectively in a year as detailed below:-

Table 7.5: Increase in Substation Capacity (in MVA) maintained by UPCL

S/s details	S/s Capacity as on 31.12.2019	S/s Capacity as on 31.12.2020	S/s Capacity as on 31.12.2021	Net Increase in S/s Capacity from 31.12.2019 to 31.12.2020	Net Increase in S/s Capacity from 31.12.2020 to 31.12.2021
33 KV	4644	4840	5175	197	335
11 KV	4529	4752	4962	223	211
Total	9172	9592	10137	420	545

As per the submission of UPCL vide its letter dated 29.01.2021, 21.01.2022 and 26.03.2022, the details of the Lines maintained by UPCL as on 31.12.2020 & 31.12.2021 are given below in Table 6.6:-

Table 7.6: Detail of Lines maintained by UPCL

S.N.	Name of District	# 66 kV Line (In Km.)		33 kV Line (In Km.)		11 kV Line (In Km.)		LT Line (In Km.)	
		As on 31.12.2020	*As on 31.12.2021*	*As on 31.12.2020*	*As on 31.12.2021*	*As on 31.12.2020*	*As on 31.12.2021*	*As on 31.12.2020*	*As on 31.12.2021*
Garhwal Zone									
1	Dehradun	0	0	768.24	789.01	4749.01	4775.81	11659.44	11806.35
2	Uttarkhashi	0	0	303.30	303.30	2169.52	2230.10	2814.05	3153.44
3	Pauri	0	0	662.47	695.17	5375.15	5441.45	8728.98	8860.67
4	Tehri	0	0	364.40	405.90	4255.01	4302.93	6644.07	6684.25
5	Chamoli	121	0	335.34	335.34	2417.82	2434.05	3180.00	3303.21
6	Rudraprayag	0	0	145.19	145.19	1265.27	1276.32	1793.27	1806.20
Total Garhwal Zone		**121**	**0**	**2578.94**	**2673.91**	**20231.78**	**20460.66**	**34819.81**	**35614.12**
Haridwar Zone									
7	**Haridwar**	**0**	**0**	**672.83**	**689.76**	**4905.079**	**5368.12**	**6607.83**	**6678.69**
Kumaon Zone									
8	Nainital	0	0	418.46	435.59	3011.92	3050.03	4794.19	4885.40
9	U.S.Nagar (Kashipur, Bazpur Jaspur)	0	0	283.17	310.18	1864.95	2300.03	1896.05	2115.65
10	Almora	0	0	545.65	545.65	4382.89	4889.82	7396.85	7426.02
11	Bageshwar	0	0	186.58	186.58	1675.14	1725.02	2215.27	2325.73
Total Kumaon Zone		**0**	**0**	**1433.86**	**1478.00**	**10934.90**	**11964.90**	**16302.36**	**16752.80**
Rudrapur Zone									
12	U.S. Nagar (Rudrapur,	0	0	435.00	480.53	2843.49	2900.67	4092.02	4230.711

	Sitarganj)								
13	Pithoragarh	68.50	0	315.17	333.17	3195.93	3274.24	3827.86	3919.11
14	Champawat	0	0	141.00	141.00	1758.14	1760.07	2382.59	2748.46
Total Rudrapur Zone		**68.50**	**0**	**891.17**	**954.70**	**7797.56**	**7934.98**	**10302.47**	**10898.28**
Total UPCL		**190.10**	**0**	**5576.80**	**5796.37**	**43869.33**	**45728.66**	**68032.47**	**69943.89**

As per the Commission's Order dated 10.04.2019, the complete 66 kV network has been handed over by UPCL to PTCUL by 31.12.2021.

Further, on examination of the details of Lines maintained by UPCL as on 31.12.2020 vis-a-vis on 31.12.2019 and as on 31.12.2021 vis-a-vis 31.12.2020, it has been observed that total Line length has increased by 4162 km. & 3990 km. respectively in a year as detailed below:-

Table 7.7: Increase in Line Length (in Km) maintained by UPCL

Line Length details	Line Lengths as on 31.12.2019	Line Lengths as on 31.12.2020	Line Lengths as on 31.12.2021	Net Increase in Line Lengths from 31.12.2019 to 31.12.2020	Net Increase in Line Lengths from 31.12.2020 to 31.12.2021
33 kV	5425	5577	5796	151	220
11 kV	42483	43869	45729	1386	1859
LT	65408	68032	69944	2625	1911
Total	**113316**	**117479**	**121469**	**4162**	**3990**

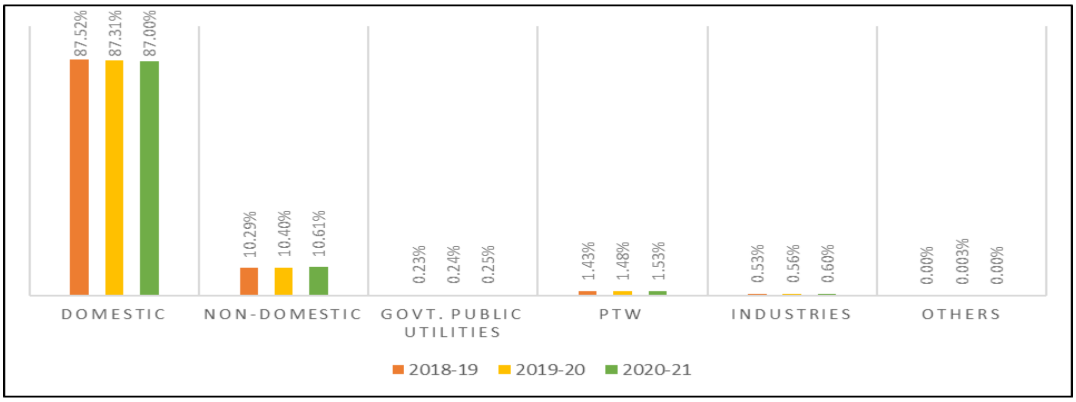
The Distribution network of UPCL as on 31.12.2021 contains four Zones namely Garhwal, Haridwar, Kumaon & Rudrapur having total twelve Circles containing 44 Divisions. The new Division which has been formed in January, 2020 is Rudrapur-II. The State has a distinct advantage over other comparable States as a small number of consumers consume major share of power for which a Key Consumer Cell (KCC) has been constituted. Hence, a large portion of revenue of the Petitioner comes from these KCC consumers.

The Consumer Mix, Consumption pattern, Connected Load pattern & Revenue pattern for FY 2018-19, FY 2019-20 & FY 2020-21 are elaborated below:

7.1.1 *Consumer Mix during FY 2018-19, FY 2019-20 & FY 2020-21*

As per the CS-3/CS-4 report of UPCL, there were approximately 24.27 Lakh, 25.38 Lakh & 26.70 Lakh consumers in March 2019, March 2020 & March 2021 respectively in the State. Thus, there was an addition of 1.10 Lakh & 1.23 Lakh consumers during FY 2019-20 & FY 2020-21 respectively. The following Chart depicts the consumer mix in the State during FY 2018-19, FY 2019-20 & FY 2020-21.

CHART 1: Consumer Mix during FY 2018-19, 2019-20 & 2020-21



Out of the total approximately 24.27 Lakh consumers during FY 2018-19, there were 87.52%-Domestic consumers, 10.29%-Non-Domestic consumers and only 0.53% consumers of the Industrial category. It is seen that these industrial (HT+LT Industries) consumers accounted for around 56.36% of the total consumption of the State and contribute to about 61.69% of Petitioner's revenue.

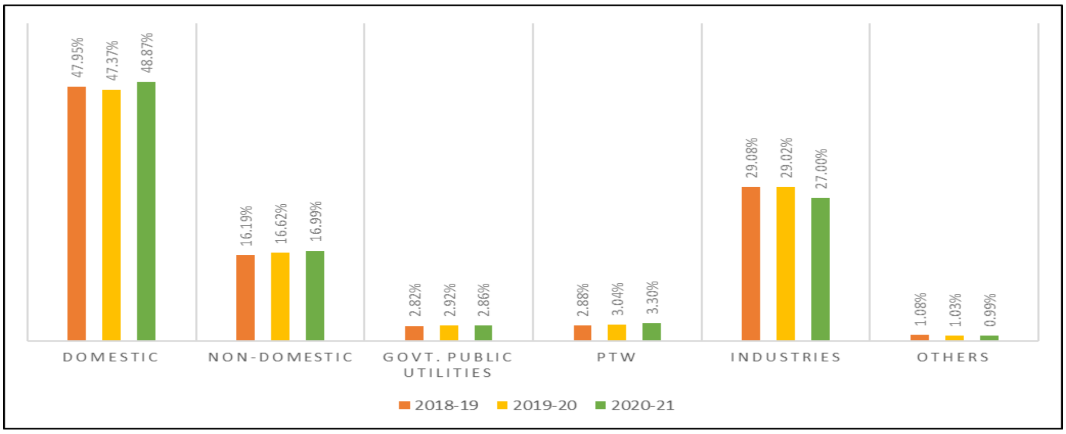
Out of the total approximately 25.38 Lakh consumers during FY 2019-20, there were 87.31%-Domestic consumers, 10.40%-Non-Domestic consumers and only 0.56% consumers of the Industrial category. The total consumers increase during FY 2019-20 vis-a-vis FY 2018-19 were 1,10,434. Out of this total consumer addition, the consumers in domestic & Non-domestic category increased by 91,492 & 14,056 respectively. During FY 2019-20, the consumers in Industrial category increased by 1440 vis-a-vis that in FY 2018-19.

Out of the total approximately 26.70 Lakh consumers during FY 2020-21, there were 87.00%-Domestic consumers, 10.61%-Non-Domestic consumers and only 0.60% consumers of the Industrial category. During FY 2020-21, the Industrial consumers increased by 1815 (12.70%) against overall consumers addition of approximately 1.32 Lakh (5.22%) vis-a-vis that in FY 2019-20. It has been observed that these industrial (HT+LT Industries) consumers accounted for around 50.41% of the total consumption of the State and contribute to about 56.65% of the Petitioner's revenue.

7.1.2 *Consumer's Contracted/Connected Load Pattern during FY 2018-19, FY 2019-20 & FY 2020-21*

The total Contracted/Connected load in the State during FY 2018-19, FY 2019-20 & FY 2020-21 were 6532.99 MW, 6948.03 MW & 7459.89 MW respectively. The following Chart depicts the category-wise Contracted/Connected load in the State during FY 2018-19, FY 2019-20 & FY 2020-21.

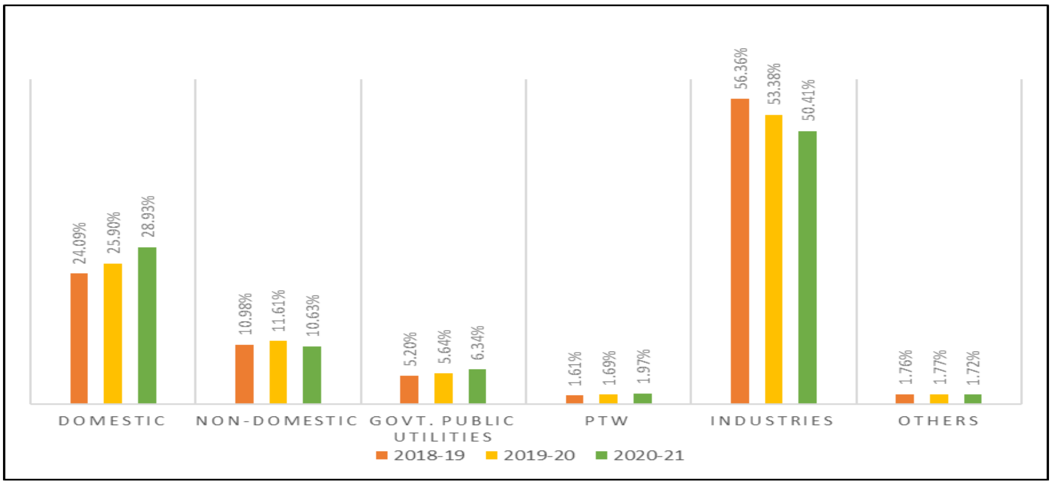
CHART 2: Consumer's Contracted/Connected Load Pattern during FY 2018-19, 2019-20 & 2020-21



It has been observed that Domestic category constitute the major share followed by the Industrial category. The total Contracted/Connected load of Industries in FY 2019-20 was 2016.57 MW which reduced to 2014.00 MW in FY 2020-21 resulting in the fall of 0.13% of Industrial's Contracted/ Connected load. The Contracted/Connected load mix of Industries also reduced from 29.02% during FY 2019-20 to 27.00% in FY 2020-21. Some of the major reasons behind the reduction in Contracted/Connected load of Industries in FY 2020-21 were Covid-19 pandemic, economic recession, solar power plant installation, power trading through Open Access etc.

7.1.3 *Consumption Pattern during FY 2018-19, FY 2019-20 & FY 2020-21*

CHART 3: Consumption Pattern during FY 2018-19, 2019-20 & 2020-21



The total energy consumption in FY 2018-19, FY 2019-20 & FY 2020-21 was 11826.69 MU, 12021.35 MU & 11432.59 MU respectively. In FY 2018-19, the energy consumption of Domestic, Non-domestic & Industrial consumers were 24.09%, 10.98% & 56.36% respectively. The energy consumption of Domestic, Non-domestic, Industrial consumers in FY 2019-20 & FY 2020-21 were 25.90%, 11.61%, 53.38% & 28.93%, 10.63%, 50.41% respectively.

On comparing the energy consumption of Industries during FY 2018-19, FY 2019-20 & FY 2020-21, it has been observed that energy consumption of Industries in FY 2018-19 was 6665.69 MU which reduced by 248.52 MU (3.73%) to 6417.17 MU energy consumption in FY 2019-20. In FY 2020-21, the energy consumption of Industries further reduced by 654.14 MU (10.19%) vis-a-vis FY 2019-20 to 5763.04 MU energy consumption in FY 2020-21. The energy consumption of Non-domestic category consumers also reduced by approximately 181 MU (12.96%) in FY 2020-21 vis-a-vis FY 2019-20.

The operation of the industries was badly affected due to the imposition of national level lockdown during Covid-19 pandemic. The annual operating hours of the industries had reduced in FY 2020-21 thus, leading to reduction in their energy consumption.

Earlier, the quantum of power traded through exchanges (Open Access) by the embedded Open Access consumers was increasing on year on year basis upto FY 2017-18. However, in FY 2018-19 the quantum power traded through exchanges by the embedded open access consumers had decreased vis-a-vis FY 2017-18 level, which further increased in FY 2019-20 & FY 2020-21. One of the major reason behind decrease in the energy consumption of the Industries in FY 2019-20 vis-a-vis FY 2018-19 and FY 2020-21 vis-a-vis 2019-20 was due to increase in the quantum power traded through exchanges by the embedded open access consumers. With regard to the decrease in energy consumption of Industrial consumers, the Commission observed that as industries are subsidising consumers and any reduction in revenue from industries would affect the commercial viability of distribution business, therefore, the Petitioner should ensure the quality and reliability of power supply to its consumers otherwise the consumers would be utilising the option of Open Access for meeting their demand at market rates from the Power Exchanges.

However, in FY 2021-22 (upto February 2022) the quantum power traded through open access by the consumers has decreased drastically vis-a-vis FY 2020-21 level probable reasons for such decline could be impact of Covid-19 pandemic, installation of solar power projects by the industries, regulatory changes w.r.t. Renewable Energy Certificates, High Inter State transaction charges etc. The details of quantum of power traded through Open Access in last eight years are given in the Table below:

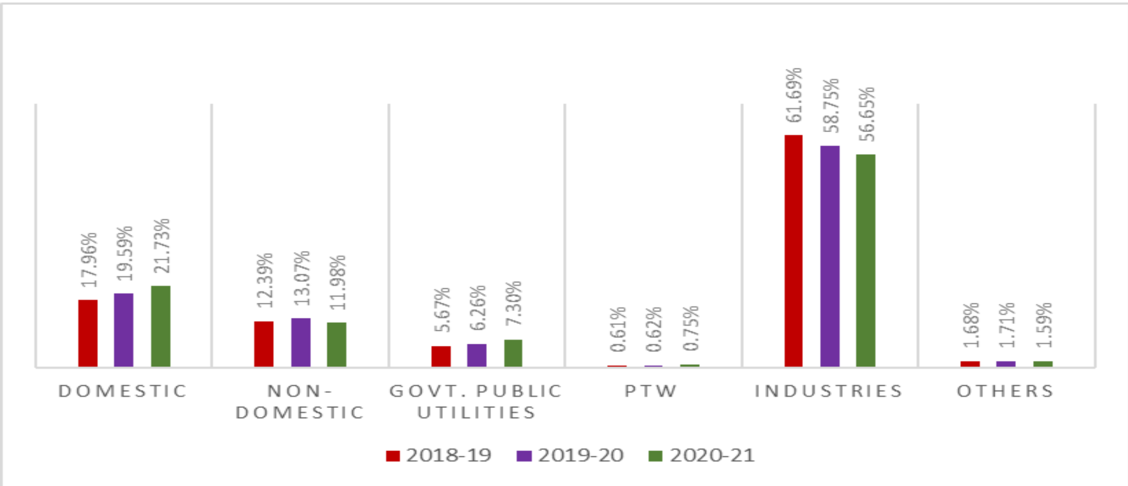
Table 7.8: Quantum of Power Traded through Open Access (at NR periphery)

Year	Quantum (MU)
FY 2014-15	181.37
FY 2015-16	274.52
FY 2016-17	385.81
FY 2017-18	440.37
FY 2018-19	249.66
FY 2019-20	275.45
FY 2020-21	370.12
FY 2021-22 (upto Feb, 2022)	61.65

7.1.4 *Revenue Pattern during FY 2018-19, FY 2019-20 & FY 2020-21*

The total Revenue assessed in the State during FY 2018-19, FY 2019-20 & FY 2020-21 were Rs. 655423.77 Lakh, Rs. 714458.71 Lakh & Rs. 683957.66 Lakh respectively. The following Chart depicts the category-wise Revenue Assessed in the State during FY 2018-19, FY 2019-20 & FY 2020-21.

CHART 4: Revenue Assessed during FY 2018-19, 2019-20 & 2020-21



With regard to the revenue assessed from sale of energy during FY 2018-19, the contribution of Industrial consumers was 61.69% [HT Industrial consumers was 58.83%, LT industrial consumers was 2.86%] whereas Domestic consumers and Non-Domestic consumers were contributing around 17.96% & 12.39% respectively.

With regard to the revenue assessed from sale of energy during FY 2019-20, the contribution of Industrial consumers was 58.75% [HT Industrial consumers was 55.83%, LT industrial consumers was 2.93%] whereas Domestic consumers and Non-Domestic consumers were contributing around 19.59% & 13.07% respectively.

With regard to the revenue assessed from sale of energy during FY 2020-21, the contribution of Industrial consumers was 56.65% [HT Industrial consumers was 53.60%, LT industrial consumers was 3.06%] whereas Domestic consumers and Non-Domestic consumers were contributing around 21.73% & 11.98% respectively.

On comparing the revenue assessed pattern of FY 2018-19, FY 2019-20 and FY 2020-21, it is noticed that the percentage revenue share of domestic consumers is increasing, however, the revenue share of Industrial Consumers is decreasing on year on year basis. The revenue assessed for Non-domestic consumers has also decreased in FY 2020-21 when compared with FY 2019-20 level. It has been observed that the total revenue assessed for Non-domestic and Industrial consumers in FY 2019-20 were Rs 93380.45 lakh and Rs 419749.80 lakh which were reduced by 12.24 % and 7.69% in FY 2020-21, while the total revenue assessed for domestic consumers were Rs. 117524.63 lakh in FY 2018-19, Rs. 139931.70 lakh in FY 2019-20 & Rs. 148596.58 lakh in FY 2020-21. This implies that the revenue assessed of subsidized consumers is increasing and the revenue assessed of subsidizing consumers is decreasing. This is very alarming for UPCL as its major revenue comes from subsidizing consumers, i.e. Industrial consumers and non-domestic consumers. UPCL needs to facilitate their best services to industries and non-domestic consumers and ensure that the revenue assessed of the subsidizing consumers would not decrease.

7.2 Commission's Analysis and Directions on Commercial Performances

The Commission has been monitoring & reviewing the performance of the Petitioner based on the information/reports submitted by it. Infact, higher distribution losses in distribution system are detrimental to financial and commercial viability of the Petitioner. Therefore, analysis of Petitioner's performance especially with respect to metering, billing and revenue collection is vital with the focus on reducing the Aggregate Technical and Commercial (AT&C) losses of the Petitioner. The Commission from its very first Tariff Order has been issuing various directions/Orders in this regard. However, the Petitioner has not been complying with the directions fully. The Commission had, therefore, decided to monitor the commercial performance of the Petitioner in a more structured manner on a monthly basis and, accordingly, various formats were issued to the Petitioner vide the Commission's letter No. 284 dated 17.05.2012 with the direction to submit the above information in these Formats regularly for each month by 15th day of the next month.

Despite, the specific directions issued by the Commission in its previous Tariff Orders, the Petitioner had been found wanting in submitting the periodical reports timely and also in accordance with the prescribed formats.

Considering the fact that the Petitioner had 35 number of Distribution Divisions in the State at that period of time, the Commission felt the need to monitor UPCL on Distribution Division basis and to quantify the improvement on month on month basis of any of the performance indicators, it would be necessary that Division-wise targets on each parameter be provided by the licensee which would make the whole monitoring process more meaningful. Hence, the Commission vide its letter No. 1622 dated 27.11.2014 issued following revised Commercial Performance Monitoring formats directing UPCL to submit information on these formats in hard as well as in soft copy (MS-excel file in CD) on regular basis latest by 25th day of the next month from January, 2015 onwards.

Table 7.9: Revised Formats prescribed by the Commission vide letter dated 27.11.2014

S. No.	Description	Format
1.	No. of Consumers	1
2.	Quarterly Targets of NA/NR, IDF/ADF/RDF	2
3.	Status of Not Accessible (NA) Consumers (in Percentage)	2(A)
4.	Status of Not Read (NR) Consumers (in Percentage)	2(B)
5.	Status of Identified Defective Meters (IDF) (in Percentage)	2(C)
6.	Status of Appeared Defective Meters (ADF) (in Percentage)	2(D)
7.	Status of Reading Defective Meters (RDF) (in Percentage)	2(E)
8.	Quarterly Targets of IDF Meters/Mechanical Meters/Un-metered Consumers/Ghost Consumers	3
9.	Status of Identified Defective Meters (IDF)	3(A)
10.	Status of Un-metered Consumers	3(B)
11.	Status of Mechanical Meters	3(C)
12.	Status of Ghost Consumers	3(D)
13.	Status of Not Billed (NB)/Stop Billed (SB) Cases	4
14.	Status of Outstanding Arrears	5
15.	MRI Status of KCC Consumers	6
16.	Status of Revenue realisation per unit of Energy Sold	7
17.	Status of AT&C Losses of UPCL	8

However, the Commission observed that the Distribution Licensee had been inconsistent in furnishing the Commercial Performance Monitoring reports on the aforesaid formats in hard as well as in soft copy (MS-excel file in CD) on regular basis in accordance with the directions, i.e. latest by 25th day of the next month.

As per the request of UPCL for relaxing the submission of CPM reports during the Covid-19 pandemic period, the Commission vide its letter dated 28.07.2021 had relaxed and allowed UPCL waiver in submitting the monthly CPM reports for the period 01.03.2020 to 31.08.2021. Despite relaxation provided to UPCL with regard to CPM reports till 31.08.2021, UPCL has been inconsistent in furnishing the CPM reports from September, 2021 onwards within the stipulated time frame. Also, on examination of the submitted CPM reports, it has been observed that either some of the informations were not being submitted in the desired format or had several data gaps/deficiencies. The Commission vide its letter dated 30.11.2021, 06.01.2022 & 17.02.2022 directed UPCL to furnish the CPM reports, informations against the identified data gaps/deficiencies etc. Further, the Commission had observed that web-site link of UPCL pertaining to commercial diary was not working for several days in the month of December, 2021 and, accordingly, UPCL was directed vide Commission's letter dated 06.12.2021 to ensure the availability/uploading of monthly commercial diary data on their web-site & updation/maintenance of the same from time to time.

The Commission is of the view that the basic purpose of prescribing the formats by Commission vide its letter dated 27.11.2014 was to obtain the correct data within the stipulated time frame for analysis of the actual performance of UPCL on month on month basis vis-a-vis target performance of the licensee. Non-submission of the information in the prescribed format within the stipulated time frame, submission of the incorrect data/information in the prescribed format and non availability/maintenance of commercial diary data in UPCL's web-site clearly shows a lackadaisical approach of the Petitioner towards compliance of the provisions of the Act/ Regulations/directions of the Commission.

Therefore, the Commission directs Petitioner to submit the correct information/data pertaining to monthly Commercial Performance Monitoring reports strictly in the prescribed formats on regular basis, so as to reach the Commission latest by 25th day of the following month and also submit the Quarterly Targets as per prescribed Format - 2 & 3 alongwith the Commercial Performance Monitoring report for the month of April, 2022.

The Commission's analysis on the information submitted by the Petitioner for the period 01.04.2019 to 31.12.2021 through its various submissions is being discussed in paragraphs mentioned hereunder.

As discussed in above paragraph, considering the situation arisen due to Covid-19 pandemic as force-majeure condition the Commission exempted UPCL from submitting monthly CPM reports for the period 01.03.2020 to 31.08.2021. However, for better comparison of UPCL's performance on year on year basis, data furnished by UPCL against March, 2020 and March, 2021 has also been discussed in below paragraph.

7.2.1 *Metering*

The Commission in its earlier Tariff Orders had been repeatedly giving directions to the Petitioner to energise new connections with the static/electronic meters and to replace all old mechanical meters with new electronic/static meters in accordance with CEA Regulations. Infact, the Commission has also directed UPCL to take benefit of centrally funded schemes such as 'Revamped Distribution System Scheme' which encompasses installation of Smart Meters in large scale and provides lucrative funding scheme for the same.

The reports pertaining to various performance parameters on metering and other issues have been analysed and findings thereof are being discussed below.

7.2.1.1 Replacement of Improper, Non-Functional, Stop/Stuck up defective meters (referred to as Identified defective meters (IDF))

In this regard, the Commission vide its Tariff Order dated 26.04.2021 had directed the Petitioner to restrict percentage defective meters (IDF) to 3% in plain as well as in hilly areas of the State by 30.06.2021, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) & Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations may be initiated.

With regard to compliance of the directive, the Petitioner has submitted the following Target vis-a-vis status of IDF cases:-

Table 7.10: Target vis-a-vis Status of Defective Meters (IDF)

FY	As on	Target	Status
2019-20	31.03.2020	2.07%	2.96%
2020-21	31.03.2021	2.25%	2.15%
2021-22	30.09.2021	1.80%	2.49%
	31.12.2021	1.71%	2.65%

In FY 2020-21, on examination of the Quarterly Targets submitted by UPCL in Format-2, it is observed that UPCL has achieved IDF percentage of 4%, 2.94% & 3.18% against the targets of 2.28%, 2.27% & 2.26% set for IDF cases at the end of 1st, 2nd & 3rd quarter. UPCL has only achieved the IDF percentage target of the 4th quarter of FY 2020-21, i.e. achieved 2.15% against target of 2.25%.

For FY 2021-22, UPCL has not submitted the Quarterly target of IDF cases for the first quarter of FY 2021-22 due to Covid-19 pandemic and the same was relaxed by the Commission. On examination of the submission made by the Petitioner, it is observed that the target set for IDF cases at the end of 2nd & 3rd quarter of FY 2021-22 were 1.80% & 1.71% respectively against which UPCL has achieved IDF percentage of 2.49% & 2.65% respectively, which shows that the Petitioner has failed to meet the targets set by itself. Also, the percentage of IDF meters as on December, 2021 is more than the percentage in starting of FY 2021-22.

The Commission opines that although the Petitioner has attempted in reducing percentage IDF meter to below 3%. However, the Petitioner indeed requires improvement at division level in order to reduce provisional billing cases and aim for achievement of overall target set for Provisional Billing cases, i.e. NA/NR, RDF/ADF/IDF cases in the State in accordance with the Orders of the Commission.

Circle-wise number of defective meters reported by the Petitioner in the prescribed format 3(A) is shown in the Table given below:

Table 7.11: Status of Defective Meters

S. No.	Name of Circle	No. of Defective Meters as on 31.03.2018	No. of Defective Meters as on 31.03.2019	No. of Defective Meters as on 31.03.2020	No. of Defective Meters as on 31.03.2021	No. of Defective Meters as on 31.12.2021	% of Defective Meters as on 31.03.2020	% of Defective Meters as on 31.03.2021	% of Defective Meters as on 31.12.2021
1.	EDC Dehradun (R)	3926	5572	6583	4576	4543	2.26%	1.50%	1.43%
2.	EDC Roorkee	4604	5599	6794	6281	8938	3.29%	2.96%	4.12%
3.	EDC Haridwar	2237	7561	7271	5683	8928	3.73%	2.81%	4.27%
4.	EDC Srinagar	20807	17725	12722	10785	10159	3.92%	3.23%	2.98%
5.	EDC Dehradun	565	1503	3521	1581	4207	1.72%	0.75%	1.97%
6.	EDC Kashipur	839	7980	5570	1675	4502	3.77%	1.09%	2.86%
7.	EDC Rudrapur	5223	6719	12428	6016	9323	5.26%	2.45%	3.69%
8.	EDC Ranikhet	11608	9512	4815	6170	5696	2.42%	3.02%	2.75%
9.	EDC Haldwani	2361	4058	4046	3641	5229	1.69%	1.47%	2.05%
10.	EDC Tehri	8019	6327	3718	4203	3603	2.35%	2.55%	2.13%
11.	EDC Pithoragarh	8057	4906	2586	1797	1208	1.61%	1.12%	0.74%
Total		**68246**	**77462**	**70054**	**52408**	**66336**	**2.96%**	**2.15%**	**2.65%**

It has been noticed that in Format 3A, UPCL is furnishing the IDF meter status details of the EDC Karanprayag in EDC Srinagar. However, EDC Karanprayag has been made a new Circle in FY 2019-20 after being separated from the EDC Srinagar.

From the above Table, it can be seen that the number of defective meters has decreased by 7,408, i.e. 77,462 defective meters as on 31.03.2019 to 70054 defective meters as on 31.03.2020. The number of defective meters has further decreased by 17,646 in FY 2020-21, i.e. 70,054 defective meters as on 31.03.2020 to 52,408 defective meters as on 31.03.2021. The percentage defective meters in UPCL's network as on 31.03.2020 & 31.03.2021 were 2.96% & 2.15% respectively which are within the 3% defective meters as restricted by the Commission. However, it has been observed that the percentage defective meters as on 31.03.2021 for EDC Srinagar & EDC Ranikhet were 3.23% & 3.02% which are above the limit of % IDF meters, i.e. 3% for plain as well as hilly areas.

Further, it can be seen from the above Table that the number of defective meters has increased by 13928, i.e. 52408 defective meters as on 31.03.2021 to 66336 defective meters as on 31.12.2021. It has been observed that the percentage defective meters as on 31.12.2021 against EDC Roorkee, EDC Haridwar & EDC Rudrapur are more than 3%.

It is an admitted fact that by expeditious replacement of defective meters on the basis of well laid down defective meter replacement programme, the Petitioner will not only be able to control this menace but will also comply with the provisions of SOP Regulations.

The Petitioner should put all its efforts for reducing the IDF cases below 3% in Circles where the actual IDF cases are above the target level of 3% so that Provisional Billing cases can be minimized and revenue can be enhanced.

Therefore, the Commission again directs the Petitioner to restrict percentage defective meters (IDF) to 3%, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations may be initiated. The Commission also directs the Petitioner to submit the status of defective meters for EDC Karanprayag alongwith the other Electricity Distribution Circles in Format-3A from April, 2022 onwards.

7.2.1.2 Replacement of Mechanical Meters

The Commission vide its Order dated 26.04.2021 had directed the Petitioner to ensure complete replacement of mechanical meters by electronic meters well before 30.06.2021, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations would be initiated. The Commission had also directed Company Secretary of UPCL to issue a copy of these directions to concerned officers as mentioned hereinabove, for information and necessary compliance. In compliance to the above directions, UPCL was able to replace all the mechanical meters by 31st October, 2021 which shows that the Petitioner has achieved the targets set by the Commission for replacement of mechanical meters by 30.06.2021 with a delay of 04 months. However, considering the unprecedented situation arising due to Covid-19 pandemic, the Commission expresses its satisfaction that the issue of mechanical meters has settled once and for all.

The status of mechanical meters furnished by the Petitioner in the prescribed format 3 (C) is given below:-

Table 7.12: Status of Mechanical Meters

Status	As on 31st March 2017	As on 31st March 2018	As on 31st March 2019	As on 31st March 2020	As on 31st March 2021	As on 30th Sep 2021	As on 31st Oct 2021	As on 31st Dec 2021
Mechanical Meters	113499	71382	48224	15306	1920	10	0	0

From the above Table, it is observed that 32,918 & 13,386 mechanical meters were replaced in FY 2019-20 & FY 2020-21 respectively. The remaining 1920 mechanical meters were replaced by 31st October, 2021. Now all the mechanical meters have been replaced with electronic meters. The Petitioner has made the compliance of the Regulations and will now be able to record its energy supplied more accurately/precisely and, thus, billed energy. Therefore, the Petitioner will have an incentive from October, 2021 onwards in terms of increase in its revenue.

Since the Petitioner has already replaced all the mechanical meters by electronic meter by 31st October, 2021, therefore, reports in Format- 3(C) would not be required any more.

7.2.2 *Billing*

The Commission, vide its earlier Tariff Orders, and various directions issued from time to time in this regard has been directing the Petitioner to improve its quality of billing, bill distribution and revenue collection system. It is noted that the Petitioner has made a beginning in this direction and has developed a system for internet based online view/payment of electricity bill besides bill payment facility also through Common Service Centres (CSCs) situated across the State for its consumers which has not only benefitted the consumers of the State but has also improved the overall billing and bill collection system of the Petitioner. However, the Commission is of the view that still a majority of consumers are located in remote hilly/rural areas and they may not avail internet based online facilities hence, a lot of scope for improvement in billing, bill distribution and bill collection system is required at the Petitioner’s end for consumers residing in such areas.

7.2.2.1 Provisional Billing: Status of NA/NR, IDF/ADF/RDF

The Commission vide its Tariff Order dated 26.04.2021, had issued directions to the Petitioner to reduce the percentage NA/NR cases to below 2% in the entire State latest by 30.09.2021, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) & Executive Engineer (Test) shall be held responsible for non-compliance of the Commission’s directions and appropriate action under the Act/Rules/ Regulations may be initiated.

With regard to the compliance of the directives, the Petitioner submitted the following:-

1. **Quarterly Target of NA/NR for FY 2020-21 & FY 2021-22 submitted by UPCL in Format-2.**

Table 7.13: Quarterly Target of NA/NR for FY 2020-21 & FY 2021-22 submitted by UPCL in Format-2

Financial Year	Particulars	At the end of Q-1	At the end of Q-2	At the end of Q-3	At the end of Q-4
2020-21	NA cases	1.26%	1.07%	1.06%	1.05%
	NR cases	7.64%	1.99%	1.98%	1.97%
	Total NA/NR	8.9%	3.06%	3.04%	3.02%
2021-22	Total NA/NR	*Not Submitted	1.42%	1.34%	1.28%

**UPCL has not submitted the Quarterly target of NA/NR cases for the first quarter of FY 2021-22 due to Covid-19 pandemic. The same was relaxed by the Commission.*

2. **Status of NA/NR submitted in Commercial Performance Monitoring Report.**

Table 7.14: Status of NA/NR submitted in Commercial Performance Monitoring Report

Particulars	NA Cases	NR Cases	Total NA/NR
As on 31.03.2019	4.25%	4.16%	8.41%
As on 31.03.2020	1.44%	13.29%	14.73%
As on 31.03.2021	1.64%	0.90%	2.54%
As on 31.12.2021	1.72%	1.04%	2.76%

On examination of Quarterly Targets furnished by UPCL vis-a-vis actual progress made in the field as on 31.03.2020, it has been observed that NA cases was 1.44% but the NR cases was found to be quite high, i.e. 13.29%. It is evident to note that the impact of Covid-19 pandemic had started in the month of March, 2020 and this could be the main reason for the high NR cases at the end of FY 2019-20, i.e. 13.29%. The total NA/NR cases as on 31.03.2020 was 14.73% which is way above the percentage NA/NR cases of 2% as restricted by the Commission.

On examination of the above Tables, it has been noticed that UPCL in FY 2020-21 has achieved 1.64% NA cases & 0.90% NR cases against the self-set target level of 1.05% & 1.97% respectively. Thus, during FY 2020-21, UPCL could not achieve the target level of 2% NA/NR as restricted by the Commission.

On examination of the targets and actual status of the NA/NR cases upto December, 2021, it has been observed that UPCL has fixed the target of NA/NR cases to 1.34% upto December, 2021. However, it was only able to achieve 2.76% NA/NR cases. This shows that the Petitioner has not only failed in achieving the target percentage of NA/NR cases to below 2% as set by the Commission but also has failed to meet the targets set by itself.

Hence, the Commission is of the view that the Petitioner indeed requires improvement at each division level in order to reduce the NA/NR cases and aim for achievement of overall target in accordance with the Orders of the Commission. Therefore, UPCL is required to diligently monitor & pursue each Distribution Division rigorously so as to align its actual percentage of NA/NR billing with the targets in accordance with the Commission's Orders/directions.

The Commission again directs the Petitioner to put in sincere efforts in reducing the percentage NA/NR cases to below 2% in the entire State latest by 30.09.2022, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) & Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/ Regulations would be initiated.

The Commission vide its Order dated 26.04.2021 had directed the Petitioner to restrict the provisional billing cases within the prescribed limit, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) would be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations may be initiated.

The Commission has observed that the percentage of provisional billing cases namely NA/NR, RDF/ADF/IDF, furnished in prescribed formats 2(A), 2(B), 2(C), 2(D) & 2(E) for FY 2020-21 are still at an alarming high levels vis-a-vis total number of billed consumers as shown in the Table given below:

Table 7.15: Status of Provisional Billing viz. NA/NR, RDF/ADF/IDF

Status	As on 31st March 2017	As on 31st March 2018	As on 31st March 2019	As on 31st March 2020	As on 31st March 2021	As on 31st December 2021
NA (%)	3.27	3.54	4.25	1.44	1.64	1.72
NR (%)	2.10	4.64	4.16	13.29	0.90	1.04
IDF (%)	4.94	3.37	3.52	2.96	2.15	2.65
ADF (%)	0.00	0.00	0.00	0.00	0.00	0.00
RDF (%)	1.02	0.98	1.95	0.96	0.93	1.12
Total (%)	**11.33**	**12.53**	**13.88**	**18.66**	**5.62**	**6.53**
Total Billed Consumers (Nos.)#	**19,15,855**	**20,24,578**	**22,03,032**	**23,63,726**	**2,439,959**	**2,502,082**

#Total billed consumers as furnished by UPCL in prescribed Format-1.

From the above Table, it is observed that there has been a significant reduction in total percentage of NA/NR, IDF/ADF/RDF cases in FY 2020-21 vis-a-vis FY 2019-20. However, the total percentage of NA/NR, IDF/ADF/RDF cases as on 31.12.2021 increased to 6.53% in comparison to 5.62% in FY 2020-21, which is not at all close to the directions/provisions of the SOP Regulations issued by the Commission. Wherein, the total provisional billing cases should be within 3% of the total number of consumers of the licensee, whereas, as per the Table above, the total percentage of NA/NR, IDF/ADF/RDF as on 31.12.2021 was 6.53%. Therefore, it can be said that the Petitioner has to put in concerted efforts to bring the overall provisional billing percentage to within 3% of the total number of consumers in plain as well as hilly areas of the State.

The Commission is of the view that despite numerous directions issued to the Petitioner for reducing and bringing the provisional billing cases within 3%, the Provisional billing cases are still at 6.53% as on 31.12.2021.

Therefore, the Commission once again directs the Petitioner to restrict the provisional billing cases within the limit fixed, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations may be initiated.

7.2.2.2 NB & SB Cases

The Commission, in its Tariff Order dated 26.04.2021, had taken a considerate view and had directed the Petitioner to liquidate and finalise atleast 5% of the NB/SB cases in each quarter and submit quarterly report before the Commission. In absence of the same, action under the provisions of Act/Rules/Regulations may be initiated against the Petitioner.

The Petitioner's submission in the prescribed Format-4 of Commercial Performance Monitoring Report pertaining to Not Billed (NB) and Stop Billed (SB) is being presented in the Table given below:

Table 7.16: Status of NB & SB Cases

Status		As on 03/17	As on 03/18	As on 03/19	As on 03/20	As on 03/21	As on 12/21
No. of NB/SB Cases	NB	166877	160409	161500	158300	161580	155910
	SB						

On examination of the submissions made by the Petitioner, it has been observed that the Petitioner has submitted two different figures of number of NB/SB cases as on 31.03.2020, i.e. 158300 (letter dated 21.12.2021) and 159329 (letter dated 15.10.2020) respectively. The Commission cautions the licensee that such mistake should be strictly avoided, and should not be repeated in future.

From the above Table, it is evident that instead of reducing NB/SB cases in FY 2020-21, the same has increased vis-a-vis March, 2020 and has shown a marginal reduction in FY 2021-22 (upto 31.12.2021) w.r.t. cases as on March, 2021, which indicates that the Petitioner has shown least interest in reducing these NB/SB cases. The probable reason for increase in NB/SB cases in FY 2020-21 could be due to impact of Covid-19 pandemic. In this regard, earlier the Commission had categorically directed the Petitioner to liquidate and finalise atleast 5% of such cases in each quarter whereas, the trend shows no significant improvement in the status which clearly indicates that the Petitioner has failed to comply with the directions of the Commission.

Therefore, taking a serious note on the continued non-compliance by the Petitioner with regard to liquidation and finalisation of NB/SB cases, **the Commission again directs the Petitioner to liquidate and finalise atleast 5% of the NB/SB cases in each quarter and submit quarterly report before the Commission. In absence of the same, action under the provisions of Act/ Rules/Regulations may be initiated against the Petitioner.**

7.2.2.3 Outstanding Arrears

The Commission in its Tariff Order dated 26.04.2021 had directed the Petitioner to make sincere efforts in mobilizing its resources throughout the year for collection of Arrears under a structured receivable management programme besides taking corrective actions against the habitual defaulters. The Commission in the said Tariff Order had also directed the Petitioner to submit an Action Plan within a month of issuance of this Order including the steps it proposes to take to collect electricity dues from the beginning of the financial year with same vigour as it normally does in the last quarter of the financial year.

The status of Outstanding Arrears furnished by the Petitioner in the prescribed Format- 5 is given below:

Table 7.17: Status of Outstanding Arrears

Description	As on 03/18		As on 03/19		As on 03/20		As on 03/21		As on 12/21	
Arrear	No.	Amount (Rs. Lakh)	No.	Amount (Rs. Lakh)	No.	Amount (Rs. Lakh)	No.	Amount (Rs. Lakh)	No.	Amount (Rs. Lakh)
Arrear>=5 Lac	1430	59586	1583	65543.38	950	38597.71	2423	104928.3	2993	124787.44
1=<Arrear<5 Lac	4028	7180	6246	10469.05	3940	6461.14	6675	11806.81	9285	16651.08
0.5 Lac=<Arrear<1 Lac	10326	7226	16302	11235.01	9745	6660.57	16580	11175.78	19851	13545.52
0.1 Lac=< Arrear<0.5 Lac	70715	14876	124701	26733.65	67139	14547.86	135154	28473.76	167682	34649.65
0.05 Lac= <Arrear<0.1 Lac	58949	4173	96743	6897.61	54201	3861.58	112244	8002.48	146131	10412.06
Total	**145484**	**93042**	**245575**	**120878.71**	**135975**	**70128.86**	**273076**	**164387.12**	**345942**	**200045.75**

From the above Table, it is evident that the Petitioner has not been able to reduce number of arrears cases and rather the same are increasing (except in FY 2019-20) on year-on-year basis and reached to an all time high of 345942 numbers in FY 2021-22 (upto 31.12.2021). It is evident to note that the increase in total numbers of outstanding arrears in FY 2020-21 vis-a-vis FY 2019-20 would be due to constraints arisen out of Covid-19 pandemic. The similar pattern can be observed while examining the outstanding arrears of FY 2021-22 (upto December, 2021) where the number of outstanding arrear cases and arrear amount have reached to an all time high values which is very alarming and depicting that all is not good with financial/commercial condition of the Petitioner.

The Commission is of the view that the Petitioner has been lackadaisical towards collection of arrears and lacks seriousness in laying down a planned programme/roadmap. This is a grave concern for the financial health of the Petitioner and may weed away the Petitioner's financial viability since 3.459 Lakh cases of arrears (which is around 13.82% of the total consumers of the Petitioner) have been pending as on 31.12.2021 with a staggering amount of Rs. 2,000.46 Crore pending recovery by the Petitioner which is about 26.23% of the Petitioner's approved Net ARR for FY 2021-22, i.e. Rs. 7,625.22 Crore.

The comparison of Outstanding Arrears furnished by the Petitioner in the above Table vis-a-vis Outstanding Arrears shown in the Commercial Diary, i.e. CS-4 is given below:-

Table 7.18: Re-conciliation of Pending Arrears submitted by UPCL (Rs. Crore)

Description	As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 31.03.2021	As on 31.10.2021	As on 31.12.2021
As per Commercial Performance Monitoring report (for KCC Consumers) *(excluding Arrears of amount below Rs. 5,000)*	854.57	930.41	1208.78	701.29	1643.87	1824.57	2000.45
As per CS-4 report (for UPCL in Total) *(including Arrears of amount below Rs. 5,000)*	1613.26	1622.62	1731.08	2287.79	2258.16	2986.61	*

**UPCL has not updated the CS-4 report in its web-site after month October, 2021.*

The Petitioner is aware of the fact that the CS-3 & CS-4 reports are being referred by Commission for analysing the Commercial Performance of the Petitioner. Moreover, for better transparency it is important that the Petitioner should maintain its Commercial Diary and update the same from time to time on its web-site in the interest of consumers of the State. However, while accessing the web-site for examination of the data of Commercial Performance, it has been found that the CS-3 & CS-4 reports are not being promptly updated on Petitioner's web-site. It has also been noted that during some days in the month of December, 2021 the web-site link of the Petitioner pertaining to Commercial Diary Data was not working rather an error message was appearing in the web-site and the Commission, accordingly, vide its letter dated 06.12.2021 had directed the Petitioner for ensuring the availability and updation of the data from time to time. Despite the Commission's directions, the Petitioner is updating the CS-3 & CS-4 reports with delay of approximately 05 months. **The Commission cautions the licensee that such practices should be strictly avoided, and this should not be repeated in future. The Commission directs the licensee to update and maintain the CS-3 & CS-4 report on their web-site regularly and promptly within 02 months.**

From the above Table, it has been observed that the Petitioner has not made serious efforts in recovering its arrears in FY 2020-21 and FY 2021-22 (upto 31.10.2021). The total arrear to be realised as on 31.10.2021 is Rs. 2986.61 Crore which is approx. 39.17% of its approved Net ARR for FY 2021-22. Moreover, on examination of Commercial Performance Monitoring Report as mentioned in the Table above, it has been observed that the performance of the Petitioner has deteriorated in FY 2020-21 which has further deteriorated in FY 2021-22 (upto 31.12.2021) as the amount of arrears instead of decreasing in FY 2020-21 & FY 2021-22 (upto 31.12.2021) has actually increased by 134.40% and 21.69% respectively which shows that the Petitioner has not taken enough measures for early recovery of the arrears.

The Commission is of the view that the Petitioner has to understand the gravity of the situation and should abstain from its legacy practice of remaining callous about arrears throughout the year and waking up in the last quarter of the Fiscal Year. This by all standards in any commercial organization is an in-appropriate practice and inculcates un-professional work culture in the organisation especially for the young field officers who adapt the same and are misguided by the false belief in the wrong historical practice. Further, the Commission cautions the Petitioner if such trend continues in ensuing years it may result in incorrigible damage to the commercial and financial viability of the distribution licensee.

Therefore, the Commission hereby directs the Petitioner to make sincere efforts in mobilizing its resources throughout the year for collection of Arrears under a structured receivable management programme besides taking corrective actions against the habitual defaulters. The Petitioner is, hereby, once again directed to submit an Action Plan within a month of issuance of this Order including the steps it proposes to take for collecting electricity

dues from the beginning of the financial year with same vigour as it normally does in the last quarter of the financial year.

7.2.2.4 Load Factor of Key/High value Consumers

The load factor of the KCC consumers, as submitted by the Petitioner in the prescribed Format-6 of Commercial Performance Monitoring Report has been shown in Table given below:

Table 7.19: Status of Key/High value Consumers

Description	As on 03/17	As on 03/18	As on 03/19	As on 03/20	As on 03/21	As on 08/21	As on 12/21
Total KCC Consumers	22120	23206	23985	25123	26503	27337	28237
*Abnormal cases	3232	3390	3961	6927	7325	8348	Not submitted
L.F<10%	9884	10335	10934	11616	12282	11639	13338
L.F>10%	12236	12871	13051	13507	14221	15698	14899

**Abnormal cases- Consumers exceeding sanctioned demand, Consumers having CT, PT by-pass Tamper Report, unbalanced Tamper Report & any other Tamper Report.*

From the above Table, it has been observed that UPCL has not been able to reduce the number of consumers having load factor less than 10% and the same are continuously increasing on year-on-year basis. Further, number of consumers as on 31.12.2021 having load factor less than 10% was 13338, which is around 47.23% of the total number of Key/High value consumers. The Commission is of the view that the consumers having load factor less than 10% are in alarmingly high numbers. UPCL has submitted that the abnormal cases upto August, 2021 was only 8348 numbers and the total Key/High value consumers as on August, 2021 were 27337. As on August, 2021, 30.54% of the total number of Key/High value consumers are falling under abnormal cases out of which majority comprises of consumers who have exceeded their sanctioned/contracted demand.

The Commission is of the view that the Petitioner has total consumer base of about 25.02 Lakh consumers in the State, out of which 28,237 consumers (Industrial category consumers having load 5 kW & above, Non-Domestic category consumers having load 10 kW & above and other category high value consumers) as on 31.12.2021, have been identified as Key Consumers/ High value consumers. These Key Consumers which are only about 1% of the total consumer base of the Petitioner contribute nearly 70% of its total annual revenue.

Therefore, the Commission directs the Petitioner that KCC consumers having less load factor should be closely monitored and average consumption pattern and abnormality in consumption pattern should be checked and duly analysed. The Commission also directs the

Petitioner to check KCC consumers who are repeatedly exceeding their sanctioned/contracted demand and take corrective action in such cases.

7.2.2.5 *Status of Revenue realisation per unit sold*

The Commission in its Tariff Order dated 26.04.2021 had directed the Petitioner to ensure that the data furnished in Commercial Performance Monitoring report should match with its Commercial Diary, i.e. CS-4 data and the Petitioner should ensure that in all future submissions of Commercial Performance Monitoring reports the Average Realisation Rate should be calculated on the basis of recoveries on account of Realisation against energy dues only and the realisation shown should exclude recoveries from duties/cess, etc. Further, the realisation against energy dues should clearly bifurcate realisation against current dues & realisation against past dues, failing which appropriate action shall be initiated against the Petitioner/Licensee.

The Petitioner submitted that formats of Commercial Diary have been revised so as to include the information as desired by the Commission and now the information is being provided to the Commission as per the direction.

However, on examination it has been observed that despite Commission's specific direction that 'Average Realisation Rate' should be calculated on the basis of recoveries on account of realisation against energy dues only and the realisation shown should exclude recoveries from duties/cess etc. and realisation against energy dues should clearly bifurcate realisation against current dues & realisation against past dues, the Petitioner has not clearly indicated in Format-7 of Commercial Performance Monitoring Reports, the revenue realisation including and excluding the realisation against past dues and is still showing realisation against arrears in its revenue realisation and calculating realisation per unit energy sold by including realisation against arrears. The same is also correlated from CS-4 report of UPCL wherein the 'Total Revenue Realisation' is considered by adding 'Realisation against Current Year Assessment' and 'Realisation against Arrears'.

The status of Revenue Realisation per unit sold furnished by the Petitioner in the prescribed Format-7 is given below:-

Table 7.20: Status of Revenue Realisation per unit sold

Year	Sold Energy (MU)	Total Revenue Realization (Rs. Lakh)*	Average Realization Rate (Rs./unit)	Average Power Purchase Cost per Unit sold (Rs./unit)	Approved /Trued-up Average Cost of Supply (Rs/Unit)
FY 2015-16	10298.14	524286	5.09	4.11	4.54
FY 2016-17	10575.544	555300	5.25	4.63	4.69
FY 2017-18	11208.82	603052	5.38	4.58	4.77
FY 2018-19	11826.68	637700	5.39	4.85	5.29
FY 2019-20	12021.35	656362	5.46	5.65	5.94
FY 2020-21	11432.59#	6737.07#	5.89	4.82	5.48

**Including Duties/Cess/DPS & other recoveries.*
 # Revised figure furnished by UPCL vide its letter dated 24.03.2022.

On examination, it has also been observed that in FY 2019-20, the total Revenue Realization, i.e. Rs. 6563.62 Crore submitted by the Petitioner in Format-7 of Commercial Performance Monitoring reports is actually inclusive of 'Realisation against Arrears' of Rs. 160.41 Crore as shown in CS-4 Report of March, 2020.

The Commission vide its letter dated 17.02.2022 raised certain observations on the Petitioner's submissions related to assets maintained by UPCL, reduction in revenue realization of non-domestic & industrial consumers during FY 2020-21, variation in total revenue realization as on 31.03.2021 in Format-7 & Format-8. The Petitioner vide its letter dated 10.02.2022 has indicated the 'Energy Sold' of 11418.06 MU and 'Total Revenue Realisation' of Rs 6734.89 Crore for FY 2020-21 in Format-7 pertaining to 'Status of Revenue realisation per unit of Energy Sold'. However, the Petitioner vide its letter dated 24.03.3022 has furnished the revised Format-7 wherein the Petitioner has changed the figure of 'Energy Sold' and 'Total Revenue Realisation' for FY 2020-21 to 11432.59 MU and Rs 6737.07 Crore. **The Commission directs the licensee to submit the correct information/ figures/data before the Commission within the stipulated time frame after thorough check by the concerned officers of the Petitioner and, accordingly, cautions the licensee that practices of furnishing the unvalidated/incorrect information before the Commission should be strictly avoided, and this should not be repeated in future else appropriate action under the Act/ Rules/ Regulations would be initiated.**

On examination, it has also been observed that in FY 2020-21, the total Revenue Realization, i.e. Rs. 6737.07 Crore submitted by the Petitioner in Format-7 of Commercial Performance Monitoring reports is actually inclusive of 'Realisation against Arrears' of Rs. 411.91 Crore as shown in CS-4 Report of March, 2021.

The Commission again directs the Petitioner to ensure that the data furnished in

Commercial Performance Monitoring report should match with its Commercial Diary, i.e. CS-4 data and the Petitioner should ensure that in all future submissions of Commercial Performance Monitoring reports the Average Realisation Rate should be calculated on the basis of recoveries on account of Realisation Against energy dues only and the realisation shown should exclude recoveries from duties/cess, etc. Further, the realisation against energy dues should clearly bifurcate realisation against current dues & realisation against past dues, failing which appropriate action shall be initiated against the Petitioner/Licensee.

7.2.3 *Bill Collection System*

Taking cognizance of various consumer complaints received by the Commission in writing and also during public hearing, the Commission earlier had directed the Petitioner to improve its existing Bill Collection System. Earlier, the Commission vide its Order dated 01.09.2005 had imposed a consolidated penalty of Rs. 1,00,000 and recurring additional penalty of Rs. 2,500 per day on UPCL for non-compliance of its directions with respect to Bill Collection System. Since then, multiple correspondences, directions, Orders have been issued by the Commission and the Petitioner has been submitting justification for the fragmentary progress in the matter.

However, it was only in the year 2017 when the Petitioner filed a Petition before the Commission seeking approval of an investment proposal of Rs. 11.20 Crore for construction of 158 Bill Collection Centres (BCCs) across the State within a period of one year. The said approval was accorded by the Commission vide its Order dated 15.05.2017 with the direction to complete the construction of BCC within the stipulated time.

Subsequently, the Commission considering progressive attempts of the Petitioner, viz., making available cash counters, mobile bill payment facilities in its field offices/Substations, bill payment through Banks, online payment facilities, integration of Common Service Centres (CSCs) etc., took a lenient view and vide its Order dated 10.04.2019, withdrew the daily penalty of Rs. 2500/- imposed on the Petitioner vide its earlier Order dated 01.09.2005, w.e.f. 01.08.2017. However, the penalty deposited by the Petitioner upto 31.07.2017 was not waived off.

Meanwhile, during periodical monitoring of status of construction of Bill Collection Centers and integration of CSCs, the Commission observed that despite Commission's emphasis on timely completion of Bill Collection Centers, works of 28 no. of BCCs of Kumaon Zone were not started even after an elapse of more than four and half years from the date of investment approval.

Thereafter, the Commission initiated a Suo-moto proceedings in the matter of non-compliance of its directions and, accordingly, at Para 16 of its Order dated 11.02.2022 directed UPCL that:-

> "
> *16. Much to the dismay of the Commission, as last and final opportunity in the matter, the Commission accepts the request of the Respondent that it shall complete the work by end of 31st July 2022 and further directs it to furnish monthly progress report before the Commission till completion of the said work."*

Therefore, **the Petitioner is directed to complete the balance works of construction of Bill Collection Centers and ensure integration of all CSCs in the State latest by 31.07.2022, in the absence of which, without prejudice to earlier penal actions, stern action under the provisions of the Act/ Rules/Regulations would be initiated against it. Further, the Commission directs the Petitioner to make widespread publicity/Advertisement/workshop of the bill collection facilities & list of VLEs operating in the vicinity of various electricity Sub-division/division officers of UPCL across the State.**

7.3 Energy Audit

The Commission in its earlier Tariff Orders had been reiterating its direction for conducting the energy audit of 11 kV feeders and submit the audit report before the Commission. Moreover, the Commission in its Tariff Order dated 26.04.2021 had directed the Petitioner to provide/maintain the metering system at each feeder, 'T' points, DTs and consumers in its distribution network for effective energy auditing and accounting. The Petitioner was also directed to submit compliance report in this regard by 30.09.2021, failing which appropriate action may be taken against the Petitioner in accordance with the Act/Rules/Regulations.

The Commission is of the view that proper energy accounting can throw-up several actionable issues which, when addressed, shall result in marked reduction in distribution losses in the Petitioner's network.

Further, the Petitioner submitted that:

(i) Metering has been completed in all 33 kV substations upto 11 kV and are being maintained.

(ii) 11,602 DTs have been metered under IPDS/R-APDRP scheme and are being maintained.

(iii) Following efforts are being made for Meter data management and Energy Audit system:

(a) Meter Data Management & Energy Audit system has been developed under erstwhile R-APDRP Part-'A' & ongoing IPDS scheme of MoP, GoI wherein GPRS enabled Modems were installed in the Urban Feeders pertaining to identified 67 Nos. towns of the State (31 RAPDRP Town + 36 IPDS Town).

(b) GPRS modems are regularly sending the meter data to UPCL Data Center at Dehradun on daily basis and the same is being utilized for the purpose of calculating daily SAIFI/ SAIDI parameters and Load Survey Data is being utilized for Feeder Wise Energy Accounting. The system is now being replaced with Real Time-Data Acquisition System for the purpose of feeder-wise outage determination covering 106 Nos. 33/11 kV substations pertaining to 66 Nos. towns including both Urban & Rural Feeders.

(c) Number/Duration of outages at 11 kV Feeder level is being calculated from "Power Failure Occurrence & Restoration" event captured in the Meter Data. Data of all Urban Feeders is being regularly uploaded on National Power Portal through API interfaces from Machine to Machine to National Power Portal without human intervention. Similarly, Customer Requests/Complaints status of town area is also being reported to National Power Portal through API mechanism.

(d) UPCL is able to maintain the healthy communication up to 95 % from 11 kV Outgoing Feeders installed under the above programs but unable to maintain healthy communication from Distribution Transformer locations (approx 8200) facing difficulty in maintaining metered sites healthy, poor communication from remote locations as modems installed are based on 2G technology and network companies are now focusing on 4G technology.

(e) UPCL will work upon a concrete plan to maintain these DTR locations healthy of the remaining towns so that communication % can be improved.

The Commission has noted the progress made by the Petitioner w.r.t. metering. However, the Commission is of the view that keeping weak links, i.e. unmetered/faulty meter nodes in the distribution network would make the entire exercise of energy audit as futile as correct energy accounting and audit is not possible with incomplete/faulty metering in the 33 kV & 11 kV distribution network.

Therefore, the Petitioner is directed to provide/maintain the metering system at each feeder, 'T' points, DTs and consumers in its distribution network for effective energy auditing and accounting. The Petitioner is directed to submit compliance report in this regard by 30.09.2022, failing which appropriate action may be taken against the Petitioner in accordance with the Act/Rules/Regulations.

7.4 AT&C Losses

From the above comprehensive analysis of metering, billing & collection activities of the Petitioner, it is evident that still a lot of improvement, especially in the areas of provisional billing, replacement of Defective Meters and Outstanding Arrears is required. The AT&C losses of the Petitioner as on 30.09.2021 as per Commercial Performance Monitoring report are 31.76%. The reason for such high AT&C loss is primarily high distribution losses (17.09%) and low collection efficiency (82.30%) till 30.09.2021. The Commission in its previous Orders had also categorically directed the Petitioner to ensure completion of the R-APDRP works within the specified time lines and also to achieve the specified target for reduction of AT&C losses to the extent of 15% in the selected towns within the stipulated timeframe for availing the benefits of conversion of loan into grant. In case, the Petitioner fails to do so, the servicing cost/cost of the loan in whole or part may not be allowed as pass through in the ARR. Similar directions were issued by the Commission in its Order dated 05.10.2016 pertaining to Capital Investment for the Integrated Power Development Scheme (IPDS) Project, Ministry of Power (MoP), Government of India (GoI).

Therefore, the Commission is of the view that with the above linkage of cost of funding with the AT&C loss achievement, such programs can be construed as a double edged sword, which might cause adverse financial impact in case the Petitioner fails to achieve the required reduction in AT&C losses of the target area.

The status of AT&C losses of UPCL for the last eight financial years furnished by the Petitioner in the prescribed Format-8 is given below:

Table 7.21: Status of AT&C Losses

Year	Input Energy (MU)	Energy Sold (MU)	Assessment (Rs Lakh)	Collection (Rs Lakh)	Distribution Loss (%)	Approved Distribution Loss (%)	Collection Efficiency (%)	Actual AT&C Loss (%)	Computed AT&C losses (Based on Approved Norms) (%)
FY 2014-15	11888.23	9685.16	418940	418388	18.53	15.50	99.87	18.64	17.19
FY 2015-16	12559.60	10298.14	493267	524286	18.01	15.00	106.29	12.85	16.28
FY 2016-17	12780.32	10575.54	540075	555300	17.25	15.00	102.82	14.92	16.28
FY 2017-18	13213.73	11208.82	609821	603052	15.17	14.75	98.89	16.11	15.82
FY 2018-19	13803.71	11826.68	654424	637641	14.32	14.50	97.44	16.52	15.36
FY 2019-20	13880.96	12021.35	714458	656362	13.40	14.25	91.87	20.44	15.06
FY 2020-21	13287.59	11432.59	683958	673707	13.96	14.00	98.50	15.25	14.77
FY 2021-22 (upto Dec. 2021)	10949.68	9404.57	586878	514063	14.11	13.75	87.59	24.77	14.48

From the above Table, it has been observed that during FY 2019-20, the Petitioner has made some efforts in reducing its distribution losses. However, the collection efficiency in FY 2019-20, i.e. 91.87% has decreased vis-a-vis FY 2018-19 level, i.e. 97.44% due to which it was not able to bring its AT&C losses below the approved AT&C loss levels.

It is evident from the above Table, that the Petitioner has not made its sincere efforts in reducing its distribution losses and increasing the collection efficiency in FY 2020-21 due to which it was not able to bring its distribution losses and AT&C losses below the approved distribution loss and AT&C loss levels.

However, from the above Table, it has been observed that the distribution losses in FY 2021-22 (upto December, 2021) is 14.11% which is more than the approved distribution loss levels. Moreover, the actual AT&C losses for the above period are more than double of computed AT&C losses (calculated on the basis of approved level of distribution losses & collection efficiency in respective Tariff Orders) due to low collection efficiency and high distribution losses.

From the above Table, it is observed that the collection efficiency in FY 2019-20 & FY 2020-21 were 91.87% & 98.50% respectively, in this regard, as discussed in above section of Revenue realisation per unit sold, the Petitioner has included the realisation against arrears of Rs. 160.41 Crore & Rs. 411.91 Crore in its total revenue realisation of FY 2019-20 & FY 2020-21 for calculating its AT&C losses respectively. This shows that pragmatically the real AT&C losses would be much higher than the figures depicted by the distribution licensee in its Commercial Performance Monitoring reports.

Further, with regard to the performance during FY 2021-22 (upto 31.12.2021), the Commission has observed that despite Commission's specific directions for recovery of revenue through out the year still the collection efficiency data is depicting that the revenue collection drive being conducted rigorously during the fag end of the financial year only and sincere efforts at Petitioner's end are missing throughout the financial year.

The Commission is of the view that the major component of AT&C losses are the distribution losses which basically comprises of Technical & Commercial losses. Further, the Commission is of the view that since Technical & Commercial losses are more in LT network in comparison to HT network, hence, it is apparent that in order to substantially reduce AT&C losses, the Petitioner needs to strengthen its LT network with energy efficient devices and energy conservation measures.

The Commission has observed that the percentage losses indicated in the Commercial Performance Monitoring Report are an average of losses occurring in HT/EHT and LT consumers. The Commission is of the view that the marginal AT&C losses occurring at HT/EHT consumers end are compensating the losses occurring at LT consumers end, therefore, the actual losses occurring against LT consumers would be way above the AT&C losses shown in the Table above.

In light of the above, it should be the foremost endeavour of the licensee to reduce the distribution losses at LT level within the acceptable limits. The Petitioner should take up the following works at the earliest for reducing the AT&C losses:

1. The Petitioner must conduct planned regular actions for early recovery of outstanding arrears.
2. The Petitioner must analyse Key/High value consumers having load factor less than 10% on a regular basis and lay down mechanism for checking inspection/tamper analysis/ condition monitoring of MRI reports and metering equipment.

3. The Petitioner must ensure that all the meters of the consumers are read and their bills prepared and distributed within time. The Petitioner shall also ensure that no provisional bills namely NA/NR are issued for more than two billing cycles in accordance with the provisions of UERC (The Electricity Supply Code, Release of New Connections and Related Matters) Regulations, 2020 and amendments issued from time to time. Divisional head must be held accountable for not controlling provisional billings. The Petitioner should make efforts to always issue computerized bills to its consumers requiring no human intervention.
4. The Petitioner should prepare a time bound plan/programme to replace all the bare overhead conductors with insulated aerial bunched conductors (AB conductor) in theft prone areas alongwith effective monitoring mechanism for its implementation.
5. The Petitioner should also prepare a time bound plan/programme for segregation of rural feeders into Agriculture and Non-Agriculture load basis which would be an effective measure for segregation of theft/pilferage of electricity in Agriculture and Non-Agricultural usage in villages/rural areas.
6. The Petitioner should make extra efforts to get the arrears realised from the defaulting Government departments. The Commission is of the view that the Petitioner should promote and implement the smart pre-paid metering so that revenue recovery can be enhanced and problems related to accumulation of arrears is resolved.
7. Replace the GI wire based power distribution system with suitable conductor so that technical losses in the system can be reduced and the same would also help in improving the quality of power supply to the consumers.
8. The Petitioner should ensure that meters are installed at each point of energy accounting and are kept in proper working condition.
9. The Petitioner should also develop GIS based consumer indexing database in areas other than the areas covered under R-APDRP/IPDS, which shall be helpful in providing prompt services to consumer and shall be helpful in planning the new connections, transformer augmentation, phase change, localising fault, supply restoration and other services to consumers necessarily provided by any distribution utility having its vision &

mission aligned to provide quality consumer services.

Therefore, the Commission directs the Petitioner to submit an Action Plan for implementation of the aforesaid works within a month of issuance of the Order for restricting the AT&C losses at minimum level.

7.5 Commission's Analysis and Directions on Financial Performance

The Commission has been monitoring & reviewing the performance of the Petitioner based on the information/reports submitted by it. The Commission in its earlier Tariff Orders carried out the analysis of financial performance of UPCL based on its statement of accounts in certain key areas. In line with the same methodology, the key performance ratios after taking into account the financial performance of UPCL in FY 2020-21 based on the audited financial statements are detailed below.

7.5.1 *Liquidity Ratio*

Liquidity ratio analyzes the ability of a company to pay off both its current liabilities as they become due as well as their long-term liabilities as they become current. In other words, these ratios show the cash levels of a company and the ability to turn other assets into cash to pay off liabilities and other current obligations.

Liquidity is not only a measure of how much cash a business has. It is also a measure of how easy it will be for the company to raise enough cash or convert assets into cash. Assets like accounts receivable, trading securities, and inventory are relatively easy for many companies to convert into cash in the short term. Thus, all of these assets go into the liquidity calculation of a company.

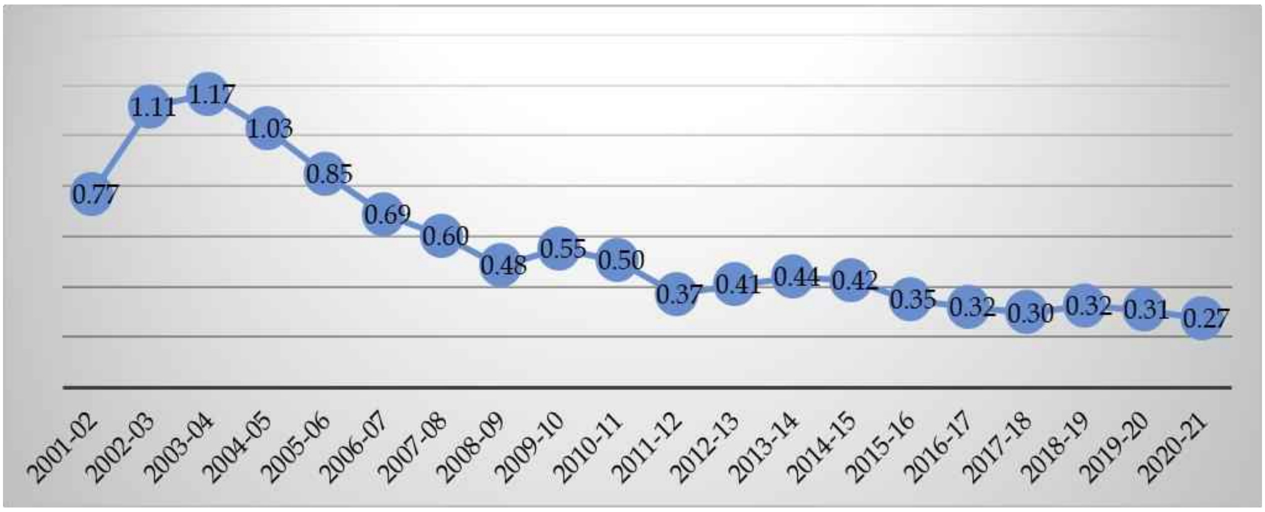
7.5.1.1 Quick Ratio or Acid Test Ratio

It is the ratio of (current asset – inventories) and current liabilities. The quick ratio or acid test ratio is a liquidity ratio that measures the ability of a company to pay its current liabilities when they become due with only quick assets. Quick assets are current assets that can be converted to cash within 90 days or in the short-term. Cash, cash equivalents, short-term investments or marketable securities and current accounts receivable are considered quick assets excluding inventories.

The quick ratio is often called the acid test ratio. The acid test shows how well a company can quickly convert its assets into cash in order to pay off its current liabilities. It also shows the level of quick assets to current liabilities.

Higher quick ratios are more favourable for companies because it shows that there are more quick assets than current liabilities. A company with a quick ratio of 1 indicates that quick assets equals current liabilities. This also shows that the company could pay off its current liabilities without selling any long-term assets.

Chart 8: UPCL Quick Ratio from FY 2001-02 to FY 2020-21



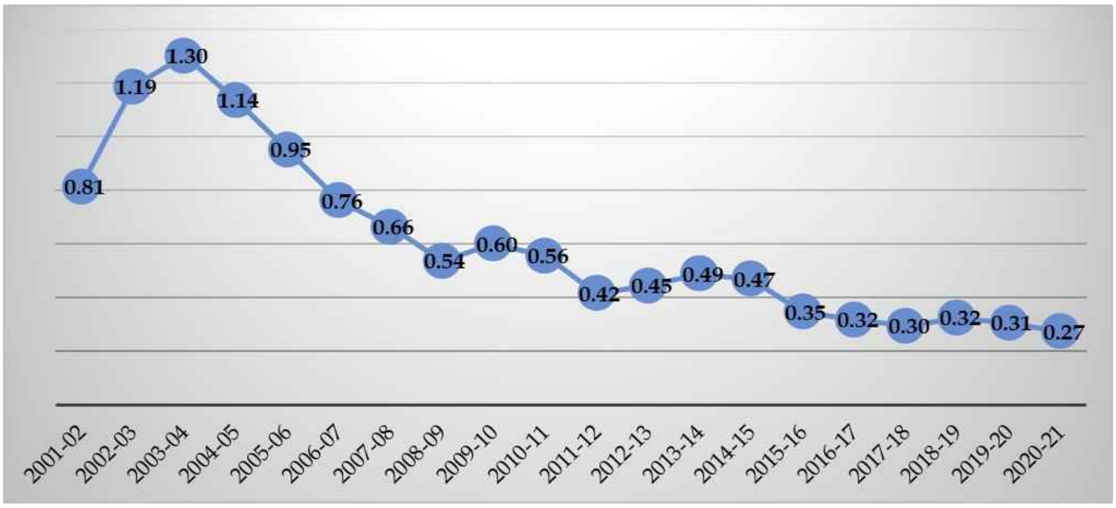
As can be seen from the above graph, UPCL's Quick Ratio was almost 1 in the FY 2002-03 & FY 2003-04 and thereafter, shows a downward linear trend in the ensuing years, thus, showing the Corporation's inability to maintain its liquidity over a period of time, the primary reasons for the same could be its inability to realise its dues from the consumers and in turn discharging the current liabilities which are also increasing. Further, based on the financial performance of UPCL in FY 2020-21, the situation has slightly deteriorated, and the ratio has decreased from 0.31 in FY 2019-20 to 0.27 in FY 2020-21, which does not appear to be a good sign as far as this ratio is concerned.

7.5.1.2 Current Ratio

It is the ratio of current assets and current liabilities. The current ratio is a liquidity and efficiency ratio that measures a firm's ability to pay off its short-term liabilities with its current assets. The current ratio is an important measure of liquidity because short-term liabilities are due within the next year, thus, implying that a company has a limited amount of time in order to raise the funds to pay for these liabilities. Current assets like cash, cash equivalents, marketable securities and inventories can easily be converted into cash in the short term. This means that companies with larger amounts of current assets will more easily be able to pay off current liabilities when they become due without having to sell off long-term, revenue generating assets.

A higher current ratio is always more favourable than a lower current ratio because it shows the company can more easily discharge the current liabilities. A Current Ratio of less than 1 indicates a high working capital leveraging and highly risky position since it indicates that the Current Liabilities are not fully backed up by the Current Assets and in the event of default, the Company may resort to selling its Assets to meet out its debts.

Chart 9: UPCL Current Ratio from FY 2001-02 to FY 2020-21



As can be seen from the above graph, apart from initial few years upto FY 2004-05, UPCL is not able to maintain its current assets in proportion to its current liabilities, thus, showing a highly leveraged position on the part of the Corporation. The current ratio mainly indicates that how much times the short term liabilities are backed by the current assets, in case of UPCL as can be seen from above graph, in the past five years UPCL is not able to maintain the said ratio to even as low as 0.5 which is way low than the industry standard of 1.

This indicates that for discharging its current liabilities, UPCL will either have to resort to liquidating its long term assets or borrow additional working capital loans. This also is an indicator that on one side UPCL has failed to recover its current and past dues from the consumers efficiently and on the flip side the current liabilities have been used to finance the long term assets of UPCL. The Commission has been pointing out towards this issue in its previous Tariff Orders that assets are being financed through current liabilities. UPCL has been claiming every year that internal resources are being used to finance certain asset additions. The internal resources in UPCL's case are nothing but funds which should have been used to discharge its current liabilities like Govt. Dues (Royalty, duties, PDF etc), instead have been utilised in creation of long term assets.

In this regard, **the Petitioner is directed to carry out the age-wise analysis of its current liabilities outstanding as on 31.03.2021 and based on the ageing analysis determine how much of the same would be required to be discharged and how much excess provision exists in the same so that the same may be reversed and submit the same to the Commission within 3 months from the date of Order.**

7.5.1.3 Operating Cash Flow Ratio

It is the ratio of cash flow from operation and the current liabilities. It is a measure of how well current liabilities are covered by the cash flow generated from a company's operations. The operating cash flow ratio can gauge a company's liquidity in the short term. Using cash flow as opposed to income is considered a cleaner, or more accurate measure to analyse the financial health of a company & also its operations. The operating cash flow ratio is a measure of the number of times a company can pay off current debts with cash generated in the same time period. A higher number means a company can cover its current debts more times, which is a good thing. Companies with a high or increasing operating cash flow ratio are in good financial health. Those that are struggling to cover liabilities may be in trouble, at least in the short term.

Chart 10: UPCL Operating Cash Flow Ratio from FY 2008-09 to FY 2020-21

As can be seen from the above graph, cash flow from operating activities is hardly able to meet its current liabilities. UPCL is struggling to cover its current liabilities, at least in the short term. In FY 2009-10 and FY 2011-12, cash flow operating ratio is negative due to huge losses on account of high distribution losses and poor collection efficiency resulting into negative Cash flow from Operating Activities. Further, in FY 2020-21 this ratio has again become negative. In all the years the ratio is less than 1 which indicates that the company has generated less cash in the period than it needed to pay off its short-term liabilities. This may signal a need for more capital.

7.5.2 *Solvency Ratio*

Solvency ratios, also called leverage ratios, measures a company's ability to sustain operations indefinitely by comparing debt levels with equity, assets, and earnings. In other words, solvency ratios identify going concern issues and a firm's ability to pay its bills in the long term. Solvency ratios focusses more on the long-term sustainability of a company instead of the current liability payments. Better solvency ratios indicate a more creditworthy and financially sound company in the long-term.

7.5.2.1 Interest Coverage Ratio

It is a ratio of EBIT (operating Income) during a given period and the amount a company spends in interest payment on its debts during the same period. The interest coverage ratio is used to determine how easily a company can pay interest on outstanding debt. Essentially, the interest coverage ratio measures how many times over a company could pay its current interest payment with its available earnings. In other words, it measures the margin of safety a company has for paying interest during a given period, which a company needs in order to survive future (and perhaps unforeseeable) financial hardship should it arise. A company’s ability to meet its interest obligations is an aspect of a company’s solvency, and is, thus, a very important factor in the return for shareholders. The lower a company’s interest coverage ratio is, the more is the burden of its debt expenses on the company. When a company's interest coverage ratio is 1.5 or lower, its ability to meet interest expenses may be questionable. 1.5 is generally considered to be a bare minimum acceptable ratio for a company and a tipping point below which lenders will likely refuse to lend the company more money, as the company’s risk for default is too high. Moreover, an interest coverage ratio below 1 indicates that the company is not generating sufficient revenues to service its interest expenses. If a company's ratio is below 1, it will likely need to spend some of its cash reserves in order to meet the difference or borrow more, which will be difficult for reasons stated above. Otherwise, even if earnings are low for a single month, the company risks falling into bankruptcy. Generally, an interest coverage ratio of 2.5 is often considered to be a warning sign, indicating that the company should be careful not to dip further.

Chart 11: UPCL Interest Coverage Ratio from FY 2001-02 to FY 2020-21

As can be seen from the above graph, UPCL was suffering losses in most of the financial years and was hardly able to meet its interest liability. The standard ratio is 1.5 times and it can be seen from the above graph, that only in FY 2013-14 UPCL earned sufficient profit to maintain the ratio above the standard ratio.

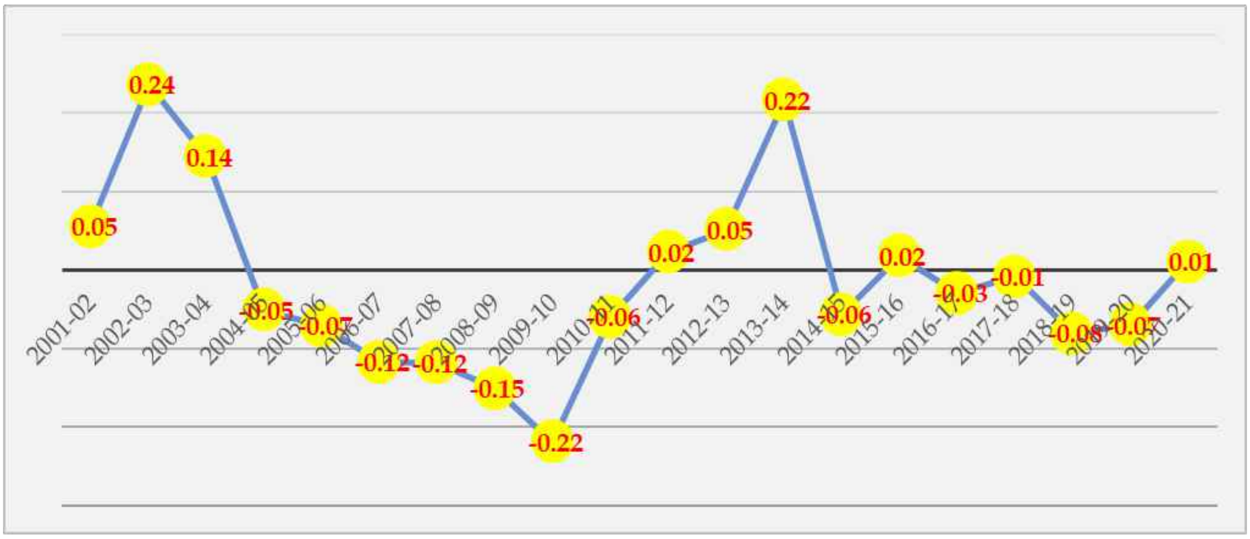
7.5.3 *Profitability Ratio*

Profitability ratios compares income statement accounts to show a company's ability to generate profits from its operations. Profitability ratios focus on a company's return on investment in inventory and other assets. These ratios basically show how well companies can achieve profits from their operations. Profitability is also important to the concept of solvency and going concern.

7.5.3.1 Return on Total Assets

It is a ratio of EBIT during a given period and average Fixed Assets. The ratio is considered to be an indicator of how effectively a company is using its assets to generate earnings before contractual/statutory obligations are paid. The greater a company's earnings in proportion to its assets (and the greater the coefficient from this calculation), the more effectively that company is said to be using its assets. This ratio allows to see the relationship between organisation's resources and its income, and it can provide a point of comparison to determine if an organization is using its assets more or less effectively than it had done previously.

Chart 12: UPCL Return on Assets Ratio from FY 2001-02 to FY 2020-21

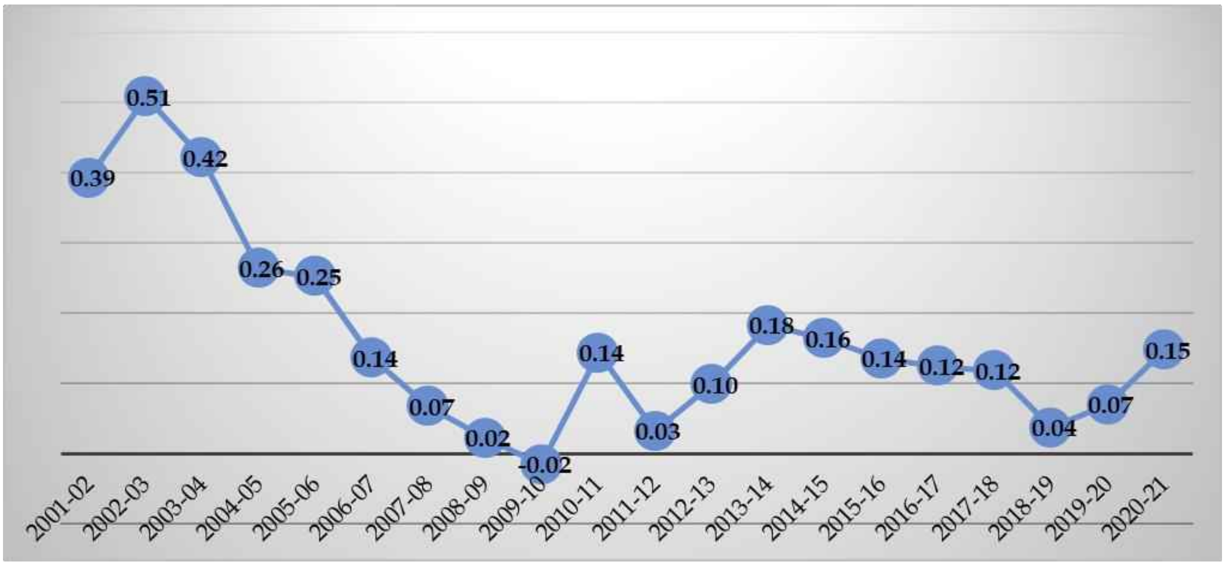


As can be seen from the above graph, UPCL earnings through its operations is not in parity with the investment made in building up its fixed assets over a period of time.

7.5.3.2 Gross Margin Ratio

Gross margin is the difference of average sales revenue and the average direct cost, i.e. Power purchase cost in case of the Petitioner. Accordingly, gross margin ratio is the ratio of gross margin and the operating expenses of the company. Higher gross margin ratios are more favorable indicating that the company will have more money to pay its operating expenses.

Chart 13: UPCL Gross Margin Ratio from FY 2001-02 to FY 2020-21



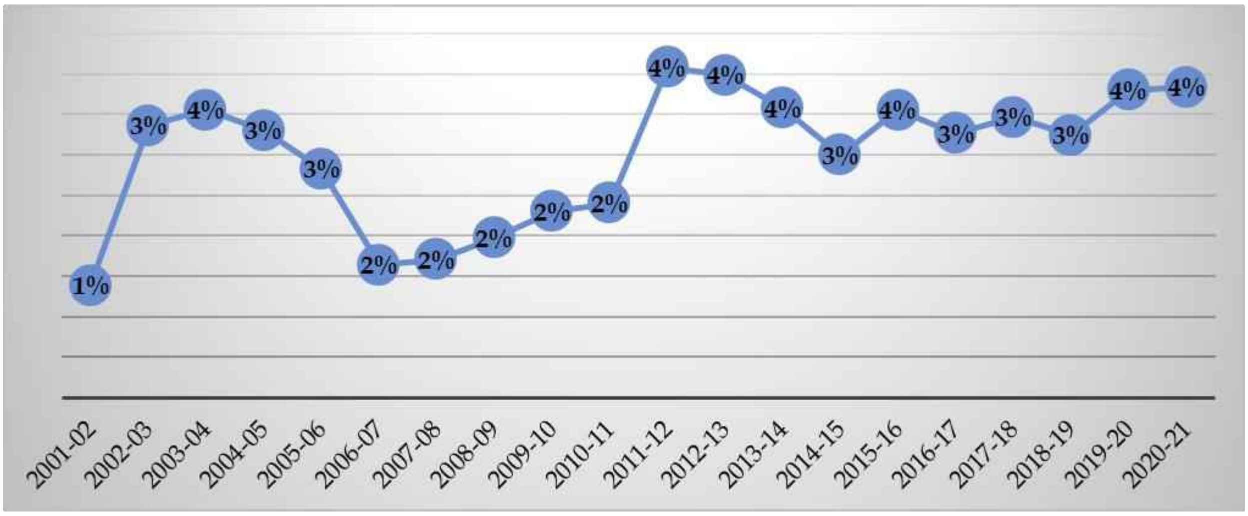
As can be seen from above graph, UPCL is having a positive gross margin ratio except for FY 2009-10. This indicates that the company is able to sell power at a rate higher than the procurement cost of the same, however, the overall ratio is not on the much higher side, with a maximum going upto 0.51 in FY 2002-03, indicating that the company would be left with meagre funds to meet its operational cost other than power procurement expense, and may land up in facing losses over a period of time.

7.5.4 *Operating or Activity Ratio*

7.5.4.1 Repair & Maintenance to Net Fixed Assets

The maintenance expense to fixed assets ratio allows to understand the age or condition of the company's equipment. An increase to a company's repairs and maintenance expense to fixed assets ratio over time can signal ageing equipment or assets that are being pushed to their operating limits.

Chart 14: UPCL R&M to Net Fixed Asset Ratio from FY 2001-02 to FY 2020-21



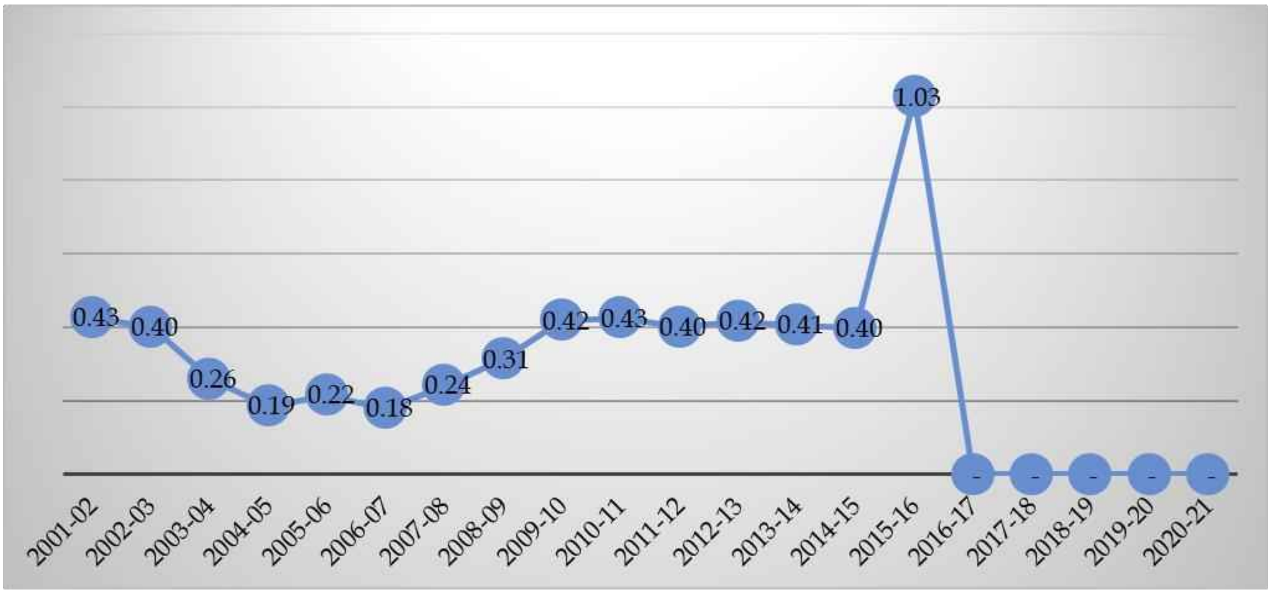
It can be seen from the above graph, that UPCL is incurring R&M expenses on an average of 3% of the Net Fixed Assets. UPCL appears to be performing fairly on this ratio aspect merely on account of the reason that it has been continuously receiving funds (grants) from GOI under various schemes of MOP, GOI namely APDRP, RAPDRP, IPDS etc. which besides covering development of new substaions/lines also include funding on augmentation/strengthening of old/existing assets, thus, reducing the requirements of Repair & Maintenance of old assets, as the same are either replaced by new assets or are augmented & strengthened.

7.5.4.2 Repair & Maintenance to Inventory Ratio

This ratio depicts the relation between the R&M expenses to Net Inventory maintained by the Corporation. In case of UPCL, being an Electricity Distribution Company, the inventory is not converted into sales as part of the operations carried out by the entity. Further most of the project works are getting done by the Corporation on turn-key basis, wherein the material and labour is supplied by the Contractor, thus denying the need for maintenance of inventory for said purpose. The maintenance of inventory would be required by the Corporation for the purposes of meeting its requirement of Repair & Maintenance works as may be carried out from time to time during the course of its operation. In view of the above, the calculation of inventory turnover ratio would not hold good for the discoms like UPCL wherein the inventory is being maintained not for the purposes of sale, but to meet out the expenses arising in the course of operation. Hence, a customized ratio has been worked upon to analyse the relation between the inventories maintained by the entity and how much of the same is being actually used during the year for meeting the R&M expenses while carrying out the operations of the entity.

The formulae for the same is as follows: R&M Expenses/Average Inventory.

Chart 15: UPCL R&M to Inventory Ratio Trend from FY 2001-02 to FY 2020-21



As can be seen from above graph UPCL is having an average inventory ratio between 0.30 to 0.40, which indicates that almost 40% of the average inventory maintained by the company is being consumed for meeting out the R&M expenses during the year which also suggests that inventory being maintained by UPCL is at a very high level. The capital inventory of Rs. 545.71 Crore as on 31.03.2021 is quite high, which is more than half of the net additions to the GFA of Rs. 797.44 Crore during FY 2020-21 and R&M expenses of Rs. 194.87 Crore during the year. The Commission finds the inventory levels maintained by UPCL as very high.

As can be seen from the above graph, during FY 2015-16, FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 the aforesaid ratio has shown an absurd variation. This is because of the reason that in FY 2015-16, FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 UPCL has shown nil inventory under Current Assets in its audited financial statements, rather it had shown the entire amount under the Fixed Assets as inventory for Capital Works.

In this regard, UPCL has given disclosure in its audited financial statements for showing the entire inventory under Fixed Assets as reproduced below:

"Based on the consumption pattern of inventory comprising of stores and spares in the past, company is of the view that substantial portion of such inventory shall be consumed in future for construction/erection of the capital assets. Since the identification/determination of inventory to be consumed for other than capital purpose is not possible at this stage, the whole inventory of stores and spares has been classified as "Inventory for Capital Works.

The company has not identified any obsolete, slow moving and dead stock except for those lying in the Centralised Stores Division as all the items in the store are usable inspite of the fact that they are very old."

It appears that inventory levels have been so maintained so as to consume them in future for construction/erection of the capital assets. For future consumption maintaining such inventory level is a risky proposition as not only funds are blocked in purchasing the inventory but also the inventories carry holding costs. There is also a risk of loss/damages and obsolescence in technology if the inventories remain in stock for a long period of time as in power sector technologies are evolving with time.

Considering this as a prima-facie lapse on the part of the Petitioner with regard to inventory management, the Petitioner is directed to submit the following details within one month of the date of Order failing which appropriate action will be initiated under the Act:

a) List of inventory as on 31.03.2021.

b) The accounting policies adopted in measuring inventories, including the cost formula used;

c) Basis on which inventories issued: FIFO/LIFO/etc. and reason for choosing the same.

d) Whether any inventory classification, such as ABC analysis has been done? If yes the same may be submitted and if no, reason for the same may be furnished?

e) Whether the inventories are verified physically? If yes, the periodicity of the same, alongwith the report of last physical verification. If physical verification is not being conducted reasons for the same?

7.5.5 *Efficiency Ratio*

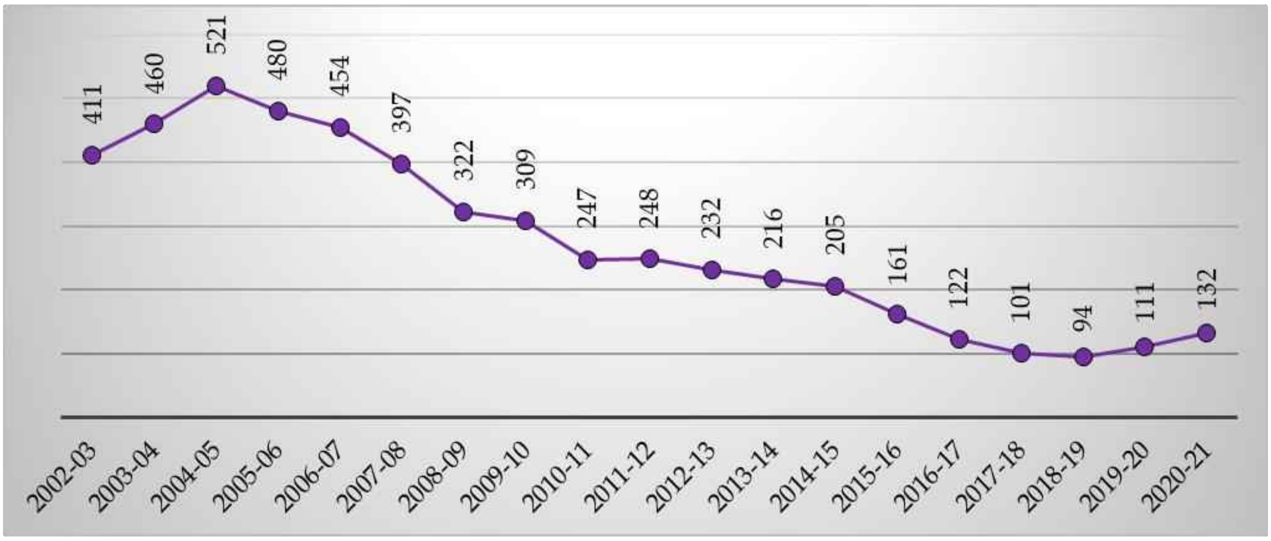
The efficiency ratio is typically used to analyze how well a company uses its assets and liabilities internally. An efficiency ratio can calculate the turnover of receivables, the repayment of liabilities, the quantity and usage of equity, and the general use of inventory and machinery.

7.5.5.1 Average Collection Period

Number of days of receivable represents collection period or age of receivables for distribution utilities. This measures effectiveness of a distribution utilities credit and collection efforts in allowing credit to customers, as well as its ability to collect cash from them. This comparison is used to evaluate how long customers are taking to pay a company. A low figure is considered best, since it means that a business is locking up less of its funds in accounts receivable, and so can use the funds for other purposes. Also, when receivables remain unpaid for a reduced period of time, there is less risk of payment default by customers. It is calculated based on the following formulae:

Average Collection Period: 365x(Average account receivables÷Revenue from sale of power).

Chart 16: UPCL Number of days of Receivable from FY 2002-03 to FY 2020-21



Although, the collection period of receivables of UPCL shows a trend of improvement, it has come down from 520 days in FY 2004-05 to 132 days in FY 2020-21, which is higher than the national average of receivables in FY 2013 of 117 days. The collection period of 132 days reflects that UPCL takes almost 4.4 months to collect its dues. This is an area of concern and needs immediate and corrective action which is not a good sign for utility like UPCL, which is facing cash crunches to meet its obligations of power purchase and other operational expenses. There are other utilities in the country which have a collection period of less than 60 days. **The Petitioner is directed to**

submit within 3 months, an action plan to improve its collection period.

7.5.5.2 *Collection Efficiency Ratio*

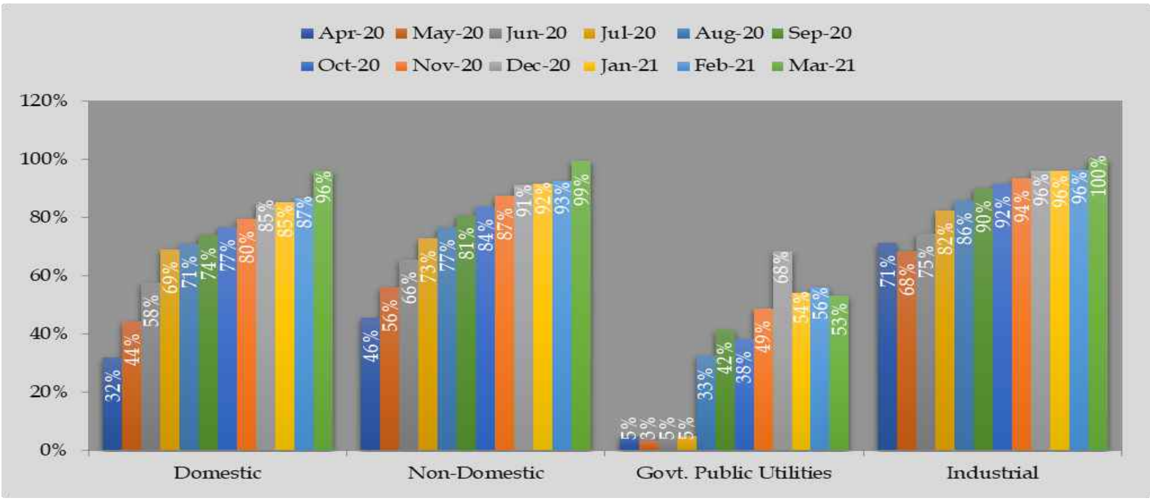
The Collection efficiency ratio represents the efficiency and effectiveness of the dues recovery processes of the entity on periodic basis. With respect to power distribution/retail sector, a higher ratio represents that there are well established procedure for recovery mechanism and the sales of the company are being channelled through metered connections. On the contrary, a lower ratio may represent a very lenient approach of the Corporation in recovering its due from the consumers and lack of stringent processes to deal with the defaulting consumers.

The Commission in its MYT Order dated 27.02.2019, while approving the Business Plan of UPCL for third control period, had approved the collection efficiency for FY 2020-21 as 99.10%.

In the present case, the Commission has calculated the Collection Efficiency ratio of UPCL for FY 2020-21 under the four broad Tariff categories, viz. Domestic Consumers, Non-Domestic Consumers, Industrial Consumers and Govt. Utilities, based on the CS-4 report submitted by UPCL.

The Collection Efficiency ratio has been calculated based on the following formulae = **Realisation of (Current Assessment+Arrears)÷Current Assessment.**

Chart 17: UPCL Collection Efficiency for FY 2020-21



As can be seen from the above graph, compared to overall Collection Efficiency approved by the Commission for FY 2020-21 of 99.10%, UPCL has been able to meet the same only in the month of March'21 in case of Industrial Consumers & Non-Domestic consumers, however, UPCL is barely able to achieve the approved level of collection efficiency for other categories as shown above. Further as can be seen from above, the rising graphs on monthly basis clearly indicates that during the initial months of the year the collection efficiency ranges between 50% to 60%, which is gradually increasing towards the later parts of the year. Moreover, as far as collection from Govt. Utilities is concerned, the same is too lower in the initial months and is ranging in the average of 30%-50% during the year and going upto a maximum of 68% in the month of December'20.

This trend clearly shows that the organization will be facing financial crunches during the initial months due to lack of adequate collection and may have to resort to outside borrowings to meet the cost of operations. This in turn will lead to imposition of additional financial burden on the organization in the form of interest cost and ultimately the effect of inefficiency would have to be borne by the consumers. If proper measures to ensure the timely collection of revenues from the consumers is taken right from the beginning and also timely action against the defaulters are taken then a discipline in collections could be maintained and the required funds to meet the operational needs of the organization would be readily available in the form of revenue from sales at no extra cost.

It has been observed based on the Petitions submitted by the UPCL and also on the basis of audited financial statements of various years, that UPCL has been resorting to over draft (OD) funding at a high rate of interest to meet its operational cost which could surely be avoided if a proper discipline in collection of the assessed revenue is maintained on periodic basis. In this regard, **the Commission directs UPCL to submit a plan to demonstrate as to how it will work in the direction of improving its actual collection so that the gap between the actual collection efficiency and the collection efficiency approved by the Commission may be brought to minimum.**

7.5.6 *Conclusion*

After analyzing the data related to the Petitioner's Commercial Performance, it is concluded that the Petitioner has to take immediate action in eliminating Ghost consumers, Provisional billing cases (NA/NR/IDF), replacing mechanical meters which are adversely inflicting upon the Petitioner's commercial & financial viability.

The performance improvement can be done by judiciously allocating the responsibilities in field as well as at Corporate level. Moreover, the Petitioner should understand the significance of Commercial Performance Monitoring Reporting mechanism and should bring sincerity in its approach towards it. Further, a sense of belongingness/ownership has to be inculcated in every employee of the Petitioner's Organisation.

Further, it is imperative to highlight that the Commercial Performance Reporting mechanism not only brings transparency in the system but also is an eye-opener for the Petitioner for taking timely corrective actions. Therefore, authenticity of reports is of paramount importance. The Petitioner is required to strengthen its Commercial Wing so that timely authentic reports are furnished to the Commission and it shall also help in prompt dissemination of information within the organization which shall be beneficial for the Petitioner as well as for the consumers of the State.

Considering the business spread of the Petitioner among its constituent divisions, the Commission is of the view that performance monitoring of the Petitioner should be done at each of its Distribution Division levels. For this purpose, it is imperative that Division-wise target setting on each parameter should be provided by the Petitioner in the first month of the Fiscal Year itself, so that the whole Technical & Commercial monitoring process becomes meaningful with conclusive inference on quantitative improvement on month on month basis.

8. Commission's Directives

The Commission in its previous Orders had issued a number of specific directions to the Petitioner with an objective of attaining operational efficiency, efficient manpower deployment and streamlining the flow of information. These objectives would be beneficial not only for the sector but also for the Petitioner's Company, both in terms of short-term and long-term perspective. These directions aim at creating a conducive, competitive and healthy environment for the Petitioner to provide good quality of electricity supply and service to the consumers of Uttarakhand at optimum and affordable costs. This Chapter deals with the compliance status and the Commission's views thereon on the directives issued vide APR Order for FY 2020-21 dated April 26, 2021 as well as the summary of new directions (given in preceding Chapters of this Order) for compliance and implementation by the Petitioner.

8.1 Compliance to the Directives Issued in APR Order for FY 2020-21 dated April 26, 2021

8.1.1 *Performance Report*

The Commission directed the Petitioner to submit the monthly Commercial Performance Monitoring reports strictly as per prescribed formats by the 25th day of the following month and quarterly targets as per prescribed formats along with Commercial Performance Monitoring report for the month of April, 2021.

Petitioner's Submissions

The Petitioner submitted that the commercial performance monitoring report in the prescribed formats for the month of March 2020 has been submitted to the Commission vide letter No. 3022/UPCL/RM/CPM, dated October 15, 2020. UPCL vide its petition bearing no. 2072/UPCL/Comm, dated August 05, 2020 requested the Commission to waive off the requirement of submission of these reports due to Covid -19 situation from February, 2020 till resumption of SoPs. The Commission vide its letter no. UERC/5/Tech/ Pet. No. 20 of 2020/714/371, dated July 28, 2021 allowed the waiver and directed for submission of these reports from September 01, 2021. Division-wise quarterly targets for NA/NR/IDF/ADF/RDF/Mechanical Meters/Ghost consumers have been submitted to the Commission vide letter No. 3679/UPCL/RM/CPM , dated September

29, 2021.

The Commission has noted the submissions of the Petitioner. The Commission observes that the Petitioner has not been punctual in its submissions of monthly reports. **Therefore, the Commission directs Petitioner to submit the correct information/data pertaining to monthly Commercial Performance Monitoring reports strictly in the prescribed formats on regular basis, so as to reach the Commission latest by 25th day of the following month and also submit the Quarterly Targets as per prescribed Format - 2 & 3 alongwith the Commercial Performance Monitoring report for the month of April, 2022.**

8.1.2 *Sales*

The Commission directed the Petitioner to record all the sales on assessment basis from FY 2020-21 in proper format with supporting documents, which shall be scrutinized in future tariff filings and inability to furnish such data will attract appropriate action under the Act.

Petitioner's Submission

UPCL vide its letter No. 1313/UPCL/RM/C-14 dated April 04, 2018 directed all its concerned field officers to carry out the corresponding corrections in sales (units) in cases where sales/billing is withdrawn. The instructions to this effect had also been circulated to the field officers vide O.M. dated July 01, 2017.

UPCL vide its letter No. 1885/UPCL/RM/C-17, dated July 14, 2021 again directed all the field officers to comply with the directions of the Commission.

The Commission has noted the submissions of the Petitioner. The Commission as discussed in Chapter 4 of this Order while approving sales for FY 2020-21 observed similar anomalies wherein the ABR for some of the categories was less than the energy charge. The Commission has, therefore, carried out necessary adjustment in the revenue and sales in this regard. **The Commission directs the Petitioner to record all the sales on assessment basis from FY 2021-22 in proper format with supporting documents, which shall be scrutinised in future tariff filings and inability to furnish such data may attract appropriate action under the Act.**

8.1.3 *Load Shedding*

The Commission directed the Petitioner to obtain the prior approval of the Commission for load shedding to be carried out continuously for certain number of hours in a day for 15 or more days.

Petitioner's Submission

The Petitioner submitted that no load shedding has been carried out by UPCL in any area continuously for certain number of hours in a day for 15 or more days. Further, prior approval of the Commission shall be obtained as and when required as per the directions of the Commission. The Petitioner further stated that UPCL has also prepared a policy on power cuts. The policy was approved by the Board of UPCL in the meeting held on July 23, 2015 and submitted the same to the Commission.

The Commission has taken note of the Petitioner's reply. **The Commission, hereby, once again directs the Petitioner to obtain the prior approval of the Commission for load shedding to be carried out continuously for certain number of hours in a day for 15 or more days.**

8.1.4 *AT&C Losses*

The Commission in its APR Order dated April 26, 2021 directed the Petitioner to submit the division-wise target distribution losses for FY 2020-21 and actual distribution losses for FY 2020-21 by June 30, 2021. Further, the Commission directed the Petitioner to submit the division-wise actual collection efficiency achieved during FY 2020-21 by June 30, 2021.

Petitioner's Submissions

The Petitioner in its Petition submitted that the desired information. The target distribution loss, actual distribution loss and actual collection efficiency set by UPCL communicated to the Commission vide above letter are 12.01%, 13.96% and 98.50%, respectively. The Petitioner also submitted that the target distribution loss and collection efficiency approved by the Commission for FY 2020-21 were 14.00% and 99.10%, respectively.

The Commission directs the Petitioner to submit the division-wise target distribution losses for FY 2021-22 and actual distribution losses for FY 2021-22 by June 30, 2022. Further, the Commission directs the Petitioner to submit the division-wise actual collection efficiency achieved during FY 2021-22 by June 30, 2022.

8.1.5 *Power Purchase Quantum and Cost*

The Commission directed the Petitioner to seek prior approval of the Commission, in case the variation in power purchase quantum or power purchase cost in any quarter exceeded by more than 5% of the approved power purchase quantum and cost for the respective quarter worked out on pro-rata basis from the total approved quantity and cost for FY 2020-21.

The Commission directed the Petitioner that it should neither overdraw power at frequency below 49.90 Hz nor resort to load shedding due to improper procurement planning. Further, any drawal below 49.90 Hz shall not be allowed by the Commission.

Petitioner's Submissions

In compliance with the above directions, the Petitioner submitted that the quantum and cost of power purchases in first quarter of FY 2021-22 are within the limit approved by the Commission. Further, the Petitioner submitted that the details of power purchase cost were submitted to the Commission vide UPCL's letter No. 3545/UPCL/CE(Comml)/PP-quarterly data dated September 20, 2021. **The Commission, further, directs the Petitioner to seek prior approval of the Commission, in case the variation in power purchase quantum or total power purchase cost in any quarter exceeds by more than 5% of the approved power purchase quantum and cost for the respective quarter worked out on pro-rata basis from the total approved quantum and cost for FY 2022-23 as indicated in the Table below, failing which, the Commission may disallow power purchases so made while Truing up the ARR for FY 2022-23.**

8.1.6 *Fixed Assets Register*

The Commission directed the Petitioner to submit the Fixed Asset Register updated up to FY 2020-21 within 3 months from the date of this Order.

Petitioner's Submissions

The Petitioner submitted that the work of preparation of Fixed Assets Register for FY 2020-21 was awarded to M/s. RSA & Co. Chartered Accountants, on January 13, 2021 and the work of preparation of Fixed Assets Register for FY 2020-21 is in progress.

The Commission directs the Petitioner to submit the Fixed Asset Register updated up to FY 2020-21 within 3 months from the date of this Order.

8.1.7 *Bad &Doubtful Debts*

The Commission directed the Petitioner to submit action taken report by the concerned distribution divisions on the audit report latest by June 30, 2021.

Petitioner's Submissions

In compliance to the directions issued by the Commission, the action taken report in the matter has been submitted to the Commission vide letter no. 3694/UPCL/CE(Comm.)/UERC, dated 30.09.2021.

8.1.8 *Reliability Indices*

The Commission once again directs the Petitioner to submit the monthly report on Reliability Indices on regular basis.

Petitioner's Submissions

The Petitioner submitted the steps have been taken at Corporate Office to ensure that the said report is submitted to the Commission in a timely manner on a regular basis. The report for the months of February, 2021 has been submitted to the Commission vide letter No. 1169/UPCL/RM/ M-SSM, dated April 17, 2021. The details of SAIFI, SAIDI and MAIFI are as follows:

Table 8.1: Details of SAIFI, SAIDI & MAIFI for April 2018 to August 2020

Particulars	SAIFI (No.)		SAIDI (Minutes)		MAIFI (Minutes)	
	Rural	Urban	Rural	Urban	Rural	Urban
April, 2018	35	23	1120	643	9	7
May, 2018	49	29	1631	883	10	8
June, 2018	47	33	1326	904	11	11
July, 2018	49	35	1350	986	11	11
August, 2018	45	31	1303	917	11	11
September, 2018	43	30	1704	965	9	8
October, 2018	34	23	1182	762	6	7
November, 2018	27	16	825	462	6	6
December, 2018	28	19	848	486	6	6
January, 2019	33	24	1098	654	7	6
February, 2019	32	23	1157	658	7	6
March, 2019	28	20	890	506	7	5
April, 2019	34	25	1244	677	9	6
May, 2019	48	32	1906	950	11	7
June, 2019	49	37	1819	1116	11	9
July, 2019	63	41	1566	996	30	12
August, 2019	43	32	1471	809	11	9

Table 8.1: Details of SAIFI, SAIDI & MAIFI for April 2018 to August 2020

Particulars	SAIFI (No.)		SAIDI (Minutes)		MAIFI (Minutes)	
September, 2019	55	31	1384	745	16	9
October, 2019	45	25	996	676	12	7
November, 2019	39	21	1245	593	13	6
December, 2019	18	15	853	608	7	6
January, 2020	21	18	729	372	7	7
February, 2020	19	12	758	475	4	4
March, 2020	15	9	420	184	6	4
April, 2020	28	18	1006	772	6	5
May, 2020	27	17	857	568	6	4
June, 2020	39	23	1127	789	9	7
July, 2020	41	25	1319	865	19	11
August, 2020	48	32	1440	1006	26	13
September, 20	43	29	1274	883	22	10
October, 20	57	29	1252	822	18	8
November, 20	22	19	1152	730	7	7
December, 20	25	22	1227	814	9	8
January, 21	25	20	1056	358	10	8
February, 21	23	16	574	238	9	5
March, 21	25	18	748	318	8	6

The Commission has noted the Petitioner's reply on Reliability Indices. **The Commission once again directs the Petitioner to submit the monthly report on Reliability Indices on regular basis.**

8.1.9 *Voltage-wise Cost of Supply*

The Commission directed the Petitioner to compute Voltage-wise losses for each category of consumers and submit the data on voltage-wise losses and cost of supply along with next Tariff Petition.

Petitioner's Submissions

The Petitioner submitted that the work of metering has been completed at all 33 kV and 11 kV T-points.

The Petitioner submitted that presently, voltage wise / category wise losses are not available and Category wise Tariff has been calculated on the basis of average cost of supply and permissible level of cross subsidy. This is as per Regulation 91 of the UERC Tariff Regulations, 2021. In the absence of availability of voltage wise losses, which is mix of technical losses and commercial losses, the distribution losses are required to be charged on average basis from all category of consumers as well as open access consumers.

The Commission has noted the Petitioner's reply. **The Commission directs UPCL to compute Voltage-wise losses for each category of consumers and submit the data on voltage-wise losses along with next Tariff Petition.**

8.1.10 *Demand Side Management Measures*

The Commission directed the Petitioner to submit the report on various Demand Side Management measures at regular quarterly intervals to the Commission.

Petitioner's Submissions

The Petitioner submitted that upto March, 2017 a total of 38.845 Lakh LED bulbs have been distributed in the State, out of which, 2.02 Lakh 7 W LED bulbs to BPL consumers and 1.98 Lakh 7 W LED bulbs to other domestic consumers having consumption upto 100 units, have been distributed at subsidized rates. Further, distribution of 9W LED bulbs, 20W LED Tube Light and 50W Energy Efficient Ceiling Fans has also been initiated in the State with effect from April 10, 2017 onwards and the Petitioner submitted the status of the same.

The Commission has taken note of the submissions of the Petitioner. **The Commission, hereby, re-directs the Petitioner to submit the report on various Demand Side Management measures at regular quarterly intervals to the Commission.**

8.1.11 *Deficit/Surplus Power*

The Commission directed the Petitioner to bank the surplus energy available during the months of May 2021 to September 2021 and withdraw the same in the months of October 2021 to March 2022.

Petitioner's Submissions

The Petitioner has submitted a Petition seeking approval of the Commission on draft Energy Banking Agreement for FY 2021-22 was filed vide letter No. 1511, 1512, 1513 and 1514/UPCL/Com /dated June 21, 2021.

The Commission has taken note of the submissions of the Petitioner. **The Commission directs the Petitioner to bank the surplus energy available during the months of May 2022 to**

September 2022 and withdraw the same in the months of October 2022 to March 2023 and seek Commission's approval of such arrangements.

8.1.12 *Status of NA/NR, IDF/ADF/RDF*

The Commission directed the Petitioner to put in its sincere efforts in reducing the percentage NA/NR cases to below 2% in the entire State latest by September 30, 2021, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations would be initiated.

Petitioner's Submissions

UPCL vide its letter No. 1885/UPCL/RM/C-17, dated July 14, 2021 had directed all the field officers to comply with this direction of the Commission, i.e. to restrict percentage NA/NR cases to 2% latest by September 30, 2021 and submitted quarter wise targets of NA and NR cases as 1.42%(end Q2) and 1.34%(end Q3), 1.28%(end Q4). The Petitioner also submitted that the actual status as 2.65% (NA cases) and 2.10% (NR Cases) as on 08.11.2021.

The Commission directs the Petitioner to put in its sincere efforts in maintaining the percentage NA/NR cases to below 2% in the entire State latest by 30.09.2022, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/ Regulations would be initiated.

The Commission again directs the Petitioner to restrict the provisional billing cases within the limit prescribed above as well as in Regulations, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations may be initiated.

8.1.13 *Replacement of Improper, Non-Functional, Stop/Stuck up defective or IDF Meters*

The Commission directed the Petitioner to restrict the percentage defective meters (IDF) to 3% in plains as well as in hilly areas of the State upto June 30, 2021, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations would be initiated.

Petitioner's Submissions

UPCL vide letter No. 1885/UPCL/RM/C-17, dated July 14, 2021, had directed all the field officers to comply with this direction of the Commission, i.e. to restrict percentage of IDF meters to 3%. Further, the Petitioner submitted that the status of defective meters as on November 08, 2021 is at 3.12%.

Therefore, the Commission again directs the Petitioner to restrict percentage defective meters (IDF) to 3%, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) and Executive Engineer (Test) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/Regulations may be initiated. The Commission also directs the Petitioner to submit the status of defective meters for EDC Karanprayag alongwith the other Electricity Distribution Circles in Format-3A from April, 2022 onwards.

8.1.14 *Replacement of Mechanical Meters*

The Commission directed the Petitioner to ensure complete replacement of Mechanical Meters by Electronic Meters well before June 30, 2021, failing which the concerned Chief Engineer (Distribution), Superintending Engineer (Distribution), Executive Engineer (Distribution) shall be held responsible for non-compliance of the Commission's directions and appropriate action under the Act/Rules/ Regulations would be initiated. The Commission directed Company Secretary of UPCL to issue a copy of these directions to concerned officers, as mentioned hereinabove, for information and necessary compliance.

Petitioner's Submissions

UPCL vide its letter No. 1885/UPCL/RM/C-17, dated July 14, 2021 directed all the field officers to comply with this direction of the Commission, i.e. to ensure complete replacement of mechanical meters by electronic meters. Further, the Petitioner, submitted that it has replaced all the mechanical meters by electronic meters.

The Commission has noted the compliance of the Petitioner.

8.1.15 *NB & SB Cases*

The Commission directed the Petitioner to liquidate and finalise atleast 5% of the NB/SB cases in each quarter and submit quarterly report before the Commission. In absence of the same, action under the provisions of Act/Rules/Regulations may be initiated against the Petitioner.

Petitioner's Submissions

UPCL vide its letter No. 1885/UPCL/RM/C-17, dated July 14, 2021 directed all the field officers to liquidate and finalise atleast 5% of NB/SB cases in each quarter. NB/SB cases for the month of March 2020 has been submitted to the Commission vide letter No. 2327/UPCL/RM/CPM, dated August 21, 2020. The total no. of cases as on November 16, 2021 were 1,59,164.

Further, UPCL vide its letter no. 152/UPCL/CE/CCP-II/27/2020-2021(SJ), dated May 22, 2021 issued Letter of Award to M/s S.J. Transformer LLP, Rampur for work of disposal of NB/SB cases in Haridwar Zone (20,713 cases) and Rudrapur Zone (18,813 cases). The work has been targeted to be completed within one year from the date of LoA. Director (Operations) vide its O.M. No. 1971/उपाकालि/निदे0 (परिचालन)/एम–20] dated 22-06-2021 designated the Chief Engineers of the concerned zones as the nodal officer for the assignment.

The Commission again directs the Petitioner to liquidate and finalise atleast 5% of the NB/SB cases in each quarter and submit quarterly report before the Commission. In absence of the same, action under the provisions of Act/Rules/Regulations may be initiated against the Petitioner.

8.1.16 *Outstanding Arrears*

The Commission directed the Petitioner to make sincere efforts in mobilizing its resources throughout the year for collection of Arrears under a structured receivable management programme besides taking corrective actions against the habitual defaulters. The Petitioner was further directed to submit an Action Plan within a month of issuance of Order dated April 26, 2021 including the steps it proposes to take to collect electricity dues from the beginning of the financial year with same vigour as it normally does in the last quarter of the financial year.

Petitioner's Submissions

The Petitioner submitted that with a view to collect revenue uniformly throughout the year, UPCL vide letter dated July 14, 2021 has fixed the monthly revenue collection targets in respect of Non-Govt. categories of the distribution divisions. The collection targets is Rs. 7353.27 Crore, for FY 2021-22. The collection targets for Non-Govt. categories have been fixed as Rs. 450 Crore.

In view of the above, the Commission, hereby, once again directs the Petitioner to make sincere efforts in mobilizing its resources throughout the year for collection of Arrears under a structured receivable management programme besides taking corrective actions against the habitual defaulters. The Petitioner is, hereby, once again directed to submit an Action Plan within a month of issuance of this Order including the steps it proposes to take to collect electricity dues from the beginning of the financial year with same vigour as it normally does in the last quarter of the financial year.

8.1.17 *Status of KCC Consumers*

The Commission directed the Petitioner that KCC consumers having less load factor should be closely monitored and average consumption pattern and abnormality in consumption pattern should be checked and duly analysed. The Commission also directed the Petitioner to check KCC consumers who are repeatedly exceeding their sanctioned/contracted demand and take corrective action in such cases.

Petitioner's Submissions

The Petitioner submitted the MRI status of KCC consumers as follows:

Status	No. of consumers		
	March, 20	March, 21	July, 21
Total Nos. of KCC Consumers	25123	26503	27096
Consumers having load factor more than 75%	616	812	753
Consumers having load factor more than 50%	1625	2045	1801
Consumers having load factor more than 30%	4302	4989	4688
Consumers having load factor more than 20%	7406	8066	7821
Consumers having load factor more than 10%	13507	14221	14302
Consumers having load below 10%	11616	12282	12794
Consumers exceeding sanctioned demand	4856	4655	4657
Consumers having CT by-pass Temper Report	214	380	502
Consumers having PT by-pass Tamper Report	128	372	616
Consumers having unbalanced Tamper Report	317	566	740
Consumers having any other Tamper Report	1412	13520	2004

The Commission directs the Petitioner that KCC consumers having less load factor should be closely monitored and average consumption pattern and abnormality in consumption pattern should be checked and duly analysed. The Commission also directs the Petitioner to check KCC consumers who are repeatedly exceeding their sanctioned/contracted demand and take corrective action in such cases.

8.1.18 *Status of Revenue realisation per unit sold*

The Commission directed the Petitioner to ensure that the data furnished in Commercial Performance Monitoring report should match with its Commercial Diary, i.e. CS-4 data and the Petitioner should ensure that in all future submissions of Commercial Performance Monitoring reports, the Average Realisation Rate should be calculated on the basis of recoveries on account of Realisation Against energy dues only and the realisation shown should exclude recoveries from duties/cess, etc. Further, the realisation against energy dues should clearly bifurcate realisation against current dues and realisation against past dues, failing which appropriate action shall be initiated against the Petitioner/Licensee.

Petitioner's Submissions

The Petitioner submitted that the Formats of Commercial Diary have been revised so as to include the information as desired by the Commission. As per commercial diary for the month of March, 2021, the head wise details of assessment and collection for FY 2020-21 is as follows:

Head	Assessment (Rs. Cr.)	Collection (Rs. Cr.)
Tariff Revenue	6200.62	6343.46
Delayed Payment Surcharge	204.80	85.41
Electricity Duty	360.20	259.89
Green Energy Cess	73.64	47.98
LED Bulb	0.31	0.32
Total	6839.57	6737.06

The Commission again directs the Petitioner to ensure that the data furnished in Commercial Performance Monitoring report should match with its Commercial Diary, i.e. CS-4 data and the Petitioner should ensure that in all future submissions of Commercial Performance Monitoring reports the Average Realisation Rate should be calculated on the basis of recoveries on account of Realisation Against energy dues only and the realisation shown should exclude recoveries from duties/cess, etc. Further, the realisation against energy dues should clearly bifurcate realisation against current dues and realisation against past dues, failing which appropriate action shall be initiated against the Petitioner/Licensee.

8.1.19 *Billing and Collection System*

The Commission directed the Petitioner to complete the works of bill collection facilities and integration of all CSCs in the State latest by September 30, 2021, in absence of which, without prejudice to earlier penal actions, stern action under the provisions of the Act/Rules/Regulations would be initiated against it. Further, the Commission directed the Petitioner to make widespread publicity/Advertisement/workshop of the bill collection facilities and list of VLEs operating in the vicinity of various electricity Sub-division/division officers of UPCL across the State.

Petitioner's Submissions

The Petitioner submitted the status of construction of bill collection centre as on December 22, 2021 as follows:

Package–A (Garhwal Zone): Under this package, Collection centre facilities were to be provided in 52 Centres of 04 Electricity Distribution Circles. At 52 centres, the work is completed.

Package–B (Haridwar Zone): Under this package, Collection centre facilities were to be provided in 22 Centres of 02 Electricity Distribution Circles and all the 22 centres work is completed.

Package–C (Kumaun Zone): Under this package, Collection centre facilities were to be provided in 65 Centres of 03 Electricity Distribution Circles. At 37 centres the work is completed. In 6 centers, the work is in progress. In remaining 22 centres, the work progress is nil and contractor has requested to allow time up to 31.12.2021.

Package-D (Rudrapur Zone): Under this package, Collection centre facilities were to be provided in 18 Centres of 02 Electricity Distribution Circles. The work has been completed at all the 18 centres.

UPCL submitted that they are taking all measures to promote the payment of electricity bills by the consumers to be paid through the CSC counters by sending the bulk SMS to all the consumers whose mobile nos. are registered with UPCL consumer data base. UPCL and M/s CSC both are conducting the promotional activities and making efforts to increase the no. of transactions.

As regards widespread publicity/advertisement/workshop of the bill collection facilities, UPCL submitted that following measure are taken at the end of various wings of UPCL for bill collection facility at CSC counters (VLEs):

- Payment option printed on back side of paper bills includes information of bill payment through CSC.
- SMS sent to consumers regarding digital mode of payments also states about CSC payment option from time to time.
- UPCL website also shows the CSC mode of payment.
- Flex/Pamplets at Division / Sub Division offices printed by EE (CM) have already been circulated by him as per directions from commercial wing.

The Commission has noted the submission of the Petitioner in this regard. the Petitioner is directed to complete the balance works of construction of Bill Collection Centers and ensure integration of all CSCs in the State latest by 31.07.2022, in the absence of which, without prejudice to earlier penal actions, stern action under the provisions of the Act/ Rules/Regulations would be initiated against it. Further, the Commission directs the Petitioner to make widespread publicity/Advertisement/workshop of the bill collection facilities & list of VLEs operating in the vicinity of various electricity Sub-division/division officers of UPCL across the State.

8.1.20 *Departmental Employees*

The Commission directed the Petitioner to reconcile the figures of departmental employees in the commercial data as well as that claimed for calculation of employee expenses and submit the same to the Commission within 2 months of the date of the Order. As regards the concession provided to these consumers, the Petitioner is directed to show the same separately as expenses in its accounts.

The Petitioner was further directed to ensure compliance of the directions of the Commission given in the Tariff Order dated March 21, 2018 in this regard failing which action may be taken against it for non-compliance of the orders of the Commission.

Petitioner's Submissions

In this connection, UPCL submitted that the directions issued by the Commission were circulated to all the concerned officers for compliance vide letter no. 1855/UPCL/RM/C-17, dated 14-07-2021. Further, UPCL vide its letter no. 1907/UPCL/RM/C-17, dated 15-07-2021 specifically directed all its concerned field officers to ensure that the information in respect of departmental employees/pensioners in commercial diary should be matched with the data in R-APDRP billing software. Further, system has been developed in the accounting system that the concession in electricity provided to the departmental employees is shown separately as an expense.

The above compliance status has been reported to the Commission vide UPCL's letter no. 1908/UPCL/RM/C-17, dated 15-07-2021.

UPCL submitted that as per Annual Accounts for FY 2020-21, the concession in electricity provided by UPCL to its employees and pensioners is Rs. 10.20 Crore.

The Commission once again directs the Petitioner to reconcile the figures of departmental employees in the commercial data as well as that claimed for calculation of employee expenses in future filings. As regards the concession provided to these consumers, the Petitioner is directed to show the same separately as expenses in its accounts.

UPCL is once again directed to ensure compliance of the directions of Commission given in the Tariff Order dated March 21, 2018 in this regard failing which action may be taken against it for non-compliance of the orders of the Commission.

8.1.21 *Location of Installation of Meters*

The Commission vide Order dated April 26, 2021 observed that the performance of the two divisions, EDD Kotdwar and EDD (Town) Haldwani has not been satisfactory and they were directed to expedite the same and ensure that all the meters are shifted by March 31, 2022. The Commission directed the Petitioner to submit quarterly status report with regards to shifting of meters for all divisions to the Commission.

Petitioner's Submissions

UPCL vide its letter No. 1885 /UPCL/RM/C-17, dated July 14, 2021 and letter No. 1888 /UPCL/RM/C-17, dated July 14, 2021 directed all the field officers to ensure compliance to the Commission's direction.

The Commission has noted the submission of the Petitioner in this regard. The Commission directs the Petitioner to submit quarterly status report with regards to shifting of meters for all divisions to the Commission.

8.1.22 *Bad Debt*

The Commission directed the Petitioner to account its billing adjustment and writing off the bad debts properly in accordance with the accounting policies. The Commission also directed the Petitioner to submit the consumer-wise details of bad debts written off within one month from the end of each quarter.

Petitioner's Submissions

The Petitioner submitted that billing adjustment and writing off bad debts are being accounted for in the accounts in accordance with the accounting policy. Any amount of billing, which has to be withdrawn by UPCL at the direction of Courts/Forums or if found incorrect, is adjusted from the provision for bad and doubtful debts as per the accounting practices in other Distribution Companies. The Petitioner further submitted, category wise details of bad debts written off during FY 2020-21, and the total amount of the same was Rs. 132.15 Crore. The Petitioner also submitted that the Commission vide letter dated 12.10.2021 has approved the policy and action taken as per the provisions of the policy for writing off bad and doubtful debts.

The Commission has gone through the submissions of the Petitioner and observes that the

Petitioner has failed to submit any specific approval of its BoD for writing off Bad Debts and therefore has not considered the same in the current proceedings. Merely mentioning that the financial statements have been approved by its BoD and hence, write offs have also been approved is devoid of merits. When a particular action requires specific approval of BoD, the same has to be taken specifically and it cannot be inferred that the approval has been accorded indirectly. Moreover, the Commission has in its past tariff orders held that any surcharge waiver will have to be borne by UPCL and it cannot be allowed to be passed on to the consumers. Thus, the Commission **directs UPCL to submit the details of bad debts year wise giving separate details of surcharge waived off. The Commission shall consider the same once specific approvals are submitted in future tariff filings along with the requisite details.**

8.1.23 *Impact of VII Pay Commission*

The Commission directed the Petitioner to maintain separate details of the amount paid as arrears to its employees on account of implementation of the recommendations of VII Pay Commission. The Petitioner was also directed to submit the impact of pay revision separately in its true up claim for the ensuing years.

Petitioner's Submissions

The Petitioner submitted that it has provided a sum of Rs. 37.65 Crore towards VII Pay Commission in its books of Accounts for FY 2016-17 (for 15 months, i.e. for the period January 2016 to March 2017). Rs. 20.64 Crore was paid in FY 2017-18. Arrears for the period July 1, 2016 to December 31, 2016 amounting to Rs. 15.06 Crore and arrears of Rs. 1.95 Crore payable to pensioners was paid in FY 2018-19.

The Commission has noted down the submission of the Petitioner in this regard. The Petitioner is directed to maintain separate details of the amount paid as arrears to its employees on account of implementation of the recommendations of VII Pay Commission. The Petitioner is further directed to submit the impact of pay revision separately in its true-up claims for the ensuing years.

8.1.24 *Conductor Augmentation*

The Petitioner was directed to identify such feeders/spans where the power distribution network is on GI wire and replace them with ACSR or better conductors latest by September 30, 2021 and submit a compliance report under affidavit on the same. The Petitioner was also directed to prepare and submit an action plan for checking and refurbishment of protection systems at various 33/11 kV substations latest by June 30, 2021.

Petitioner's Submissions

The Petitioner submitted that UPCL vide its letter No. 1885/UPCL/RM/C-17 dated July 14, 2021 directed all the field officers to comply with the above direction, i.e. to identify such feeders/spans where the power distribution network is on GI wire and to replace the same with ACSR or better conductor.

The Petitioner submitted that the work of CT and PT replacement at interface points has been taken up by UPCL, which is under progress and will be completed very soon and also submitted circle-wise status of the same.

The protection system of 33/11 kV substation gets checked periodically and at some places like Roorkee, Haridwar and Haldwani, AMC has also been awarded so that protection would work properly.

The Commission has noted the submissions of the Petitioner in this regard. The Petitioner is again directed to identify such feeders/spans where the power distribution network is on GI wire and replace them with the ACSR or better conductors latest by September 30, 2022 and submit a compliance report under affidavit on the same. The Petitioner is also directed to prepare and submit an action plan for checking and refurbishment of protection systems at various 33/11 kV substations latest by June 30, 2022.

8.1.25 *Scrutiny of KCC Data*

The Commission directed UPCL to constitute a cell in its commercial wing for analysis and monitoring of KCC data including low load factor cases, meter tamper cases, etc. The Commission directed UPCL to submit the report on analysis and monitoring of KCC data on monthly basis by 15th of every month.

Petitioner's Submissions

After due approval from the Commission, UPCL vide its letter No. 1674/UPCL/CE/CCP-

II/14/2018-19 (Mobineers)/Part-(b), dated March 01, 2019 awarded the work for one-year monthly meter data analysis of various reports of 8000 consumers to M/s Mobineers Info Systems Pvt. Ltd., New Delhi. The said work was extended for one more year vide UPCL's letter no. 1532/UPCL/ CE/CCP-II/14/2018-19 (Mobineers)/Part-(b), dated March 10, 2021. The data analysis shall cover the following attributes:

- Tamper analysis by way of PT missing, CT short, CT open, CT interchange/reversal, voltage imbalance, current imbalance, neutral disturbed, power failure, magnetic tamper, transactions, 35 kV spark Test, Cover open temper, high voltage/frequency surges.
- Percentage slots for which demand is less than a given percentage when demand is available (Default 5%).
- Percentage black out slots when power is available.
- Current month consumption vs. last month consumption or current month consumption vs. that of same month in the previous year is less than given percentage (Default 20%).
- Contract demand violation.
- Number of slots for which power factor is less than or more than or in between for a given value.
- Consumption vis-a-vis usage index for the industry (process) wise, based on the data provided. Process-wise load factor will be provided to vendor.
- Ratio of Average/contracted demand, maximum/contracted demand, average/ maximum demand, average demand shall be calculated for the number of months as specified from time to time.
- Double meter/Main meter/Independent feeder meter/Net Off meter/Bi-directional meter/ABT meter comparison difference of load survey data for every 30 minutes/15 minutes slot on per day and per month basis demand and consumption is more than given percentage (Default 3%) for entire months.
- Consumption comparison of main meter with check meter/other end meter in terms of kWh, kVAh, MD on each and every month is to be compiled and checked and if

difference of main meter w.r.t. check meter/other end meter is more/less than the standardised value or as fixed by UPCL, the check-out list is to be submitted.

- Any other comparison, detail, analysis, report, etc., in desired format of UPCL from time to time for desired period and in desired timeline shall mandatorily be provided by the contractor.
- Complete analysis of all the consumers' along with reports, recommendations/ comments in desired formats complete in all respect shall be submitted by bidder not later than 25th of every month.

The Petitioner also submitted MRI status of KCC consumers for the month of March 2021 and July 2021.

The Commission has noted the submission made by the Petitioner on scrutiny of KCC data. **The Commission directs UPCL to continue monitoring of KCC data including low load factor cases, meter tamper cases, etc. The Commission also directs UPCL to submit a report on analysis and monitoring of KCC data on monthly basis by 25th of every month.**

8.1.26 *Collection Efficiency*

The Commission directed UPCL to submit the month-wise division-wise details of collection of dues by the 15th of the next month and that action under the Act may be taken against the Executive Engineer of those divisions who are found in default of making collections less than the approved collection efficiency.

Petitioner's Submissions

The Petitioner submitted that the month-wise and division-wise revenue collection for the period from April, 2021 to November, 2021.

Further, the Petitioner also submitted the division wise status of actual revenue collection as against the target fixed by corporate office of UPCL in respect of non-Government categories.

The Commission has noted the Petitioner's submission in this regard. **The Commission directs UPCL to submit the month-wise division-wise details of collection of dues by the 15th of the next month and action under the Act may be taken against the Executive Engineer of those divisions who are found in default of making collections less than the approved collection**

efficiency.

8.1.27 *Procurement of Deficit Energy*

The Petitioner was directed to prepare its power purchase plan for the next year and initiate the bidding process to meet the deficit, if any.

The Petitioner was directed to submit an action plan in this regard within 15 days of the date of Order dated April 26, 2021. The Petitioner is also directed to ensure compliance of the Regulations issued by the Commission from time to time, failing which any consequent liability would be to the account of the Petitioner.

Petitioner's Submissions

UPCL submitted that it has prepared projection of demand upto the year 2023-24. Further, in order to cater increasing demand, UPCL has tied up long-term PPAs with Central Sector Generating Stations and UJVN Ltd.

The Petitioner further submitted that apart from catering to demand from these long-term PPAs, any additional demand is being catered by Short-Term purchase through DEEP Portal and Power Exchange.

The Petitioner further submitted that the detailed power procurement plan and energy availability for FY 2021-22, FY 2022-23 and FY 2023-24.

The Commission has noted the Petitioner's submission in this regard. **In view of persistent deficit scenario during the Control Period, the Petitioner should put its sincere efforts to procure the deficit energy optimizing the cost of power purchase and reliable power. Further, the procurement should be through transparent process of bidding.**

The Petitioner is directed to prepare its power purchase plan for the next three years and initiate the bidding process to meet the deficit, if any. The Petitioner is directed to submit an action plan in this regard within 15 days of the date of Order. The Petitioner is also directed to ensure compliance of the Regulations issued by the Commission from time to time, failing which any consequent liability would be to the account of the Petitioner.

8.1.28 *Depreciation*

The Commission directed the Petitioner to claim depreciation in line with its practice followed in the accounts as it capitalises the assets on the last day of the Financial Year or submit proper justification that the accounting policy has changed.

Petitioner's Submissions

The Petitioner has submitted that Depreciation is charged as per the under mentioned policy of UPCL:

> "*Depreciation is to be charged on pro rata basis on the assets acquired or disposed during the year. Accordingly, depreciation on additions to Fixed Assets during the year is charged on pro rata basis from next month in which the asset is available for use and depreciation on deductions/deletions during the year is charged upto the month in which the asset is disposed/deleted*"

Depreciation is being computed in the Books of Accounts of UPCL from F.Y. 2019-20 as per the directions of the BOD as per the above mentioned policy.

The Commission finds no justification to depart from the practice adopted in the previous Tariff Orders of allowing depreciation on the opening balance of GFA. **The Commission directs the Petitioner to claim depreciation in line with its practice followed in the accounts as it capitalises the assets on the last day of the Financial Year or submit proper justification that the accounting policy has changed.**

8.1.29 *Energy Audit*

The Petitioner was directed to provide/maintain the metering system at each feeder, 'T' points, DTs and consumers in its distribution network for effective energy auditing and accounting. The Petitioner was directed to submit compliance report in this regard by September 30, 2021, failing which appropriate action may be taken against the Petitioner in accordance with the Act/Rules/Regulations.

Petitioner's Submissions

The Petitioner submitted that metering has been completed at all 33 kV substations up to 11 kV and are being maintained and 11,602 DTs have been metered under IPDS/R-APDRP scheme and are being maintained.

The Petitioner further submitted the efforts for implementation of meter data management, energy audit system and in implementation of Smart Metering projects as discussed in Chapter – Review of Commercial Performance of UPCL of this Order.

The Commission has noted the progress made by the Petitioner w.r.t. metering. However, the Commission is of the view that keeping weak links, i.e. unmetered/faulty meter nodes in the distribution network would make the entire exercise of energy audit as futile as correct energy accounting and audit is not possible with incomplete/faulty metering in the 33 kV & 11 kV distribution network.

Therefore, the Petitioner is directed to provide/maintain the metering system at each feeder, 'T' points, DTs and consumers in its distribution network for effective energy auditing and accounting. The Petitioner is directed to submit compliance report in this regard by 30.09.2022, failing which appropriate action may be taken against the Petitioner in accordance with the Act/Rules/Regulations.

8.1.30 *Analysis of Current Liabilities*

The Petitioner was directed to carry out the age-wise analysis of its current liabilities outstanding as on March 31, 2021 and based on the ageing analysis determine how much of the same would be required to be discharged and how much excess provision exists in the same so that the same may be reversed and submit the same to the Commission within 3 months from the date of Order.

Petitioner's Submissions

The Petitioner submitted that the age-wise position of creditors for power purchase as on 31-03-2020 and 31-03-2021 is as follows:

Age-wise Creditors as submitted by the Petitioner

Age	31-03-2020 (Rs. Crore)	31-03-2021 (Rs. Crore)
Age 0 to 3 months	1254.05	516.47
Age 3 to 6 months	17.23	2.99
Age more than 6 months	186.89	133.73
Total	1458.17	**653.19**

The Petitioner also submitted that during FY 2019-20, liability for power purchase dues of Rs. 65.10 Crore toward UPRVUNL and UPJVNL till 08.11.2001 as per the transfer scheme with UPCL was written off.

The Commission has examined the compliance submitted by the Petitioner. **The Petitioner is directed to carry out the age-wise analysis of its current liabilities outstanding as on 31.03.2021 and based on the ageing analysis determine how much of the same would be required to be discharged and how much excess provision exists in the same so that the same may be reversed and submit the same to the Commission within 3 months from the date of Order.**

8.1.31 *Average Collection Period and Collection Efficiency Ratio*

The Petitioner was directed to submit within 3 months, an action plan to improve its collection period.

The Commission directed UPCL to submit a plan to demonstrate as to how it will work in the direction of improving its actual collection even during initial quarters during a financial year so that the gap between the actual collection efficiency and the collection efficiency approved by the Commission may be brought to minimum.

Petitioner's Submissions

The Petitioner submitted that with a view to achieve higher collection efficiency and lower distribution losses than that approved by the Commission, UPCL vide its letter No. 1902 dated July 14, 2021 fixed the targets of distribution losses at 12.50%, collection target at Rs. 7803 Crore, AT&C Losses at 14.00% for FY 2021-22.

The Petitioner submitted that Monitoring of above collection targets is being done at Corporate Office and on the basis of energy received during the previous month, revenue collection targets for the next month are being communicated to the field units by Corporate Office.

UPCL vide its letter no. 4542/MD/UPCL/I-7, dated 01-05-2019 also fixed the monthly targets of the officers at various levels for checking of consumers, study of consumers as vigilance checks.

For recovery of outstanding arrears, UPCL submitted that the connections of defaulting consumers are being disconnected and notices under Section 3 & 5 of the Uttarakhand (U.P. Government Electricity undertakings (Dues Recovery) Act, 1958) Adaptation and Modification order, 2002 are being issued regularly and the same shall be taken-up more promptly for ensuing early recovery of outstanding arrears.

The Commission has noted the Petitioner's submission in this regard. **The Petitioner is directed to submit within 3 months, an action plan to improve its collection period.**

The Commission directs UPCL to submit a plan to demonstrate as to how it will work in the direction of improving its actual collection so that the gap between the actual collection efficiency and the collection efficiency approved by the Commission may be brought to minimum.

8.1.32 *Inventory Management*

The Petitioner was directed to submit the following details within one month of the date of Order failing which appropriate action will be initiated under the Act:

a) List of inventory as on 31.03.2021;
b) Whether any inventory classification, such as ABC analysis was done? If yes, the same may be submitted and if no, reason for the same may be furnished;
c) Report of Last physical verification.

Petitioner's Submissions

The Petitioner submitted the list of desired information vide letter no. 3652/UPCL/RM/C-17 dated 27.09.2021.

The Commission has noted the Petitioner's submission in this regard. As discussed in Chapter – Review of Commercial Performance of UPCL, **the Petitioner is directed to submit the following details within one month of the date of Order failing which appropriate action will be initiated under the Act:**

a) List of inventory as on 31.03.2021.
b) The accounting policies adopted in measuring inventories, including the cost formula used;
c) Basis on which inventories issued: FIFO/LIFO/etc. and reason for choosing the same.
d) Whether any inventory classification, such as ABC analysis has been done? If yes the same may be submitted and if no, reason for the same may be furnished?
e) Whether the inventories are verified physically? If yes, the periodicity of the same, alongwith the report of last physical verification. If physical verification is not being conducted reasons for the same?

8.1.33 *Improvement of Metering and Billing System*

The Commission, considering the views of Petitioner and also of the consumers directed the Petitioner to ensure that the bills are delivered to consumers on time and due date for payment of bills should be specified at least 15 days from the date of delivery of bills to the consumers and not from the date of generation of bills.

Petitioner's Submissions

As per direction of the Commission bills are being delivered to the consumers on time and the consumers are being allowed clear 15 days' time for making the payment of the bills.

The Commission has noted the Petitioner's submission in this regard. The Commission directs the Petitioner to ensure that the bills are delivered to consumers on time and due date for payment of bills should be specified at least 15 days from the date of delivery of bills to the consumers and not from the date of generation of bills.

8.1.34 *Proposal for Consultancy Assignments*

The Commission directed the Petitioner to refrain from carrying out ineffective consultancies, which merely increases its expenditure. The Petitioner was required to make a proper proposal requiring consultancy assignments to be carried out and the benefits that would accrue from the same and then weigh the cost with the benefits failing which the Commission would be constrained to disallow the costs of such assignments.

Petitioner's Submissions

The Petitioner submitted that UPCL vide its letter No. 1885/UPCL/RM/C-17, dated July 14, 2021 directed all the field officers to comply with the direction of the Commission.

The Commission has noted the Petitioner's submission in this regard. **The Petitioner is directed to refrain from carrying out ineffective consultancies, which merely increases its expenditure. The Petitioner is required to make a proper proposal requiring consultancy assignments to be carried out and the benefits that would accrue from the same and then weigh the cost with the benefits failing which the Commission will be constrained to disallow the costs of such assignments.**

8.1.35 *Capitalisation of Assets*

The Commission was of the view that unless the complete capitalisation details for FY 2016-17 and FY 2017-18 were provided, truing up for these years shall not be done. The Commission had, however, allowed the impact of capitalisation details submitted for FY 2016-17 and FY 2017-18 in the truing up for FY 2018-19. Moreover, the Petitioner was directed to properly account for these provisions in appropriate heads of accounts.

The Commission also directed the Petitioner to submit the complete requisite information within 6 months from the date of this Order or otherwise, the Commission shall not allow the disallowed capitalization for FY 2019-20.

Petitioner's Submissions

The Petitioner submitted that the complete capitalization details for FY 2020-21 along with pending capitalization details with the certificates of Electrical Inspector shall be provided to the Commission by 30-11-2021.

As regards properly accounting of expenditure, it is submitted that UPCL vide its O.M. No. 1507/UPCL/GM (F), dated 06-08-2020 created the following heads of accounts to identify the revenue expenditure incurred on computers / hardware and software license renewal:

Accounting Head	Description	Remarks
74.806	Computers / Hardware	The booking of "AMC of Hardware" is to be done under the head 74.806 which already exists in the Chart of Accounts.
74.807	Software License Renewal	The booking of "Software License Renewal" is to be done under the newly created head of account 74.807.

It was observed that the Petitioner did not comply with the above. The Commission in the current proceedings vide its letter dated February 22, 2022, provided the Petitioner another opportunity to remedy the above. The Petitioner, however, could not remedy the above defects.

It was observed that the Petitioner on one hand is making submissions before the Commission that it is facing severe cash flow issues and on the other hand it is falling behind in claiming ARR by furnishing proper capitalisation details. This exhibits a callous and indifferent approach in complying with the directions of the Commission. Since, the delay is on account of the inefficiency of the Petitioner, hence, no carrying cost will be allowed to the Petitioner for delayed approval of pending capitalisation of FY 2016-17, FY 2017-18, FY 2018-19 & FY 2019-20. The Commission is further of the view that unless the complete capitalisation details for FY 2016-17 to FY 2019-20 is provided, truing up for these years shall not be done.

8.1.36 *Open Access Charges*

The Petitioner was directed that the wheeling charges and cross subsidy surcharge recovered from open access customers shall be shown separately under the separate head of income in its ARR/Tariff filings.

Petitioner's Submissions

The Petitioner submitted that vide its Office Memorandum No. 424/UPCL/DGM(F)/AH, dated 20-05-2016 had created the following heads of accounts to capture the separate information of wheeling charges and cross subsidy surcharge:

Information submitted by Petitioner in compliance of directive on open access charges

Accounting Head	Description
23.711	Wheeling charges
23.712	Cross subsidy surcharge
61.511	Wheeling charges (L&H Power above 100 HP)
61.512	Cross subsidy surcharge (L&H Power above 100 HP)

Further, UPCL vide its O.M. No. 51/UPCL/DGM(F), dated 17-07-2021 has created the following heads of accounts to capture the separate information of Additional Surcharge on Open Access Energy:

Accounting Head	Description
23.712A	Additional Surcharge
61.512A	Additional Surcharge (L&H Power above 100 HP)

The Petitioner submitted that as such the said information have been captured separately in the financial statements for FY 2020-21 and accordingly the same shall be included in the True – up petition for FY 2020-21.

The Commission noted the Petitioner's submission in this regard **and directs that the wheeling charges and cross subsidy surcharge recovered from open access customers shall be shown separately under the separate head of income in its ARR/Tariff filings.**

8.1.37 *KCC Data*

The Commission directed UPCL to constitute a cell in its commercial wing for analysis and monitoring of KCC data including low load factor cases, meter tamper cases, etc. The Commission also directed UPCL to submit the report on analysis and monitoring of KCC data on monthly basis by 15th of every month.

The Commission has noted the submission made by the Petitioner on KCC data under Section of Scrutiny of KCC Data of this Chapter. **The Commission directs UPCL to constitute a cell in its commercial wing for analysis and monitoring of KCC data including low load factor cases, meter tamper cases, etc. The Commission also directs UPCL to submit a report on analysis and monitoring of KCC data on monthly basis by 25th of every month.**

8.1.38 *Review of peak hours*

The Commission directed to estimate the impact assessment of cost of power during peak/ off peak hours and charge it collects/spends against the same and submit the same along with next Tariff Petition.

Petitioner's Submissions

The Petitioner submitted that the cost of power purchase during peak hours is quite high. The Commission had introduced Time of Day (ToD) tariff wherein peak hour consumption is charged at higher rates which reflect the higher cost of power purchase during peak hours. At the same time, a rebate is being offered on consumption during off-peak hours.

UPCL referred to latest months' power purchase information traded at IEX for Northern Region as a whole. The Petitioner submitted that data for Jan-March 2021 (for winter season) and June-Aug 2021 (for summer season) has been considered for peak and off-peak prices.

Month	Season & Peak period	Average Peak Price at IEX (Rs/unit)	Average Off-peak Price at IEX (Rs/unit)
January 2021	Winter (Morning)	3.85	2.06
	Winter (Evening)	3.76	
February 2021	Winter (Morning)	4.37	2.40
	Winter (Evening)	3.98	
March 2021	Winter (Morning)	3.83	3.59
	Winter (Evening)	5.10	
June 2021	Summer (Evening)	4.14	3.35
July 2021	Summer (Evening)	4.14	3.10
August 2021	Summer (Evening)	8.66	4.65

The Petitioner submitted that the data is of entire northern region and there are lot of variations in the prices during each of the time blocks of the season depending upon the consumption pattern of each consumer. The Petitioner submitted that it cannot be said that all consumers under TOD regime are consuming continuously & simultaneously for all peak/ off-peak hours across the year. The consumption is intermittent and only at certain point of time block some consumers may be simultaneously consuming the power in same time block. It is during this time block the load shoots up and power purchase rate goes up more than average prices.

Month	Both Peak Price Range (Rs./kWh)	No. of Time Blocks where peak price range occurred	Total No. Time Blocks in a month	Ratio
Winter				
Jan-21	5.00 to 6.50	279	2976	9%
Feb-21	5.92 to 7.91	252	2688	9%
Mar-21	5.90 to 9.25	496	2976	17%
Summer				
Jun-21	5.00 to 9.67	510	2880	18%
Jul-21	5.70 to 10.47	390	2976	13%
Aug-21	9.78 to 20.00	620	2976	21%

As can be seen the power purchase price during peak period has been around Rs. 6-10 per unit for more than 15% in a month. Hence, the Petitioner submitted that correlating TOD tariff with average prices may not be correct indicator.

The Petitioner further submitted that ToD tariffs may not be seen in isolation as it is one of the component of the overall tariff structure and may not be compared with only 1 State. There are other reliefs in terms of lower energy charges, lower demand charges, low load factor provisions etc. in Uttarakhand when compared to other states. As can be seen the neighboring states like Uttar Pradesh and Haryana have higher normal energy charges as well as peak charges compared to UPCL. Even states like Bihar and Maharashtra have higher tariffs compared to UPCL.

The Petitioner further submitted that arranging for additional power on Round the Clock (RTC) basis for deficit quantum during such peak period would be wasteful investment and at the same time additional burden on the consumers in terms of Fixed charges obligation. This would also result in problem for managing surplus power so created by such additional PPAs. Such additional generation capacity at national level will impact or need transmission capacity which will be burden on consumers of other states also.

Hence in view of the two factors, i.e. to compensate the licensee for scheduling costlier power during peak hours and secondly to contain the demand within available peak capacity, UPCL submitted that present TOD tariffs may be continued till load curve improves and DSM is achieved by consumers in true spirit.

The Commission has noted the submissions of the Petitioner in this regard.

8.1.39 *Provisions for Bad and Doubtful Debts*

The Commission directed UPCL to submit the list of industries (both LT & HT) on whom the arrears are due having age more than 5 years within 6 months of the date of the Order. UPCL is also directed to reconcile the dues pending with railways within 6 months of the date of the Order and submit the compliance before the Commission. UPCL is also directed to raise the issue of pending dues on Government connections like Public Lamps, Public Water Works and GIS and settle the dues before the end of FY 2019-20.

Petitioner's Submission

The Petitioner submitted circle wise details of arrears having age more than 5 years (the consumers who have made payment since last 5 years). Further, the information in respect of all the distribution divisions has been provided to the Commission vide UPCL's letter no. 2023/UPCL/RM/C-17, dated 24-07-2021.

UPCL is regularly perusing for payment of electricity dues from GoU and GoU has made the following payments so far:

Jal Sansthan	:	Rs. 170.00 Cr.
Government Irrigation System	:	Rs. 63.01 Cr.

The Commission has noted the submissions of Petitioner in this regard. **UPCL is again directed to reconcile the dues pending with railways within 6 months of the date of the Order and submit the compliance before the Commission. UPCL is also directed to raise the issue of pending dues regularly on Government connections like Public Lamps, Public Water Works and GIS and settle the dues.**

8.1.40 *O&M Expenses*

The Commission directed UPCL to take note of the suggestions given by the stakeholder of granting a fixed allowance to the staff of UPCL in lieu of official vehicle and also review the present practice being followed by it for allocating official vehicle to its officers and staff. UPCL was also required to submit its report on the same within 2 month of the date of Order.

Petitioner's Submission

Keeping in view the requirement of the job, departmental vehicles are provided to the designated officers of the Company for necessary and effective performance of duties.

The Commission has noted the submission of the Petitioner. However, UPCL was also required to submit its report on the same within 2 month of the date of Order dated 26.04.2021. The same is to be submitted at the earliest.

8.1.41 *Cost of power purchase to meet deficit*

The Commission directed UPCL to ensure that actual power purchase cost to meet the deficit should not exceed the rate given by the Commission in the relevant Tariff Orders at State periphery. Any procurement over and above the rate at the State periphery approved by the Commission shall be disallowed unless prior approval for the same is sought by UPCL.

Petitioner's Submission

The Petitioner submitted that average rate of power purchase from IEX is Rs. 3.35 per unit (847.33 MU at a cost of Rs. 284.23 Cr.) which is lower than the average rate (Rs. 4.00 per unit) of power purchase of deficit energy approved by the Commission.

In addition to above, 100 MW (RTC) power is being procured through DEEP portal for the month of October, 2021 @ Rs. 3.74 per unit.

Further, keeping in view the deficit of power in the Country, the Commission on the request of UPCL, granted in principle approval for procurement of the power as follows:

Source	October, 21	November, 21		December, 21	
	TPTCL through Tata Power, Haldia	NVVNL through KSK Mahanandi Power Company, Chhatisgarh	TPTCL through Tata Power, Haldia	TPTCL through Tata Power, Haldia	PTC through SKS Power, Chhatisgarh
Offered Quantum (MW)	75	50	80	80	50
Offered Price (Rs./unit)	6.0	5.38	5.38	4.90	4.90

The Commission has noted the submission of the Petitioner in this regard. **However, the Commission directs UPCL to ensure that actual power purchase to meet the deficit should not exceed the rate given by the Commission in the relevant tariff orders at State periphery. Any procurement over and above the rate at the State periphery approved by the Commission shall be disallowed unless prior approval for the same is sought by UPCL.**

8.1.42 *Promotion of Prepaid Meters*

The Commission has taken note of suggestion received from the stakeholder regarding improvement in metering and billing and the Commission directs UPCL to consider the suggestions given by the stakeholders to improve its metering and billing system.

Petitioner Submission

The Petitioner submitted that a Reforms – based and Results linked, Revamped Distribution Sector Scheme as approved by Government of India vide its notification dated 20-07-2021 is under consideration to be implemented in UPCL. Under part – A of the scheme, prepaid smart metering for consumers, and system metering at feeder and distribution transformer level with communicating feature along with associated Advanced Metering Infrastructure (AMI) will be done to facilitate reduction of distribution losses and enable automatic measurement of energy flows an energy accounting as well as auditing.

Also, for Smart Metering project earlier Petitioner was in process of implementation of Smart Prepaid Meters to the consumers covered under Roorkee Circle (approx. 2.25 Lakh) under OPEX model. However, during discussion with Nodal agencies for funding (grant) it was suggested to implement under the new scheme, i.e. RDSS. Hence the above project is now part of the RDSS which covers consumers across the State (Approx 12 Lakh) and the priority of the installation will be as per the Guidelines issued by MOP on the scheme dated 30.7.2021. The RDSS scheme provides for 22.5% grant and balance under TOTEX mode (Capex + Opex) for 5/7-year period as may be suggested by Nodal agencies under the DPR approval process.

The Commission has noted the submissions of the Petitioner in this regard.

8.1.43 *Repair and Maintenance*

The Commission directed to devise a proper system of internal control which should include how and when an asset should be capitalized and how the accounting treatment should be done including physical verification of the same.

Petitioner Submission

The Petitioner submitted that the Director (Operations) vide his letter no. 222/D(O)/UPCL/M-1/Capitalisation dated 21.04.2020 had directed the field units that final payment and capitalization of work [i.e. transfer from capital work in progress (AG 14) to fixed asset s (AG 10)] should be done only after the preparation of completion report and the said work should be done on monthly basis. Further, Commission vide its letter dated 12-10-2021 has approved the policy on capitalization process and Repair and Maintenance of UPCL. Director (Operations), UPCL vide its letter no. 3718/निदे0(परिचालन)/उपाकालि/सी–4] dated 25-10-2021 forwarded the said policy to all the field officers for taking action as per the provisions of the policy.

The Commission has noted the submissions of the Petitioner in this regard.

8.1.44 *Rate Schedule for FY 2021-22*

The Commission vide Order dated April 26, 2021 decided to continue with the existing approach and directs UPCL to conduct a detailed study on the same.

Petitioner's Submission

UPCL submitted that the technical losses at 132 kV and 220 kV.

UPCL submitted comparison of few states which provide different demand & energy charges at different voltage or provide voltage rebate for 132 and 220 kV consumers.

The Commission has noted the submissions of the Petitioner in this regard.

8.1.45 *Views of State Advisory Committee*

The Commission directed UPCL to submit its responses to the issues raised by Members of

SAC mentioned in the Order dated April 26, 2021 within 2 months of the date of the Order and the Commission will take appropriate view based on the response submitted by UPCL.

Petitioner's Submission

The Petitioner submitted following details against the issues raised by Members of SAC as below:

Clause No.	Submission by UPCL
B	The Petitioner submitted that the awareness campaign on tariff proposal shall be made by UPCL as per direction of the Commission.
F	The Petitioner submitted Category wise collection efficiency from FY 2017-18 to 2019-20.
K	The scope of work of power purchase cell and accordingly the requirement of adequate & suitable manpower for the same are being explored. Proposal will be put up before the Board as soon as the same is finalized. UPCL submitted that it purchases the power considering the demand and availability position in the State. Further, the projections of demand and availability are being prepared on the basis of data available in SLDC. However due to 50% of availability being hydro, the projection of availability vis-à-vis demand are very difficult. Moreover, UPCL while scheduling power from the long terms agreement compare the variable cost of the power with the market scenario and accordingly replaces such costlier power. The process of replacement of costlier power on day-ahead basis is being done continuously by UPCL to optimize the power purchase cost. In order to decrease the power purchase cost, the work of Real time Decision Support for day to day effective energy management has been awarded to M/s Quenext Decision Sciences Pvt. Ltd. vide UPCL's letter no. 431/UPCL/CE(CCP-II)/30/2018-, dated 08-06-2020.
R	Presently, all the money invested in fixed deposits has been made by UPCL out of security deposits received from the consumers towards credit supply of electricity.
S	The provisions of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 are adhere at the time of construction of distribution network including placement of transformer and high-tension line.

The Commission has noted the submissions of the Petitioner in this regard.

8.2 Fresh Directives

8.2.1 *Consultative Committee*

The Commission in Chapter 2 of this Order has taken a note of the suggestion with regard to formation of a Consultative Committee which shall meet more regulatory to discuss issues pertaining to consumers with regard to supply of power. **The Commission therefore directs UPCL to submit a proposal to the Commission for constitution of such committee within 60 days from this Order.**

8.2.2 *Submitting the Correct Information*

The Commission as discussed in Chapter 7 Review of Commercial Performance of UPCL of this Order raised certain observations on the Petitioner's submissions related to assets maintained by UPCL, reduction in revenue realization of non-domestic & industrial consumers during FY 2020-21, variation in total revenue realization as on 31.03.2021 in Format-7 & Format-8. The Petitioner vide letter dated 10.02.2022 has indicated the 'Energy Sold' of 11418.06 MU and 'Total Revenue Realisation' of Rs 6734.89 Crore for FY 2020-21 in Format-7 pertaining to 'Status of Revenue realisation per unit of Energy Sold'. However, the Petitioner vide its letter dated 24.03.3022 has furnished the revised Format-7 wherein the Petitioner has changed the figure of 'Energy Sold' and 'Total Revenue Realisation' for FY 2020-21 to 11432.59 MU and Rs. 6737.07 Crore.

The Commission directs the licensee to submit the correct information/ figures/data before the Commission within the stipulated time frame after thorough check by the concerned officers of the Petitioner and, accordingly, cautions the licensee that practices of furnishing the unvalidated/incorrect information before the Commission should be strictly avoided, and this should not be repeated in future else appropriate action under the Act/ Rules/Regulations would be initiated.

8.2.3 *To update and Maintain the CS-3 & CS-4 report on web-site*

As discussed in Chapter 7 - Review of Commercial Performance of UPCL, it is important that the Petitioner should maintain its Commercial Diary and update the same from time to time on its web-site in the interest of consumers of the State. While accessing the web-site for examination of the data of Commercial Performance, it has been found that the CS-3 & CS-4 reports are not being promptly updated on Petitioner's web-site. It has also been noted that during some days in the month of December, 2021 the web-site link of the Petitioner pertaining to Commercial Diary Data was not working rather an error message was appearing in the web-site and the Commission, accordingly, vide its letter dated 06.12.2021 had directed the Petitioner for ensuring the availability and updation of the data from time to time. Despite the Commission's directions, the Petitioner is updating the CS-3 & CS-4 reports with delay of approximately 05 months. In this regard, the Commission cautions the licensee that such practices should be strictly avoided, and this should not be repeated in future. **The Commission directs the licensee to update and maintain the CS-3 & CS-4 report on their web-site regularly and promptly within 02 months**.

8.2.4 *Repair & Maintenance*

UPCL is directed to rectify all the anomalies and Commission's observations within six months from the date of this Order, failing which the Commission shall carry out necessary adjustments along with carrying cost. (Refer Para 4.1.4.2).

8.2.5 *Interest on Working Capital*

UPCL is directed to submit the month wise division wise details of collection of dues by the 15th of the next month and action may be taken against the Executive Engineer of those divisions whose collection efficiency is less than the approved collection efficiency (Refer Para 4.2.4).

8.2.6 *A&G Expenses*

The Petitioner is directed to properly account for these provisions in appropriate heads of accounts so that the same can be easily identified during the truing up of respective years (Refer Para 5.10.2.3).

8.2.7 *AT&C losses*

The Commission directs the Petitioner to submit an Action Plan for implementation of the aforesaid works within a month of issuance of the Order for restricting the AT&C losses at minimum level (Refer Para 7.4).

8.3 Conclusion

Having considered the submissions made by the Petitioner, the responses of various stakeholders and the relevant provisions of the Electricity Act, 2003 and Regulations of the Commission, the Commission hereby approves that:

(i) Uttarakhand Power Corporation Ltd., the distribution and retail supply licensee in the State will be entitled to charge the tariffs from consumers in its licensed area of supply as given in the Rate Schedule for FY 2022-23 annexed hereto as Annexure-1. These Tariffs will be effective from April 01, 2022.

(ii) Uttarakhand Power Corporation Ltd., the distribution and retail supply licensee in the State will realize from consumers of electricity in the State, miscellaneous charges as listed out in Annexure- 2 of this Order and shall not recover any other charge, fee, deposit, etc., unless approved by the Commission.

(iii) The above tariffs shall continue to be applicable till revised by the Commission.

The Petitioner shall forward a report on compliance of the directions given in this Order within the time stipulated for compliance.

M.K. Jain	**D.P. Gairola**
Member (Technical)	**Member (Law)/Chairman (I/c)**

9. Annexures

9.1 Annexure 1: Rate Schedule Effective from 01.04.2022

A. General Conditions of Supply

1. Character of Service

i) Alternating Current 50 Hz., single phase, 230 Volts (with permissible variations) up to a load of 4 kW.

ii) Alternating Current 50 Hz, three phase, 4 wire, 400 Volts or above (with permissible variations) for loads above 4 kW depending upon the availability of voltage of supply.

2. Conditions for New Connections

i) Supply to new connections of more than 75 kW (88 kVA) and up to 2550 kW (3000 kVA) shall be released at 11 kV or above, loads above 2550 kW (3000 kVA) and upto 8500 kW (10000 kVA) shall be released at 33 kV or above, loads above 8500 kW (10000 kVA) and upto 42500 kW (50000 kVA) shall be released at 132 kV or above, for loads above 42500 kW (50000 kVA) shall be released at 220 kV or above.

ii) All new connections shall be given with meter conforming to CEA Regulations on Installation and Operation of Meters.

iii) All new 3 phase connections above 4 kW shall be released with Electronic Tri-vector Meter having Maximum Demand Indicator.

iv) All new Single Point Bulk Connection shall be given only for Load of more than 75 kW.

v) Consumers having motive loads of more than 5 BHP shall install Shunt Capacitor of appropriate rating and conforming to BIS specification.

vi) All new connections at HT/EHT should be released only with 3 phase 4 wire meters.

3. Point of Supply

Energy will be supplied to a consumer at a single point.

4. Billing in Defective Meter (ADF/IDF), Meter Not Accessible/ Not Read (NA/NR) and Defective Reading (RDF) Cases

In NA/NR cases, the energy consumption shall be assessed and billed as per average consumption of last one year average consumption (as per the Electricity Supply Code) which shall be subject to adjustment when actual reading is taken. Such provisional billing shall not continue for more than two billing cycles at a stretch. Thereafter, the licensee shall not be entitled to raise any bill on provisional basis. In case of Appear defective meter (ADF) Identified defective meter (IDF) and Reading defect (RDF) cases, the consumers shall be billed on the basis of the average consumption of the past three billing cycles immediately preceding the date of the meter being found or being reported defective (as per the Electricity Supply Code). These charges shall be leviable for a maximum period of two billing cycle in case of bi-monthly billing only during which time the licensee is required to replace the defective meter. Thereafter, the licensee shall not be entitled to raise any bill without correct meters.

The checking and replacement of defective meter cases namely IDF and ADF and defective reading cases namely RDF shall be done by the licensee in accordance with the provisions of the Electricity Supply Code as applicable.

5. Billing in case of domestic metered consumers in rural/hilly areas whose meters are not being read

For cases relating to domestic metered consumers in rural/hilly areas, where meter reading is either not being taken regularly or taken randomly over delayed interval of time, the provisional billing under these circumstances for such consumers shall be done at the normative levels of consumption as given below, which shall be subject to annual adjustment based on actual meter reading.

Category	Normative Consumption
Domestic (Rural-Hilly Areas)	30 kWh/kW/month
Domestic (Rural-Other Areas)	50 kWh/kW/month

For this purpose, the contracted load shall be rounded off to next whole number. Billing on this basis is subject to annual adjustment and the licensee is to ensure meter reading of such consumers at least once a year.

6. Billing in New Connection

For cases such as new connections, where past reading is not available, the provisional billing shall be done at the normative levels of consumption as given below, which shall be subject to adjustment when actual reading is taken.

Category	Normative Consumption
Domestic (Urban)	100 kWh/kW/month
Domestic (Rural-Hilly Areas)	30 kWh/kW/month
Domestic (Rural-Other Areas)	50 kWh/kW/month
Non-domestic (Urban)	150 kWh/kW/month
Non-domestic (Rural)	100 kWh/kW/month
Private Tube Wells	60 kWh/BHP/month
Industry	
LT Industry	150 kWh/kW/month
HT Industry	150 kVAh/kVA /month

For this purpose, the contracted load shall be rounded off to next whole number. Billing on this basis shall continue only for a maximum period of 2 billing cycles, during which the licensee should ensure actual reading. Thereafter, the licensee shall not be entitled to raise any bill without correct meter reading. In all other categories, 1st bill shall be raised only on actual reading.

7. Delayed Payment Surcharge (DPS) (for all categories except PTW)

In the event of electricity bill rendered by licensee, not being paid in full by the due date, simple interest in the form of a surcharge @ 1.25% per month on the principal amount of the bill which has not been paid, shall be levied from the due date for each successive month or part thereof until the payment is made in full without prejudice to the right of the licensee to disconnect the supply in accordance with Section 56 of the Electricity Act, 2003. The licensee shall clearly indicate in the bill itself the total amount, including DPS, payable for different dates after the due date, taking month as the unit.

8. Solar Water Heater rebate

If a consumer installs and uses solar water heating system, rebate of Rs. 100/- p.m. for each 100 litre capacity of the system or actual bill for that month whichever is lower shall be given subject to the condition that consumer gives an affidavit to the licensee to the effect that he has installed such system, which the licensee shall be free to verify from time to time. If any such claim is found to be false, in addition to punitive legal action that may be taken against such consumer, the licensee will recover the total rebate allowed to the consumer with 100% penalty and debar him from availing such rebate for the next 12 months.

9. Prepaid Metering

Prepaid metering scheme approved by the Commission in this Order shall be applicable. A rebate of 4% of energy charges for Domestic category (RTS-1 and RTS-1A) and 3% of energy charges for other LT consumers shall be allowed to the consumers under the Prepaid Metering Scheme from the date of installation and operationalisation of Prepaid Meters. However, no rebate shall be applicable on RTS-9, i.e. Temporary Supply. Solar water rebate as provided above in the Rate Schedule shall be applicable on prepaid consumers also subject to fulfillment of conditions provided therein.

10. Voltage Rebate/ Surcharge

(i) For consumers having contracted load upto 75 kW/88 kVA - If the supply is given at voltage above 400 Volts and upto 11 kV, a rebate of 5% would be admissible on the Energy Charge.

(ii) For consumers having contracted load above 75 kW/88 kVA – In case the supply is given at 400 Volts, the consumer shall be required to pay an extra charge of 10% on the bill amount calculated at the Energy Charge.

(iii) For consumers having contracted load above 75 kW/88 kVA – In case of supply at 33 kV the consumer shall receive a rebate of 3.5% on the Energy Charge.

(iv) For consumers having contracted load above 75 kW/88 kVA and receiving supply at 132 kV and above, the consumer shall receive a rebate of 7.5% on the Energy Charge.

(v) All voltages mentioned above are nominal rated voltages.

(vi) No rebate or surcharges would be applicable on consumers having pre-paid connections."

11. Low Power Factor Surcharge (not applicable to Domestic, PTW categories and also to other categories having kVAh based Tariff)

(i) On the consumers without Electronic Tri Vector Meters, who have not installed shunt capacitors of appropriate ratings and specifications, a surcharge of 5% on the current energy charges shall be levied.

(ii) On consumers with Electronic Tri Vector Meters, a surcharge of 5% on current energy charges will be levied for having power factor below 0.85 and upto 0.80 and a surcharge of 10% of current energy charges will be levied for having power factor below 0.80.

(iii) No surcharge would be applicable on consumers having pre-paid connections.

12. Prompt Payment Rebate

(i) A prompt payment rebate of 1.25% of the monthly bill (excluding Taxes and Duties) shall be provided to consumers for payment of electricity bills through various modes of digital payment such as credit cards, debit cards, UPI, BHIM, internet banking, mobile banking, mobile wallets, online Bank Transfer (RTGS/NEFT/IMPS) etc. within 10 days from the date of issuance of the bill/ bill date.

(ii) A prompt payment rebate of 0.75% of the monthly bill (excluding Taxes and Duties) shall be provided to consumers for payment of electricity bills not through digital mode but through other modes of payment, namely Cash/Cheque/Demand Draft etc., within 10 days from the date of issuance of the bill/bill date.

Provided that the prompt payment rebate shall be subject to cap of Rs 10,000/- per month for LT Consumers and Rs 1,00,000/- per month for HT consumers.

13. Excess Load/Demand Penalty (Not applicable to Domestic, Snow bound and PTW categories)

In case of consumers where electronic meters with MDI have been installed, if the maximum demand recorded in any month exceeds the contracted load/demand, charges for such excess load/ demand shall be levied equal to twice the normal rate of fixed/demand charge as applicable. Such excess load penalty shall be levied only for the month in which maximum demands exceeds contracted load. However, no excess load penalty would be applicable on consumers having pre-paid connections.

Example:

(i) For consumers where fixed charges on the basis of contracted load/demand have been specified:

Contracted load 30 kW, Maximum Demand 43 kW,

Excess Demand 43-30=13 kW, Rate of Fixed Charges= Rs. 95/kW

Fixed Charges for contracted load = 30 x 95=Rs. 2850

Fixed Charges for excess load = 13x (2 x95) =Rs. 2470

Total Fixed Charges = 2850+2470= Rs. 5320

(ii) For industrial consumers billed on billable demand:

Contracted demand 2500 kVA, Maximum Demand 2800 kVA, Billable Demand =2800 kVA

Excess Demand =2800-2500=300 kVA, Rate of Demand Charges= Rs. 430/kVA

Demand Charges for contracted demand =2500 x 430=Rs. 1075000

Demand Charges for excess demand = 300x (2 x 430) =Rs. 258000

Total Demand Charges = 1075000+258000= Rs. 1330000

14. Single Point Bulk Supply for Domestic, Non Domestic and Mixed Load Categories

(i) Single Point Bulk Supply connection shall only be allowed for Sanctioned/Contracted Load above 75 kW with single point metering for further distribution to the end users. However, this shall not restrict the individual owner/occupier from applying for individual connection.

(ii) The person who has taken the single point supply shall be responsible for all payments of electricity charges to the Licensee. He is authorized to bill the end consumers as per the approved tariff for the single point bulk supply of the concerned category as per the Rate Schedule and the distribution licensee shall ensure the compliance of the same.

(iii) The person who has taken the single point supply shall also be deemed to be an agent of Licensee to undertake distribution of electricity for the premises for which single point supply is given under seventh proviso to section 14 of the Electricity Act, 2003 and distribution licensee shall be responsible for compliance of all provisions of the Act and Rules & Regulations thereunder within such area.

(iv) Single Point Bulk Supply under "Domestic" shall only be applicable for Residential Colonies/Residential Multistoreyed Buildings including common facilities (such as Lifts, Common Lighting and Water Pumping system) of such Residential Colonies/ Residential Multistoreyed Buildings. In case these Residential Colonies/Residential Multistoreyed Buildings also have some shops or other commercial establishments, the tariff of Mixed Load shall be applicable for such premises subject to conditions provided in the Rate Schedule of Mixed Load Category.

(v) Single Point Bulk Supply Under "Non-Domestic" shall only be applicable for Shopping Complexes/Multiplex/Malls.

15. Rounding off

(i) The contracted load/demand shall be expressed in whole number only and fractional load/demand shall be rounded off to next whole number.

Example:

Contracted/Sanctioned Load of 0.15 kW shall be reckoned as 1 kW for tariff purposes. Similarly, contracted/sanctioned load of 15.25 kW/kVA shall be taken as 16 kW/kVA.

(ii) All bills will be rounded off to the nearest rupee.

16. Other Charges

Apart from the charges provided in the Rate of Charge and those included in the Schedule of Miscellaneous Charges, no other charge shall be recovered from the consumer unless approved by the Commission.

B. Tariffs

RTS-1: Domestic

1. Applicability

This schedule shall apply to supply of power to:

(i) Residential premises (including premises of Departmental Employees & Pensioners of UPCL, PTCUL and UJVN Ltd.) for light, fan, power and other domestic purposes including common facilities (such as Lifts, Common Lighting and Water Pumping system).

(ii) Single Point Bulk Supply above 75 kW for Residential Colonies, Residential Multi-storeyed buildings where energy is exclusively used for domestic purpose including common facilities (such as Lifts, Common Lighting and Water Pumping system) of such Residential Colonies/Residential Multistoreyed Buildings.

(iii) Places of worship, i.e. Mandir, Masjid, Gurudwara, Church, etc. (only for standalone places of worship and not for the places of worship which have other facilities such as Dharamshala, Community Hall, Dormatories, etc. attached with it).

(iv) Gaushalas/Gausadans and Dairy Farms having load upto 4 kW and consumption upto 600 kWh/ month.

(v) Home-stay registered under Deendayal Upadhyay Home-Stay Development Policy Rules, 2018.

(This rate schedule shall also be applicable to consumers having contracted load upto 2 kW as also consumption upto 200 kWh/month and who are using some portion of the premises mentioned above for non-domestic purposes. However, if either contracted load for such premises is above 2 kW or consumption is more than 200 kWh/month, then the entire energy consumed shall be charged under the appropriate Rate Schedule unless such load is segregated and separately metered).

2. Rate of Charge

Description	Fixed Charges*	Energy Charges
1) Domestic		
1.1)BPL/Life line consumers		
Below Poverty Line and Kutir Jyoti having load upto 1 kW and consumption upto 60 units per month	Rs. 18/ connection/month	Rs. 1.65/kWh
1.2) Other Domestic Consumers		
Upto 100 units per month	• Upto 1 kW-Rs. 60/kW/Month • Above 1 kW and upto 4 kW-Rs. 70/kW/month • Above 4 kW-Rs. 80/kW/month	Rs. 2.90/kWh
101-200 units per month		Rs. 4.20/kWh
201-400 units per month		Rs. 5.80/kWh
Above 400 units per month		Rs. 6.55/kWh
2) Single Point Bulk Supply	Rs. 100/kVA/month	Rs. 5.40/kVAh

** Fixed Charges based on sanctioned load*

RTS-1A: Snowbound

1. Applicability

This schedule shall apply to supply of power to:

(i) Domestic and non-domestic consumers in snowbound areas.

(ii) This Schedule applies to areas notified as snowbound/snowline areas by the concerned District Magistrate.

2. Rate of Charge

Description	Fixed Charges	Energy charges
1) Domestic	Rs. 18/connection/month	Rs. 1.65/kWh
2) Non-domestic upto 1 kW		Rs. 1.65/kWh
3) Non-domestic more than 1 kW & upto 4 kW		Rs. 2.40/kWh
4) Non-Domestic more than 4 kW	Rs. 30/connection/month	Rs. 3.55/kWh

3. All other conditions of this Schedule shall be same as those in RTS-1.

RTS-2: Non-Domestic

1. Applicability

This schedule should apply to supply of power to:

1.1 (i) Government/Municipal Hospitals.

(ii) Government/Government Aided Educational Institutions.

(iii) Charitable Institutions registered under the Income Tax Act, 1961 and whose income is exempted from tax under this Act.

1.2 Small Non Domestic Consumers with connected load upto 4 kW and consumption upto 50 units per month.

1.3 Other Non-Domestic Users including single point bulk supply above 75 kW for shopping complexes/multiplex/malls including common facilities (such as lifts, common lighting and water pumping system).

1.4 Independent Advertisement Boards/Hoardings - All commercial (road side/roof top or on the side of the buildings etc.) standalone independent advertisement hoardings such as private advertising sign posts/sign boards/sign glows/flex that are independently metered through a separate meter.

2. Rate of Charge

S. No.	Description	Fixed Charges	Energy Charges
1.1	(i) Government/Municipal Hospitals (ii) Government/Government Aided Educational Institutions (iii) Charitable Institutions registered under the Income Tax Act, 1961 and whose income is exempted from tax under this Act		
	(a) Upto 25 kW	Rs. 80/ kW	Rs. 4.75/ kWh
	(b) Above 25 kW	Rs. 90/ kVA	Rs. 4.50/ kVAh
1.2	**Other Non-Domestic Users**		
	(a) Small Non-Domestic Consumers with connected load upto 4 kW and consumption upto 50 units per month*	Rs. 75 / kW	Rs. 4.80/ kWh
	(b) Others upto 25 kW not covered in 1.2(a) above	Rs. 95 / kW	Rs. 5.90/ kWh
	(c) Above 25 kW	Rs. 95 / kVA	Rs. 5.90/ kVAh
1.3	Single Point Bulk Supply**	Rs. 110 / kVA	Rs. 6.00/ kVAh
1.4	Independent Advertisement Hoardings	Rs. 120/kW	Rs. 6.65/kWh

** If consumption exceeds 50 units/month, then on the entire energy consumed tariff as per sub-category 1.2(b) shall be charged.*

*** For loads above 75 kW for shopping complexes/multiplex/malls.*

3. Other Conditions

3.1 ToD Meters shall be read by Meter Reading Instrument (MRI) only with complete dump with phasor diagram, Tamper Reports, full load survey reports etc. shall be downloaded for the purpose of complete analysis.

3.2 All consumers above 25 kW shall necessarily have ToD Meters.

3.3 No meter shall be read at zero load or very low load. Licensee shall carry appropriate external load and shall apply the same, wherever, necessary to take MRI at load.

3.4 Copy of MRI Summary Report shall be provided alongwith the Bill. Full MRI Report including load survey report shall be provided on demand and on payment of Rs. 15/ Bill.

RTS-3: Govt. Public Utilities

1. Applicability

This schedule shall apply to supply of power to:

(i) Public lamps including street lighting system, traffic control signals, lighting of public parks, etc. The street lighting of Harijan Bastis and villages are also covered by this Rate Schedule.

(ii) State Tubewells, World Bank Tubewells, Pumped Canals and Lift irrigation schemes, Laghu Dal Nahar etc.,

(iii) Irrigation system owned and operated by any Government department.

(iv) Public Water Works, Sewage Treatment Plants and Sewage Pumping Stations functioning under Jal Sansthan, Jal Nigam or other local bodies and Plastic Recycling Plants.

2. Rate of Charge

Category	Fixed Charges*	Energy Charge
Urban (Metered)	Rs. 100/kVA/month	Rs. 6.05/ kVAh
Rural (Metered)	Rs. 90/kVA/month	Rs. 6.05/ kVAh

** The Urban and Rural differentiation will apply only for supply of power to 1(i) & 1(iv) above.*

3. Maintenance Charge for Public Lamps

In addition to the "Rate of Charge" mentioned above, a sum of Rs. 10/- per light point per month shall be charged for operation and maintenance of street lights covering only labour charges where all material required will be supplied by the local bodies. However, the local bodies will have the option to operate and maintain the public lamps themselves and in such case no maintenance charge will be charged.

4. Provisions of Street Light Systems

In case, the maintenance charge, as mentioned above, is being charged then the labour involved in the subsequent replacement or renewals of lamps shall be provided by the licensee but all the material shall be provided by the local bodies. If licensee provides material at the request of local body, cost of the same shall be chargeable from the local body.

The cost involved in extension of street light mains (including cost of sub-stations if any) in areas where distribution mains of the licensee have not been laid, will be paid for by the local bodies.

RTS-4: Private Tube Wells/ Pumping Sets

1. Applicability

This schedule shall apply to supply of power to private tube-wells/pumping sets for irrigation purposes and for incidental agricultural processes confined to chaff cutter, thrasher, cane crusher and rice huller only. However, the tariff applicable for RTS-4 shall only be applicable if such incidental agricultural processes are being carried out for agricultural produce of the connection sanctioned for irrigation purposes.

2. Rate of charge

Category	Fixed Charges Rs./BHP/Month	Energy Charges Rs./kWh
RTS 4: PTW (Metered)	Nil	2.15

3. Payments of bills and Surcharge for Late Payment

The bill shall be raised for this category twice a year only, i.e. by end of December (for period June to November) and end of June (for period December to May). The bill raised in December may be paid by the consumer either in lump-sum or in parts (not more than four times) till 30th April next year for which no DPS shall be levied. Similarly, bill raised in June may be paid by 31st October without any DPS. In case consumer fails to make payment within the specified dates, a surcharge @ 1.25% per month for the period (months or part thereof) shall be payable on the principal outstanding amount of the Bill as per clause 7 of the General Conditions of Supply.

RTS-4A: Agriculture Allied Activities

1. Applicability

This schedule shall apply to supply of power for use in nurseries growing plants/saplings, polyhouses and other units growing flowers/vegetables and fruits including mushroom cultivation which does not involve any kind of processing of product except for storing and preservation.

2. Rate of charge

Category	Fixed Charges Rs./BHP/Month	Energy Charges Rs./kWh
RTS 4(A): Agricultural Allied Services	Nil	2.85

RTS-5: LT and HT Industry

1. Applicability

This schedule shall apply to supply of power to:

(i) Industries and/or processing or agro- industrial purposes, power loom as well as to Arc/Induction Furnaces, Rolling/Re-rolling Mills, Mini Steel Plants and to other power consumers not covered under any other Rate Schedule.

(ii) The vegetable, fruits, floriculture & Mushroom integrated units engaged in processing, storing and packaging in addition to farming and those not covered under RTS-4A shall also be covered under this Rate Schedule.

2. Specific Conditions of Supply

(i) All connections shall be connected with MCB (Miniature Circuit Breaker) or Circuit Breaker/Switch Gear of appropriate rating and BIS Specification.

(ii) The supply to Induction and Arc Furnaces shall be made available only after ensuring that the loads sanctioned are corresponding to the load requirements of tonnage of furnaces. The minimum load of 1 Tonne furnace shall in no case be less than 400 kVA and all loads will be determined on this basis. No supply will be given for loads below this norm.

(iii) Supply to Steel Units shall be made available at a voltage of 33 kV or above through a dedicated individual feeder only with check meter at sub-station end. Difference of more than 3%, between readings of check meter and consumer meter(s), shall be immediately investigated by the licensee and corrective action shall be taken.

(iv) Supply to all new connections with load above 1000 kVA should be released on independent feeders only with provisions as at (iii) above.

Description	Energy Charge		Fixed /Demand Charge per month
1. LT Industry having contracted load upto 75kW (100 BHP)			
1.1 Contracted load up to 25 kW	Rs. 4.80/kWh		Rs. 165/ kW of contracted load
1.2 Contracted load more than 25 kW	Rs. 4.50/kVAh		Rs. 170/ kVA of contracted load
2. HT Industry having contracted load above 88 kVA/75 kW (100 BHP)	Load Factor#	Rs./kVAh	
2.1 Contracted Load up to 1000 kVA	Upto 40%	4.80	Rs. 360/kVA of the billable demand*
	Above 40%	5.20	
2.2 Contracted Load More than 1000 kVA	Upto 40%	4.80	Rs. 430/kVA of the billable demand*
	Above 40%	5.20	

** Billable demand shall be the actual maximum demand or 80 % of the contracted load whichever is higher.*

#For tariff purposes Load Factor (%) would be deemed to be =

$$\frac{\text{Consumption (excluding the energy received through open access) during the billing period}}{\text{Maximum Demand or Contracted Demand whichever is less x No. of hours in the billing period}} \times 100$$

Provided that in cases where maximum demand during the month occurs in a period when open access is being availed by the consumer, then maximum demand for the purpose of computation of load factor shall be that occurring during the period when no open access is being availed.

3. Time of Day Tariff

(i) The rates of energy charge given above for LT industry with load more than 25 kW and HT industry shall be subject to ToD rebate/surcharge.

(ii) ToD Meters shall be read by Meter Reading Instrument (MRI) only with complete dump with phasor diagram, Tamper Reports, full load survey reports etc. shall be downloaded for the purpose of complete analysis and bills shall be raised as per ToD rate of charge.

(iii) No meter shall be read at zero load or very low load. Licensee shall carry appropriate external load and shall apply the same, wherever, necessary to take MRI at load.

(iv) Copy of MRI Summary Report shall be provided along with the Bill. Full MRI Report including load survey report shall be provided on demand and on payment of Rs. 15/ Bill.

(v) ToD Load shall be as under:

Season/Time of day	Morning Peak hours	Normal hours	Evening Peak Hours	Off-peak Hours
Winters 01.10 to 31.03	0600-0800 hrs	0800-1800 hrs	1800-2200 hrs	2200-0600 hrs
Summers 01.04 to 30.09	--	0700-1800 hrs	1800-2300 hrs	2300-0700 hrs

The, ToD Rate of Energy Charges shall be as under:

For LT Industry

Energy Charge during		
Normal Hours	**Peak Hours**	**Off-peak Hours**
Rs. 4.50/kVAh	Rs. 5.85/kVAh	Rs. 3.60/kVAh

For HT Industry

Load Factor*	Energy Charge during		
	Normal Hours	**Peak Hours**	**Off-peak Hours**
Upto 40%	Rs. 4.80/kVAh	Rs. 6.76/kVAh	Rs. 3.84/kVAh
Above 40%	Rs. 5.20/kVAh	Rs. 6.76/kVAh	Rs. 4.16/kVAh

** Load Factor shall be as defined in Clause 2 above.*

4. Seasonal Industries

Where a consumer having load in excess of 18 kW (25 BHP) and ToD meter and avails supply of energy for declared Seasonal industries during certain seasons or limited period in the year, and his plant is regularly closed down during certain months of the financial year, he may be levied for the months during which the plant is shut down (which period shall be referred to as off-season period) as follows:

(i) The tariff for 'Season' period shall be same as "Rate of Charge" as given in this schedule.

(ii) Where actual demand in 'Off Season' Period is not more than 30% of contracted load, the energy charges for "Off-Season" period shall be same as energy charges for "Season" period given in Rate of Schedule above. However, the contracted demand in the "Off Season" period shall be reduced to 30%.

(iii) During 'Off-season' period, the maximum allowable demand will be 30% of the contracted demand and the consumers whose actual demand exceeds 30% of the contracted demand in any month of the 'Off Season' will be denied the above benefit of reduced contracted demand during that season. In addition, a surcharge at the rate of

10% of the demand charge shall be payable for the entire 'Off Season' period.

Terms and Conditions for Seasonal Industries

(i) The period of operation should not be more than 9 months in a financial year.

(ii) Where period of operation is more than 4 months in a financial year, such industry should operate for at least consecutive 4 months.

(iii) The seasonal period once notified cannot be reduced during the year. The off-season tariff is not applicable to composite units having seasonal and other categories of loads.

(iv) Industries in addition to sugar, ice, rice mill, frozen foods and tea shall be notified by Licensee only after prior approval of the Commission.

5. Factory Lighting

The electrical energy supplied under this schedule shall also be utilised in the factory premises for lights, fans, coolers, etc. which shall mean and include all energy consumed for factory lighting in the offices, the main factory building, stores, time keeper's office, canteen, staff club, library, creche, dispensary, staff welfare centres, compound lighting, etc.

6. Continuous and Non-continuous supply

(i) Continuous Process Industry as well as non continuous process industrial consumers connected on either independent feeders or industrial feeder can opt for continuous supply. For industrial feeder, all connected industries will have to opt for continuous supply and in case any consumer on industrial feeder does not wish to opt for continuous supply, all the consumers on such feeder will not be able to avail continuous supply. Such Industrial consumers who opt for continuous supply shall be exempted from load shedding during scheduled/unscheduled power cuts and during restricted hours of the period of restriction in usage approved by the Commission from time to time, except load shedding required due to emergency breakdown/shutdown.

(ii) Consumers who are existing Continuous Supply Consumers shall continue to remain Continuous Supply Consumers and they need not apply again for seeking continuous supply. Such consumers shall pay 2.5% extra energy charges, in addition to the energy charges given above, w.e.f. April 01, 2022 till March 31, 2023. However, in case of any pending dispute with UPCL in the matter of continuous supply on certain feeders, those consumers will have to apply afresh, for availing the facility of continuous supply, by April 30, 2022.

(iii) The existing consumers who are new applicants for continuous supply of power (including those who are applying afresh as per above) can apply for seeking the continuous supply option at any time during the year. However, continuous supply surcharge for such consumers shall be applicable with effect from May 1, 2022 till March 31, 2023. UPCL shall provide the facility of continuous supply within 7 days from the date of application, subject to fulfilment of Conditions of Supply.

(iv) In case of re-arrangement of supply through independent feeder, UPCL shall provide the facility of continuous supply from the date of completion of work of independent feeder subject to fulfilment of Conditions of Supply and the Continuous Supply Surcharge on such consumers shall be applicable from the date of energisation of aforesaid independent feeder till March 31, 2023, irrespective of actual period of continuous supply option.

(v) In case of a new consumer (new connection) opting continuous supply, 2.5% extra energy charges as Continuous Supply Surcharge shall be applicable from the date of new connection till March 31, 2023, irrespective of the actual period of continuous supply.

(vi) The existing consumers availing continuous supply option, who wish to discontinue the continuous supply option granted to them earlier, will have to communicate, in writing, to UPCL latest by April 30, 2022 and they shall continue to pay continuous supply surcharge alongwith the tariff approved in this Order till April 30, 2022. Further, in this regard, if due to withdrawal by one consumer from availing continuous supply option on a particular feeder, supplying to other continuous supply consumers as well, the status of other continuous supply consumers on that feeder is affected, then UPCL shall inform all the affected consumers in writing, well in advance.

(vii) The Continuous Supply Surcharge shall not be applicable on the power procured by the industrial consumers through open access.

(viii) UPCL shall not change the status of a continuous supply feeder to a non-continuous supply feeder.

(ix) UPCL/PTCUL shall take up augmentation, maintenance and overhauling works on top priority, specially in the sub-stations where circuit breakers, other equipment, etc. are in dilapidated condition and, thereby, shall ensure minimisation of interruptions of the continuous supply feeders.

(x) UPCL/PTCUL shall carry out periodical preventive maintenance of the feeders supplying to continuous supply consumers. The licensees shall prepare preventive maintenance schedule, in consultation with continuous supply consumers, well in advance, so that such consumers can plan their operations accordingly.

(xi) The Licensee should show the energy charges and continuous supply surcharge thereon separately in the bills.

7. Demand Charges for HT Industry

If the minimum average supply to any HT Industry Consumers is less than 18 hours per day during the month, the Demand Charges applicable for such HT Industry Consumer shall be 80% of the approved Demand Charges for HT Industry.

RTS 6: Mixed Load

1. Applicability

This schedule applies to single point bulk supply connection of more than 75 kW where the supply is used predominantly for domestic purposes (with more than 60% domestic load) and also for other non-domestic purposes. This schedule also applies to supply to MES.

2. Rate of Charge

The following rates shall apply to consumers of this category

Fixed Charges	Energy Charges
Rs. 120/kVA/month	Rs. 5.60/kVAh

3. Other conditions

Apart from the above, other conditions of tariff shall be same as those for RTS-1 consumers. However, excess load penalty shall be applicable as per clause 13 of General Conditions of Supply.

RTS 7: Railway Traction

1. Applicability

This schedule applies to Railways utilizing power for traction purposes.

2. Rate of Charge

The following rates of energy and demand charge shall apply to this category:

Demand Charges	Energy Charges
Rs./kVA/month	Rs./kVAh
Rs. 285/-	Rs. 4.90

3. Other conditions

Apart from the above, other conditions of tariff shall be same as those for General HT Industries under RTS-5 consumers except applicability of ToD tariff and surcharge for continuous supply.

RTS 8: Electric Vehicle Charging Stations

1. Applicability

This schedule applies to Public Electric Vehicle Charging Stations set up for providing Electric Vehicle Charging facilities on commercial basis.

2. Rate of Charge

The following rates of energy and demand charge shall apply to this category:

FixedCharges	Energy Charges
Rs./kW/month	Rs./kWh
---	Rs. 5.50

RTS-9: Temporary Supply

1. Applicability

(i) This schedule shall apply to temporary supplies of light, fan and power loads for all purposes including illumination/public address/ceremonies and festivities/functions/ temporary shops not exceeding three months.

(ii) This schedule shall also apply for power taken for construction purposes including civil work by all consumers including Government Departments. Power for construction purposes for any work / project shall be considered from the date of taking first connection for the construction work till completion of the work / project.

However, use of electricity through a permanent connection sanctioned for premises owned by the consumer for construction, repair or renovation of existing building, shall not be considered as unauthorised use of electricity as long as the intended purpose/use of the building/apartments being constructed is same/permissible in the sanctioned category of the connection.

2. Rate of Charge

The rate of charge will be corresponding rate of charge in appropriate Schedule Plus 25%. The appropriate rate schedule for the temporary supplies for cane crusher upto 15 BHP given for maximum period of four (4) months will be RTS-5.

9.2 Annexure 2: Schedule of Miscellaneous Charges

Sl. No	Nature of Charges	Unit	Approved (Rs.)
1	**Checking and Testing of Meters**		
	a. Single Phase Meters	Per Meter	50.00
	b. Three Phase Meters	Per Meter	75.00
	c. Recording Type Watt-hour Meters	Per Meter	170.00
	d. Maximum Demand Indicator/ LT CT operated Meters	Per Meter	350.00
	e. Tri-vector Meters/ HT Meters with CT/PT	Per Meter	1000.00
	f. Ammeters and Volt Meters	Per Meter	65.00
	g. Special Meters	Per Meter	335.00
	h. Initial Testing of Meters	Per Meter	NIL
2	**Subsequent testing and installation other than initial testing**	Per Meter	80.00
3	**Disconnection and Reconnection of supply on consumers request or non-payment of bill (for any disconnection or reconnection the charge will be 50%)**		
	a. Consumer having load above 100 BHP/75 kW	Per Job	600.00
	b. Industrial and Non Domestic consumers upto 100 BHP/75 kW	Per Job	400.00
	c. All other categories of consumers	Per Job	200.00
4	**Replacement of Meters**		
	a. Installation of Meter and its subsequent removal in case of Temporary Connections	Per Job	75.00
	b. Changing of position of Meter Board at the consumer's request	Per Job	100.00
5	Checking of Capacitors (other than initial checking) on consumer's request:		
	a. At 400 V/ 230 V	Per Job	150.00
	b. At 11 kV and above	Per Job	300.00

9.3 Annexure 3: Public Notice

UTTARAKHAND POWER CORPORATION LIMITED
(A Govt. of Uttarakhand Undertaking)
Victoria Cross Vijeta Gabar Singh Urja Bhawan, Kanwali Road, Dehradun-248001,
Corporate Identity No. U40109UR2001SGC025867, E-mail ID :- cgmupcl@yahoo.com , Website: www.upcl.org

PUBLIC NOTICE

Inviting Comments on the Petition for MYT for the Control Period from FY 2022-23 to FY 2024-25, True-up for FY 2020-21 and Annual Performance Review for FY 2021-22 and determination of Tariff for FY 2022-23 filed by UPCL before the Uttarakhand Electricity Regulatory Commission

Salient Points of the ARR/Tariff Petition

1. Uttarakhand Power Corporation Limited (UPCL), the sole Distribution and Retail Supply Licensee in the State, has filed a Petition before Uttarakhand Electricity Regulatory Commission (UERC or Commission) for approval of its Annual Revenue Requirement (ARR) for from FY 2022-23 to FY 2024-25 and determination of tariff for FY 2022-23 and has sought revision in Retail Tariffs to be charged from different category of electricity consumers in the State for FY 2022-23.
2. Through the above Petition, UPCL has also sought truing up of expenses for FY 2020-21 (based on audited accounts). The summary of the revised ARR and the revised revenue Gap for FY 2020-21 and projected ARR from FY 2022-23 to FY 2024-25 & projected Revenue gap for FY 2022-23 are given in the following Table:

(Figures in Rs. Crore)

S. No.	Particulars	FY 2020-21		FY 2021-22		Projected by UPCL		
		Approved by the Commission	Final truing up claimed by UPCL	Approved by the Commission	Revised Estimates submitted by UPCL	FY 2022-23	FY 2023-24	FY 2024-25
A.	**Expenditure**							
1	Power Purchase Expenses#	5541.65	4568.91	5269.47	5137.54	5621.07	6060.55	6527.84
2	UJVN Ltd. Arrears Gap /(Surplus)	-	-	(27.61)				
3	SLDC charges	286.49	288.82	288.11	292.10	300.86	309.89	319.18
4	Transmission Charges- PTCUL							
5	Transmission Charges- PGCIL	429.89	607.03	614.55	621.33	641.63	660.88	680.71
6	O&M expenses	554.19	614.52	595.27	652.95	716.64	780.54	860.63
7	Interest charges (including interest on consumer security deposit)	135.94	188.08	128.06	163.97	169.54	183.90	197.08
8	Guarantee Fee	1.52	0.55	1.24	0.55	0.55	0.55	0.55
9	Depreciation	167.47	167.21	178.80	196.42	222.31	247.52	276.08
10	Return on Equity	114.55	106.82	117.87	166.95	192.27	215.07	240.62
11	Interest on Working Capital	0.00	96.88	121.86	135.02	123.20	129.02	135.36
12	Net Impact of Loss/(Gain)Sharing	0.00	(6.60)					
13	**Gross Expenditure**	**7231.69**	**6632.22**	**7287.63**	**7366.84**	**7988.09**	**8587.92**	**9238.05**
B.	Less: Non-tariff income	244.41	286.81	282.72	286.81	286.81	286.81	286.81
	True up impact of previous year Gap/(Surplus)	(30.16)	(30.16)	620.30	0.00	178.38	0.00	0.00
C.	**Aggregate Revenue Requirement**	**6957.12**	**6315.25**	**7625.22**	**7080.03**	**7879.66**	**8301.11**	**8951.24**
D.	Revenues from Existing/Approved Tariffs	**7052.99**	**6172.78**	**7684.78**	-	**7432.10**	-	-
E.	**Revenue Gap/(Surplus) (C –D)**	**(95.87)**	**178.38^**	**(59.55)**	-	**447.56**	-	-

#including Water tax&RPO
^including Carrying Cost of Rs. 35.91 Crore

3. UPCL has, accordingly, projected a total revenue gap of Rs.447.56 Crore including truing up impact for FY 2020-21.
4. For FY 2022-23, UPCL has projected the distribution loss level of 13.50% based on the loss trajectory proposed in the business plan. It is also to mention that for projecting the power purchase cost for FY 2021-22 from UJVN Ltd. stations and Central Sector Generating Stations, UPCL has prorated actual Fixed Cost including arrears of 6 months to compute total fixed cost for FY 2021-22 and used an yearly escalation rate of 3% on FY 2021-22 to arrive at Fixed Cost for FY 2022-23 to FY 2024-25. Further, the variable cost have been projected based on the per unit rate of the actual variable cost for FY 2021-22 after using an yearly escalation rate of 3% per annum to arrive at variable cost for FY 2022-23 to FY 2024-25. Inter-state transmission charges (PGCIL charges) have been projected on "per unit basis", i.e. power projected to be procured from outside based on the actual per unit cost paid for FY 2021-22 escalated by 3%. For Intra-state transmission charges (PTCUL charges) and SLDC charges, UPCL has considered the actual 6 months charges pro-rated to complete FY 2021-22 and the annual transmission charges of FY 2021-22 along with the yearly escalation of 3% is considered for arriving the charges for FY 2022-23 to FY 2024-25.
5. UPCL has proposed to recover the revenue gap of Rs. 447.56 Crore relating to true up for FY 2020-21 and projected ARR & tariff for FY 2022-23 through tariff hike in the FY 2022-23. UPCL has, accordingly, proposed an average tariff hike of 6.02% in the existing retail tariffs of consumers.
6. Further, PTCUL, SLDC and UJVN Ltd. have also submitted their ARR and Tariff Petition for the FY 2022-23 before the Commission. If all the claims as proposed are accepted by the Commission it would necessitate a hike of 10.18% in consumer tariffs for FY 2022-23.
7. UPCL has proposed to revise the applicable tariffs for FY 2022-23 to meet the revenue gap of Rs. 447.56 Crore. The tariff proposals are as below:

Category	Fixed / Demand Charges		Energy Charges	
	Existing	Proposed	Existing	Proposed
RTS-1: Domestic				
1.1 Life Line Consumers	18 Rs. /Connection/month	18 Rs. / Connection/ month	1.61 Rs/kWh	1.61 Rs/kWh
1.2 Other Domestic Consumers				
(i) Upto 100 Units/month	60 Rs./connection/month	62 Rs./connection/month	2.80 Rs/kWh	2.87 Rs/kWh
(ii) 101-200 Units/month	120 Rs./connection/month	126 Rs. /connection/month	4.00 Rs/kWh	4.22 Rs/kWh
(iii) 201-400 Units/month	200 Rs./connection/month	215 Rs./connection/month	5.50 Rs/kWh	5.92 Rs/kWh
(iv) Above 400 Units/month	300 Rs./connection/month	330 Rs./connection/month	6.25 Rs/kWh	6.88 Rs/kWh
1.3. Single Point Bulk Supply above 75 kW	95 Rs/kW/month	105 Rs/kW/month	5.15 Rs/kWh	5.67 Rs/kWh
RTS-1A: Snowbound				
Domestic	18 Rs./connection/month	18 Rs./Connection/month	1.61 Rs/kWh	1.61 Rs/kWh
Non-Domestic upto 1 kW			1.61 Rs/kWh	1.61 Rs/kWh
Non-Domestic above 1 kW &upto 4 kW			2.36 Rs/kWh	2.36 Rs/kWh
Non-Domestic above 4 kW	30 Rs./connection	30 Rs./connection/month	3.51 Rs/kWh	3.51 Rs/kWh

Category	Fixed / Demand Charges		Energy Charges	
	Existing	Proposed	Existing	Proposed
RTS-2: Non-Domestic				
1. (i) Government/Municipal Hospitals (ii) Government/Government Aided Educational Institutions (iii) Charitable Institutions registered under the Income Tax Act, 1961 and whose income is exempted from tax under this Act.				
1.1 Upto 25 kW	75 Rs/kW/month	80 Rs/kW/month	4.65 Rs/kWh	4.93 Rs/kWh
1.2 Above 25 kW	85 Rs/kVA/month	92 Rs/kVA/month	4.40 Rs/kVAh	4.75 Rs/kVAh
2. Other non-Domestic/Commercial Users				
2.1 Small shops (Load upto 4 KW & consumption upto 50 units pm)	70 Rs/kW/month	70 Rs/kW/month	4.70 Rs/kWh	4.70 Rs/kWh
2.2 Upto 25 kW other than above	90 Rs/kW/month	95 Rs/kW/month	5.80 Rs/kWh	6.15 Rs/kWh
2.3 Above 25 kW	90 Rs/kVA/month	96 Rs/kVA/month	5.80 Rs/kVAh	6.21 Rs/kVAh
3. Single Point Bulk Supply above 75 kW	90 Rs/kVA/month	99 Rs/kVA/month	5.75 Rs/kVAh	6.33 Rs/kVAh
4.0 Independent Advertisement Hoardings	110 Rs/kW/month	121 Rs/kW/month	6.40 Rs/kWh	7.04 Rs/kWh
RTS-3: Govt. Public Utilities				
1. Metered (Urban)	90 Rs/kVA/month	99 Rs/kVA/month	5.80 Rs/kVAh	6.38 Rs/kVAh
2. Metered (Rural)	80 Rs/kVA/month	86 Rs/kVA/month	5.80 Rs/kVAh	6.21 Rs/kVAh
RTS-4: Private Tube-wells / Pumping sets				
1. Metered	-	-	2.08 Rs/kWh	2.08 Rs/kWh
RTS-4 A: Agriculture Allied Activities				
1. Metered	-	-	2.75 Rs/kWh	3.03 Rs/kWh
RTS-5: LT & HT Industry				
LT Industries- Contracted load upto 75kW (100 BHP)				
1.1 LT Industries (Upto 25 kW)	155 Rs/kW/month	163 Rs/kW/month	4.60 Rs/kWh	4.83 Rs/kWh
1.2 LT Industries (above 25kW &upto 75 kW)	160 Rs/kVA/month	168 Rs/kVA/month	4.30 Rs/kVAh	4.52 Rs/kVAh
HT Industries (above 75 KW/88KVA)				
2.1 Contracted load upto 1000 kVA				
1- Load factor upto 40%	340 Rs/kVA of billable demand	369 Rs/kVA of billable demand	4.45 Rs/kVAh	4.70 Rs/kVAh
2-Load factor above 40%	340 Rs/kVA of billable demand	369 Rs/kVA of billable demand	4.85 Rs/kVAh	5.10 Rs/kVAh
2.2 Contracted load above 1000 kVA				
1- Load factor upto 40%	410 Rs/kVA of billable demand	445 Rs/kVA of billable demand	4.45 Rs/kVAh	4.70 Rs/kVAh
2-Load factor above 40%	410 Rs/kVA of billable demand	445 Rs/kVA of billable demand	4.85 Rs/kVAh	5.10 Rs/kVAh
RTS-6: Mixed Load				
Mixed Load Single Point Bulk Supply above 75 kW including MES	110 Rs/kW/month	117 Rs/kW/month	5.45 Rs/kWh	5.78 Rs/kWh
RTS-7: Railway Traction				
Railway Traction	265 Rs/kVA/month	281 Rs/kVA/month	4.70 Rs/kVAh	4.98 Rs/kVAh
RTS-8: Electric Vehicle Charging Station				
Electric Vehicle Charging Station	-	-	5.50 Rs/kWh	5.50 Rs/kWh

ToD charges for the industries:

Industries	Rate of charge during		
	Normal hours	Peak hours	Off-peak hours
LT Industries	Rs. 4.52/kVAh	Rs. 6.77/kVAh	Rs. 3.61/kVAh
HT Industries with Load Factor			
Upto 40%	Rs. 4.70/kVAh	Rs. 7.65/kVAh	Rs. 3.76/kVAh
Above 40%	Rs. 5.10/kVAh	Rs. 7.65/kVAh	Rs. 4.08/kVAh

8. In addition, UPCL has also proposed following:
   (a) No tariff hike has been proposed for BPL & PTW Consumers.
   (b) Continuation of prepaid metering scheme.
   (c) Rationalisation of Fixed Charges in Domestic & HT Industry Category.
   (d) Nominal hike of 2.5% for 0-100 slab in other Domestic category
   (e) Average 5-6% hike in other slabs of other Domestic category
   (f) Average 6.4% hike in Non-domestic category
   (g) Average 5.0% in LT Industrial category
   (h) Average 5.7% in HT Industrial category
   (I) Proposed Green Power Scheme for RTS-5 HT Industry with load above 88 kVA/75 kW (100 BHP) to supply green power to interested consumers and sought determination of green power tariff.
   (j) Proposed Electric Vehicle Charging Tariff to be in line with tariff for Domestic Category.
9. Detailed Petition can be seen free of cost on any working day at the Commission's office or at the offices of Chief Engineer (Commercial) at Victoria Cross Vijeta Gabar Singh Urja Bhawan, Kanwali Road, Dehradun/Chief Engineer (Distribution), Garhwal Zone, UPCL, 120-Haridwar Road, Dehradun/Chief Engineer (Distribution), Kumaon Zone, UPCL, 132-KV Substation, Kathgodam, Haldwani/ Chief Engineer (Distribution), Haridwar Zone, UPCL, Roshnabad, Haridwar / Chief Engineer (Distribution), Udham Singh Nagar Zone, UPCL, 33KV Sub-Station, Sector-2, SIDCUL, Pantnagar, Rudrapur-263153. Relevant extracts can also be obtained from the above mentioned offices of the Petitioner
10. The Petition is also available at the website of the Commission (www.uerc.gov.in) and at the Petitioner's website (**www.upcl.org**).
11. Responses/suggestions, if any, are sought from consumers and other stakeholders on the Petition. Responses may be sent to the Secretary, Uttarakhand Electricity Regulatory Commission, either in person, or by post at 'Vidyut Niyamak Bhawan', Near ISBT, PO-Majra, Dehradun-248171 or through e-mail to secy.uerc@gov.in by **31.01.2022**. Responses/suggestions, if any, may also be dropped at the drop boxes installed at every sub-stations of UPCL in an envelope addressed to Secretary, Uttarakhand Electricity Regulatory Commission by **31.01.2022**.

No :-8/2/EE(CM)/UPCL/A-2 Dt. 23.12.2021

Managing Director

SAVE ELECTRICITY IN THE INTEREST OF THE NATION. Use LED Bulb Save Electricity. (Toll Free No. 1912) "Pay Electricity bill online 24x7 from www.upcl.org" (For information on Electricity Theft, Informer may report to Toll Free No. 1800 180 4185/ Fax No. 0135-2760911)

UTTARAKHAND POWER CORPORATION LTD.

(A Govt. of Uttarakhand Undertaking)

Victoria Cross Vijeta Gabar Singh Urja Bhawan, Kanwali Road, Dehradun-248001,

Corporate Identity No. U40109UR2001SGC025867

E-mail ID:- cgmupcl@yahoo.com Website:-www.upcl.org

PUBLIC NOTICE

Inviting Comments on the Petition filed by UPCL for approval of Business Plan for the Control Period FY 2022-23 to FY 2024-25 before the Uttarakhand Electricity Regulatory Commission

1. Uttarakhand Power Corporation Limited (UPCL), the sole Distribution and Retail Supply Licensee in the State, has filed a Petition before Uttarakhand Electricity Regulatory Commission (UERC or Commission) for approval of its Business Plan for the Control Period FY 2022-23 to FY 2024-25 giving details of the activities proposed to be carried out by it during this Control Period.
2. Detailed Petition can be seen free of cost on any working day at the Commission's office or at the offices of Chief Engineer (Commercial) at Victoria Cross Vijeta Gabar Singh Urja Bhawan, Kanwali Road, Dehradun/ Chief Engineer (Distribution), Garhwal Zone, UPCL, 120-Haridwar Road, Dehradun/Chief Engineer (Distribution), Kumaon Zone, UPCL, 132-KV Substation, Kathgodam, Haldwani/ Chief Engineer (Distribution), Haridwar Zone, UPCL, Roshnabad, Haridwar/ Chief Engineer (Distribution), Udham Singh Nagar Zone, UPCL, 33KV Sub-Station, Sector-2, SIDCUL, Pantnagar, Rudrapur-263153. Relevant extracts can also be obtained from the above mentioned offices of the Petitioner
3. The Petition is also available at the website of the Commission **(www.uerc.gov.in)** and at the Petitioner's website **(www.upcl.org).**
4. Responses/suggestions, if any, are sought from consumers and other stakeholders on the Petition. Responses may be sent to the Secretary, Uttarakhand Electricity Regulatory Commission, either in person, or by post at **'Vidyut Niyamak Bhawan', Near I.S.B.T, PO-Majra, Dehradun-248171** or through e-mail to **secy.uerc@gov.in** by **31.01.2022.** Responses/suggestions, if any, may also be dropped at the drop boxes installed at every sub-stations of UPCL in an envelope addressed to Secretary, Uttarakhand Electricity Regulatory Commission by the stipulated date.

No:. 07/EE(CM)/UPCL/A-2 **Dated: 23.12.2021** **Managing Director**

SAVE ELECTRICITY IN THE INTEREST OF NATION. Use LED Bulb, Save Electricity. (Toll Free No. 1912) "Pay Electricity Bill online 24x7 from www.upcl.org" (For Information on Electricity theft, informer may report to Toll Free No. 1800 180 4185/ Fax No. 0135-2760911)

9.4 Annexure 4: List of Respondents

Sl. No.	Name	Designation	Organization	Address
1.	Sh. R.K. Singh	Head (CPED and Construction & E)	M/s Tata Motors Ltd.	Plot No.-1, Sector-11, Integrated Industrial Estate, SIDCUL, Pantnagar-263153, Distt. Udhamsingh Nagar.
2.	Sh. Pankaj Gupta	President	Industries Association of Uttarakhand	Mohabewala Industrial Area, Dehradun-248110
3.	Sh. Jogendra Behera	Vice President (Market Design & Economics)	Indian Energy Exchange Ltd. (IEX)	Plot No. C-001/A/1, 9th Floor, Max Towers, Sector 16B, Noida, Gautam Buddha Nagar, Uttar Pradesh–201301
4.	Sh. Shakeel A. Siddiqui	Legal Consultant	M/s Galwalia Ispat Udyog Pvt. Ltd.	Narain Nagar Industrial Estate, Bazpur Road, Kashipur-244713, Distt. Udham Singh Nagar
5.	Sh. Kartikay Tomar	Partner	M/s PSR Innovations LLP	Village-Gopipura, Post-R.T.C. Hempur, Kashipur-244716, Distt. Udham Singh Nagar
6.	-	-	M/s Ganesh Roller Flour Mills	Mohabewala Industrial Area, Subhash Nagar, Dehradun
7.	Sh. Man Singh	General Manager (Engg.)	M/s Alps Industries Ltd.	Haridwar Unit-II, Plot No. 1 B, Sector-10, Integrated Industrial Estate, SIDCUL, Roshanabad Road, Distt. Haridwar
8.	Sh. Ram Kumar Agarwal	-	M/s Umashakti Steels Pvt. Ltd.	Village-Vikrampur, Post Off.-Bazpur–262401, Distt. Udhamsingh Nagar
9.	Sh. Vikas Jindal	President	M/s Kumaon Garhwal Chamber of Commerce & Industry Uttarakhand	Chamber House, Industrial Estate, Bazpur Road, Kashipur, Distt. Udhamsingh Nagar
10.	Sh. Sukkha Singh Virk	Former Member	State Planning Commission-Uttaranchal	Village-Chattarpur, Rudrapur, Distt. Udhamsingh Nagar
11.	Sh. Teeka Singh Saini	Block President	Bhartiya Kisan Union	Office-33, Katoratal, Kashipur, Distt. Udhamsingh Nagar
12.	Sh. Sanjay Kumar Adhlakha	Director	M/s Ambashakti Glass India Pvt. Ltd.	Plot No. 41, Sector 3, IIE, Pantnagar, Rudrapur-263153, Distt. Udhamsingh Nagar
13.	Sh. Rajeev Gupta	-	M/s Kashi Vishwanath Steels Pvt. Ltd.	Narain Nagar Industrial Estate, Bazpur Road, Kashipur-244713, Distt. Udham Singh Nagar
14.	Sh. Ashok Bansal	President	M/s Kumaon Garhwal Chamber of Commerce & Industry Uttarakhand	Chamber House, Industrial Estate, Bazpur Road, Kashipur, Distt. Udhamsingh Nagar
15.	Sh. P.R. Bhasin	-	-	6, Green Park, Niranjanpur, Dehradun-248171, Uttarakhand
16. s	Sh. Hiresha Verma	-	M/s Han Agrocare	13, Prakash Lok, Phase-2, Shimla Bypass Road, Dehradun
17.	Sh. Manish Gera	Partner	M/s The Mushroom Barn	Village-Jalalpur Dada, Tehsil-Bhagwanpur, Haridwar

Sl. No.	Name	Designation	Organization	Address
18.	Sh. Naveen Patwal	Partner	M/s Welkin Overseas	Village-Kotwal Alampur, P.O.-Jhabrera, Roorkee-247665, Haridwar
19.	Sh. Naveen Patwal	Partner	M/s Welkin Foods	Khasra no. 504&506, Village-Sadhauli, P.O.-Jhabrera, Roorkee-247665, Haridwar
20.	Sh. Prashant Bhardwaj	-	M/s LPV Mushrooms	Roorkee, Haridwar
21.	-	-	M/s Natures Besto	Village-Naukragrant, Tehsil-Bhagwanpur, Haridwar
22.	Sh. Anurag Sharma	-	-	179, Kalidas Road, Dehradun
23.	Sh. Sanjeev Sharma	-	-	166/112, Kalidas Road, Dehradun
24.	Sh. Ashwini Kumar Sharma	-	-	166/112, Kalidas Road, Dehradun
25.	Sh. Vishal Bhardwaj	-	-	179, Kalidas Road, Dehradun
26.	Ms. Sunita Chaudhary	Proprietor	M/s Fusion Foods	Village-Kheda Jat, Post Off.-Gurukul Narsan, Distt. Haridwar
27.	-	Director	M/s Organature Agro Foods Pvt. Ltd.	Khasra No. 263/4 & 263/3/2, Mauza/Gram-Daulatpur, Hazratpur, URF Budhwa Shahid Bhagwanpur, Haridwar
28.	Sh. B.P. Maithani	President	RTI Club	"Roopsadan", 58-Salangaon, Bhagwantpur, Dehradun-248009
29.	Sh. Vijay Singh Verma	-	-	Village-Delna, P.O.-Jhabrera, Roorkee, Haridwar-247665
30.	Sh. S.K. Agrawal	Advocate	-	Chamber No. 40, South Block, Civil Court Compound, Dehradun
31.	Sh. Rajendra Kumar Chaudhary	General Secretary	Uttarakhand Congress Committee	423/35, Civil Lines, Roorkee, Distt. Haridwar
32.	Sh. Dhruv Agrawal	Partner	M/s Sterling Farms	Office : 30, Rajpur Road (Old Sales Tax Compound), Dehradun-248001
33.	Sh. S.P. Chauhan	Member	Sanyukta Nagrik Sangathan	Office-34, Phase-1, THDC Colony, Pathri Bagh, Dehradun
34.	Sh. Harindra Kumar Garg	Chairman	SIDCUL Manufacturers Association of Uttarakhand	5th Floor, Pentagon Mall, SIDCUL, Haridwar
35.	Sh. Sunil Kumar Gupta	Editor	Teesri Aankh ka Tehalka	16, Chakrata Road (Tiptop Gali), Dehradun-248001
36.	Sh. Atul Bhatt	General Secretary	Nagrik Manch	Regd. Office-Malviya Udhyan, Kotdwar-246149, Distt. Pauri Garhwal
37.	Sh. Ripudaman Singh Bisht	General Secretary	Varishtha Nagrik Sangathan	Office-Major Balam Singh Chandrawati Negi Sainik Kalyan Trust, Near Khushi Hotel, Devi Road, Kotdwar-246149, Distt. Pauri Garhwal
38.	Sh. Mahendra Singh Negi	-	-	Padampur, Sukhro, Near Sunil Tent House, Lalpur Road, Kotdwar (Garhwal), Uttarakhand

Sl. No.	Name	Designation	Organization	Address
39.	Sh. Nisheeth Kumar Maheshwari	Advocate	-	Badrinath Marg, Near Jhanda Chowk, Kotdwar-246149 (Garhwal), Uttarakhand
40.	Sh. Arvind Sharma	President	Human Rights & RTI Association	Office-Lakshmanpur Chowk, Vikasnagar, Dehradun
41.	Sh. B.K. Joshi	-	-	LIG-43, Awas Vikas Colony, Haldwani, Nainital

9.5 Annexure 4: List of Participants in Public Hearings

List of Participants in Hearing at Ranikhet on 26.02.2022

S.No.	Name of the Participants	Designation	Organization	Postal Address
1.	Sh. Amar Singh Areda	-	-	Sadar Bazar, Vaani Photostat Shop, Ranikhet, Uttarakhand
2.	Sh. Harish Kumar	-	-	Hotel Ranikhet Grant, Ranikhet, Uttarakhand
3.	Sh. Rakesh Verma	-	-	Office of SDE (Rural), Bharat Sanchar Nigam Ltd. (BSNL), Almora, Uttarakhand
4.	Sh. Manish Chaudhary	-	-	511, Sadar Bazar, Ranikhet, Uttarakhand
5.	Sh. Mohan Negi	-	-	Subhash Chowk, Ranikhet, Uttarakhand
6.	Sh. Nikhil Kumar	-	-	Bhatt Photostat Shop, Gandhi Chowk, Ranikhet, Uttarakhand
7.	Sh. Rohit Sharma	-	-	Village–Badhan Chiliyanaula, Ranikhet, Uttarakhand
8.	Sh. Ajay Kumar Bablu	-	-	825, Gandhi Chowk, Ranikhet, Uttarakhand

List of Participants in Hearing at Rudrapur on 27.02.2022

S.No.	Name of the Participants	Designation	Organization	Postal Address
1.	Sh. Balkar Singh Fauzi	-	-	Village-Raipur Khurd, P.O.-Kashipur, Distt. Udhamsingh Nagar
2.	Sh. Rajiv Bhatnagar	-	-	D-1/4, Flat No. 61, Metropolis City, IIE, SIDCUL, Pantnagar, Rudrapur, Distt. Udhamsingh Nagar
3.	Sh. Kalyan Singh	-	-	Village-Ghardei, P.O.–Mahuakhera, Kashipur, Distt. Udhamsingh Nagar
4.	Sh. Arunesh Kumar Singh	-	-	Phalsunga, P.O.-Transit Camp, Rudrapur, Distt. Udhamsingh Nagar
5.	Sh. Vikas Jindal	President	M/s Kumaon Garhwal Chamber of Commerce & Industry Uttarakhand	Chamber House, Industrial Estate, Bazpur Road, Kashipur, Distt. Udhamsingh Nagar
6.	Sh. Shakeel A. Siddiqui	Legal Consultant	M/s Galwalia Ispat Udyog Pvt. Ltd.	Narain Nagar Industrial Estate, Bazpur Road, Kashipur-244713, Distt. Udham Singh Nagar
7.	Sh. R.K. Singh	Head (CPED and Construction & E)	M/s Tata Motors Ltd.	Plot No.-1, Sector-11, Integrated Industrial Estate, SIDCUL, Pantnagar-263153, Distt. Udhamsingh Nagar.
8.	Sh. Ashok Bansal	Managing Director	M/s Rudrapur Solvents Pvt. Ltd.	7th KM Stone, Rudrapur-Kichha Road, V.P.O. Lalpur-263148, Distt. Udham Singh Nagar
9.	Sh. Deepak Saini	-	M/s SRF Ltd.	Plot No. 12, Ramnagar Road, Kashipur, Distt. Udham Singh Nagar
10.	Sh. Jagdeesh Singh	-	-	Village-Dharampur, P.O. Chattarpur, Distt. Udham Singh Nagar
11.	Sh. Keshav Sharma	-	-	Village-Fauzi Matkota, Rudrapur, Distt. Udham Singh Nagar
12.	Sh. Prabhu Singh	-	-	Verma Line, Ward No. 3, Tanakpur, Champawat
13.	Sh. Umesh Sharma	Chairman (Power Cell)	SIDCUL Entrepreneur Welfare Society	Plot No. 1, Sector-9, IIE, SIDCUL, Pantnagar Industrial Area, Rudrapur, Distt. Udhamsingh Nagar-263153
14.	Sh. Deepak Kumar	-	M/s Nestle India Ltd.	Plot No. 1A, Sector-1, Pantnagar, SIDCUL Industrial Area Road, Distt. Udham Singh Nagar-263153
15.	Sh. Sukha Singh Virk	-	-	Village & P.O. Chattarpur, Rudrapur, Distt. Udham Singh Nagar
16.	Sh. Sanjeev Kumar	Sr. General	M/s Surya Roshni	7th KM Stone, Moradabad Road,

S.No.	Name of the Participants	Designation	Organization	Postal Address
		Manager (HR)	Ltd.	Kashipur, Distt. Udham Singh Nagar
17.	Sh. Praveen Singh	-	M/s Sanjay Technoplast Pvt. Ltd.	Pant Nagar Plant : Khata No. 182, Khasra No. 301 Min., Village-Fulsunga, Tehsil-Kichha, Rudrapur-263153, Distt. Udham Singh Nagar
18.	Sh. Ram Kumar Agarwal	-	M/s Umashakti Steels Pvt. Ltd.	Village-Vikrampur, Post Off.-Bazpur–262401, Distt. Udhamsingh Nagar
19.	Sh. Sanjay Kumar Adhlakha	Director	M/s Ambashakti Glass India Pvt. Ltd.	Plot No. 41, Sector 3, IIE, Pantnagar, Rudrapur-263153, Distt. Udhamsingh Nagar
20.	Sh. Teeka Singh Saini	Block President	Bhartiya Kisan Union	Office-33, Katoratal, Kashipur, Distt. Udhamsingh Nagar
21.	Sh. Sheetal Singh	-	-	Village-Jagatpur Patti, Kashipur, Distt. Udhamsingh Nagar
22.	Sh. Dakshin Singh Deol	-	-	Village-Bharatpur, Kashipur, Distt. Udhamsingh Nagar
23.	Sh. Jaagir Singh	-	-	Village-Bharatpur, Kashipur, Distt. Udhamsingh Nagar
24.	Sh. Rajeev Gupta	-	M/s Kashi Vishwanath Steels Pvt. Ltd.	Narain Nagar Industrial Estate, Bazpur Road, Kashipur-244713, Distt. Udham Singh Nagar
25.	Sh. Prem Narayan Singh	General Manager	M/s Shree Ambuja Castings (P) Ltd.	Village-Vikrampur, Industrial Estate, Ramraj Road, Bazpur–262401, Distt. Udhamsingh Nagar
26.	Sh. Rajeev Jindal	Director	M/s Uttaranchal Ispat (P) Ltd.	Plot No. D-1 to D-8, Pipalia Industrial Area, Gram-Jagannathpur, Bazpur, Distt. Udham Singh Nagar
27.	Sh. Chandresh Agarwal	Dy. General Manager (Electricals)	M/s India Glycols Ltd.	A-1, Industrial Area, Bazpur Road, Kashipur-244713, Distt. Udham Singh Nagar.

List of Participants in Hearing at Dehradun on 02.03.2022

S.No.	Name of the Participants	Designation	Organization	Postal Address
1.	Sh. B.P. Maithani	President	RTI Club	"Roopsadan", 58-Salangaon, Bhagwantpur, Dehradun-248009
2.	Sh. Yagya Bhushan Sharma	Secretary	RTI Club (Uttarakhand)	827/1, Sirmour Marg, Kaulagarh Road, Dehradun
3.	Sh. S.K. Singh	-	-	Dashmesh Vihar, Raipur Road, Dehradun
4.	Sh. Kawaljeet Singh	-	-	Dashmesh Vihar, Raipur Road, Dehradun
5.	Sh. Vijay Singh Verma	-	-	Village-Delna, P.O. Jhabrera, Roorkee-247665, Haridwar
6.	Sh. Shailendra Semwal	-	-	Mohkampur, Dehradun
7.	Sh. Veeru Bisht	-	-	Mohanpur, Post Off.-Premnagar, Dehradun-248007
8.	Sh. Vishwa Mitra	-	-	36, Panchsheel Park, Chakrata Road, Dehradun-248006
9.	Sh. D.S. Rawat	-	-	Village-Odda, P.O.-Khandusain, Pauri Garhwal-246001
10.	Sh. Rajendra Chaudhary	General Secretary	Uttarakhand PCC	423/35, Civil Lines, Roorkee, Haridwar
11.	Sh. V.S. Bhatnagar	-	-	98/3, Near Hilton School, Bell Road, Clement Town, Dehradun
12.	Sh. Sunil Kumar Gupta	Editor	Teesri Aankh ka Tehalka	16, Chakrata Road (Tiptop Gali), Dehradun-248001
13.	Sh. Kavindra Singh Bisht	-	-	1148, Indira Nagar Colony, Seemadwar, Dehradun
14.	Sh. K.S. Pundir	-	-	House No. 2, Shantikunj, Lane No. 1-A, Lower Nathanpur, Dehradun
15.	Sh. S.P. Nautiyal	-	-	Lower Nehrugram, Dehradun
16.	Sh. S.K. Agrawal	Advocate	-	Chamber No. 40, South Block, Civil Court Compound, Dehradun
17.	Sh. Manvendra Singh	-	-	Sewla Khurd, Dehradun
18.	Sh. Surya Prakash	-	-	271/153, Dharampur, Araghar, One-way Haridwar Road, Dehradun
19.	Sh. Brijendra Mohan Joshi	-	-	46-C, Pathribagh, Dehradun
20.	Sh. Satya Prakash Chauhan	-	-	Bhagirathipuram, Tea Estate, Banjarawala, Dehradun
21.	Sh. Kishor Singh			Jwalpa Enclave, Near Jwalpa Mandir,

S.No.	Name of the Participants	Designation	Organization	Postal Address
	Rawat			Mohkampur, Dehradun
22.	Sh. Pankaj Gupta	President	M/s Industries Association of Uttarakhand	C/o Satya Industries, Mohabbewala Industrial Area, Dehradun
23.	Sh. Rajiv Agarwal	Sr. Vice-President	M/s Industries Association of Uttarakhand	C/o Satya Industries, Mohabbewala Industrial Area, Dehradun-248 110
24.	Sh. Sanjeev Kumar Sharma	Office Executive	M/s Industries Association of Uttarakhand	C/o Satya Industries, Mohabbewala Industrial Area, Dehradun
25.	Sh. Kamaldeep Kamboj	-	-	G-3, Janpath Shopping Complex, Chakrata Road, Dehradun
26.	Sh. Gulshan Khanduri	-	M/s Ganesh Roller Flour Mills	Mohabewala Industrial Area, Subhash Nagar, Dehradun
27.	Sh. Vishal Bhardwaj	-	-	Buggawala, Haridwar
28.	Sh. Manmohan Bhardwaj	-	-	Buggawala, Haridwar
29.	Sh. Naveen Patwal	-	-	Khasra no. 504&506, Village-Sadhauli, P.O.-Jhabrera, Roorkee-247665, Haridwar
30.	Sh. Manish Gera	-	-	Village-Jalalpur Dada, Tehsil-Bhagwanpur, Haridwar
31.	Sh. Prashant Bhardwaj	-	-	Sai Lok, GMS Road, Dehradun
32.	Sh. Anurag Sharma	-	-	Buggawala, Haridwar
33.	Sh. Arvind Sharma			Buggawala, Haridwar
34.	Sh. Hiresha Verma	-	-	13, Prakash Lok, Phase-2, Shimla Bypass Road, Dehradun
35.	Ms. Sunita Chaudhary	-	-	Village-Kheda Jat, Post Off.-Gurukul Narsan, Distt. Haridwar
36.	Sh. Dinesh Kumar Walia	-	-	Jagjeetpur, Near Chatriwala Kua, P.O.-Kankhal, Haridwar
37.	Sh. Dhruv Agrawal	-	-	8, Kalidas Road, Hathibarkala, Dehradun-248001

List of Participants in Hearing at Kotdwar on 08.03.2022

S.No.	Name of the Participants	Designation	Organization	Postal Address
1.	Sh. Daulat Singh Rawat	-	-	Village-Maganpur, P.O.- Kishanpur, Kotdwar, Distt. Pauri Garhwal
2.	Sh. Kunwar Singh Rawat	-	-	Village-Maganpur, P.O.- Kishanpur, Kotdwar, Distt. Pauri Garhwal
3.	Sh. Mahendra Singh Negi	-	M/s Pushkar Steel Pvt. Ltd.	Padampur, Sukhro, Near Sunil Tent House, Lalpur Road, Kotdwar (Garhwal), Distt. Pauri Garhwal
4.	Sh. Subhash Chand	-	M/s Pushkar Steel Pvt. Ltd.	Jasodarpur, Kotdwar, Distt. Pauri Garhwal
5.	Sh. Arun Bahuguna	-	M/s Kotdwar Steel Pvt. Ltd.	Block-E, Jasodarpur Industrial Area, Maganpur, Kotdwar, Distt. Pauri Garhwal
6.	Sh. Sunil Singh Rawat	-	-	SLB-103, Aashiyana Housing Society, Near Motor Nagar, Behind Khushi Hotel, BAV Road, Sitabpur, Kotdwar-246149, Distt. Pauri Garhwal
7.	Sh. Devendra Pal Singh	-	-	Near Balaji Mandir, Lower Kalabarh, Kotdwar, Distt. Pauri Garhwal
8.	Sh. Jagdish Prasad Bhardwaj	-	-	Lalpul, Beladaat, P.O.-Padampur, Kotdwar, Distt. Pauri Garhwal
9.	Sh. J.S. Rana	-	-	Gusain Purum Colony, Sitabpur, Devi Road, P.O.-Kotdwar, Distt. Pauri Garhwal
10.	Sh. Pawan Agarwal	Vice-President	M/s Uttarakhand Steel Manufacturers Association	C/o Shree Sidhbali Industries Ltd., Kandi Road, Kotdwar, Uttarakhand
11.	Sh. Ripudaman Bisht	General Secretary	Senior Resident Sangathan	Office-Major Balam Singh Chandrawati Negi Sainik Kalyan Trust, Near Khushi Hotel, Devi Road, Kotdwar-246149, Distt. Pauri Garhwal
12.	Sh. Kulbeer Singh Rawat	-	-	Village-Balasaur, Near Saraswati Vidya Mandir, Jankinagar-246149, Kotdwar, Distt. Pauri Garhwal
13.	Sh. A.K. Badola	-	-	House No.-17, Govind Nagar, Kotdwar-246149, Distt. Pauri Garhwal
14.	Sh. Atul Bhatt	-	Nagrik Manch	Malviya Udhyan, Kotdwar, Distt. Pauri Garhwal
15.	Sh. Chandresh Kumar Lakhera	-	-	Village-Lalpani, P.O.- Kumbhichaur, Ward No.-3, Kotdwar, Distt. Pauri

S.No.	Name of the Participants	Designation	Organization	Postal Address
				Garhwal
16.	Sh. Indra Mohan Singh	-	-	Lower Kalabarh, Near Balaji Mandir, Kotdwar, Distt. Pauri Garhwal
17.	Sh. Rajesh Kumar	-	M/s Bhagya Shree Steel & Alloys Pvt. Ltd.	Jasodarpur, Kotdwar, Distt. Pauri Garhwal
18.	Sh. Balveer Singh Rawat	-	-	Village-Balasaur, Kotdwar, Distt. Pauri Garhwal
19.	Dr. Chandra Mohan Kharkwal	-	-	Sitabpur, Kotdwar, Distt. Pauri Garhwal
20.	Sh. Chandra Mohan Singh Negi	-	-	Shiv Nagar, Devi Road, Kotdwar, Distt. Pauri Garhwal
21.	Sh. Brijpal Singh Negi	-	-	Manpur, Kotdwar, Distt. Pauri Garhwal
22.	Sh. Anil Singh Negi	-	-	Near MKVN International School, Shibbu Nagar, Kotdwar, Distt. Pauri Garhwal
23.	Sh. Mujib Naithani	-	-	Lansdowne Bhawan, Near Devi Mandir, Sitabpur, Kotdwar, Distt. Pauri Garhwal
24.	Sh. Sandeep Joshi	-	-	Village-Sitabpur, Kotdwar, Distt. Pauri Garhwal
25.	Sh. Abhay Kala	-	-	Village-Kashirampur, Near Maheshwari Petrol Pump, Najibabad Road, Kotdwar-246149, Distt. Pauri Garhwal
26.	Sh. Digmohan Negi	-	-	Village-Chamolsain, P.O.-Banghat, Satpuli-246172, Distt. Pauri Garhwal
27.	Sh. Manorath Nirala	-	-	C/o Sh. Kailash Bisht, Near Patwal Chakki, Circuit House Road, Distt. Pauri Garhwal-246001
28.	Sh. D. S. Rawat	-	-	Village-Odda, P.O.-Khandyusain, Block-Koti, Distt. Pauri Garhwal-246001
29.	Sh. Rajendra Jajedi	-	-	Ward No. 3, Lalpani, Kotdwar, Distt. Pauri Garhwal
30.	Sh. Mahendra Pal Singh Rawat	-	-	Village-Ratanpur, P.O.-Kumbhichaur, Ward No.-1, Kotdwar, Distt. Pauri Garhwal
31.	Sh. Chandra Mohan Singh Rawat	-	-	Village-Jeetpur, P.O.- Kumbhichaur, Kotdwar, Distt. Pauri Garhwal
32.	Sh. Rohit Dandriyal	-	-	399, Shayama Vihar Colony,

S.No.	Name of the Participants	Designation	Organization	Postal Address
				Padampur, Sukhron, Kotdwar, Distt. Pauri Garhwal
33.	Sh. Harendra Singh Negi	-	-	Near Panchayat Ghar, Shibu Nagar, Kotdwar, Distt. Pauri Garhwal
34.	Sh. Umed Rawat	-	-	Badrinath Road, Near GGIC, Padampur, Sukhron, Kotdwar-246149, Distt. Pauri Garhwal
35.	Sh. Ashish Kimothi	-	-	Kalabarh, Kotdwar, Distt. Pauri Garhwal