Order

on Approval of
Business Plan and Multi Year Tariff
for Third Control Period
(FY 2019-20 to FY 2021-22),
Annual Performance Review for
FY 2018-19
and True Up for FY 2017-18
For

UJVN Ltd.

February 27, 2019

Uttarakhand Electricity Regulatory Commission
Vidyut Niyamak Bhawan, Near I.S.B.T., P.O. Majra
Dehradun – 248171

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UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No.: 59 of 2018

&

Petition Nos. 60 to 69 of 2018

In the Matter of:

Petition filed by UJVN Ltd. for approval of Business Plan for Third Control Period from FY 2019-20 to FY 2021-22.

AND

In the Matter of:

Petition filed by UJVN Ltd. for True Up for FY 2017-18, Annual Performance Review for FY 2018-19 and determination of Multi Year Tariff for Third Control Period from FY 2019-20 to FY 2021-22 for 10 LHPs.

AND

In the Matter of:

UJVN Ltd.

UJJWAL, Maharani Bagh, GMS Road, Dehra Dun-248006 ....Petitioner

Coram

Shri Subhash Kumar Chairman

Date of Order: February 27, 2019

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 specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC. The Commission had issued the MYT Order dated May 6, 2013 for the First Control Period from FY 2013-14 to FY 2015-16. In accordance with the provisions of the UERC Tariff Regulations, 2011, the Commission had carried out the Annual Performance Review for FY 2013-14, FY 2014-15 and FY 2015-16 vide its Orders dated April 10, 2014, April 11, 2015 and April 5, 2016 respectively.

Further, in accordance with relevant provisions of the Act, the Commission had notified 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 specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC. The Commission had issued the MYT Order on approval of Business Plan and Multi Year Tariff Order dated April 5, 2016 for the Second Control Period from FY 2016-17 to FY 2018-19. In accordance with the provisions of the UERC Tariff Regulations, 2015, the Commission had carried out the Annual Performance Review for FY 2016-17 and FY 2017-18 vide its Order dated March 29, 2017 and March 21, 2018 respectively.

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, 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. In compliance with the provisions of the Act and Regulation 8(1) and Regulation 10(1) of UERC Tariff Regulations, 2018, UJVN Limited (hereinafter referred to as "UJVN Ltd." or" Petitioner") filed separate Petition for approval of its Business Plan for the Third Control Period from FY 2019-20 to FY 2021-22 (Petition No. 59 of 2018 hereinafter referred to as the "Business Plan Petition") and Multi Year Tariff Petition (Petition Nos. 60 to 69 of 2018 hereinafter referred to as the "MYT Petition") on November 30, 2018. UJVN Ltd., in its Business Plan Petition, has submitted the Capital Investment Plan, Financing Plan, Human Resources Plan and trajectory of performance parameters for the Third Control Period. Further, through the MYT Petition, UJVN Ltd. has submitted station wise detailed calculations of its projected Aggregate Revenue Requirement for the Third Control Period from FY 2019-20 to FY 2021-22 as per the UERC Tariff Regulations, 2018. Through the MYT Petition, the Petitioner has also requested for True Up of FY 2017-18 based on the audited accounts in accordance with UERC Tariff Regulations, 2015 and Annual Performance Review of FY 2018-19.

The Business Plan Petition filed by UJVN Ltd. had certain infirmities/deficiencies which were informed to UJVN Ltd. vide Commission's letter no. UERC/6/TF/508/2018-19/1239 dated December 6, 2018 and UJVN Ltd. was directed to rectify the said infirmities in the Petition and submit certain additional information necessary for admission of the Business Plan Petition. UJVN Ltd. vide its letter no. 2925/Dir. (Projects)/UJVNL/UERC dated December 12, 2018 submitted most of the information sought by the Commission. Based on the submission dated December 12, 2018 made by UJVN Ltd., the Commission vide its Order dated December 17, 2018 provisionally admitted the Petition for further processing with the condition that UJVN Ltd. shall furnish any further information/ clarifications as deemed necessary by the Commission during the processing of the Petition and provide such information and clarifications to the satisfaction of the Commission 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.

Further, the Multi Year Tariff (MYT) Petitions filed by UJVN Ltd. also had certain infirmities/deficiencies which were informed to UJVN Ltd. vide Commission's letter no. UERC/6/TF/509/2018-19/1238 dated December 6, 2018 and UJVN Ltd. was directed to rectify the said infirmities in the Petitions necessary for admission of the Petitions and also submit certain additional information/ data for further analysis of the Petitions. UJVN Ltd. vide its letter no. 2026/Dir. (Projects)/UJVNL/UERC dated December 12, 2018 submitted most of the information sought by the Commission necessary for admission of the Petitions. Based on the submissions dated December 12, 2018 made by UJVN Ltd., the Commission vide its Order dated December 17, 2018 provisionally admitted the Petition for further processing with the condition that UJVN Ltd. shall furnish any further information/ clarifications as deemed necessary by the Commission during the processing of the Petition and provide such information and clarifications to the satisfaction of the Commission 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.

Tariff determination being one of 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 Tariff. Accordingly, in the present Order also, in line with past practices, the Commission has tried to elaborate the procedure and principles followed by it in determining the ARR of the licensee. The Annual Fixed Charges of UJVN Ltd. are recoverable from the beneficiaries. It has been the endeavour of the Commission in past also, to issue Tariff Orders for UJVN Ltd. concurrently with the issue of Order on Retail Tariffs for UPCL, so that UPCL is able to honour the payment liability towards generation charges of UJVN Ltd. 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 Third Control Period.
Chapter 4 -	Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2017-18.
Chapter 5 -	Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2018-19 and MYT for the Third Control Period from FY 2019-20 to FY 2021-22.
Chapter 6 -	Commission's Directives.

1 Background and Procedural History

UJVN Ltd. is a company wholly owned by the State Government and is engaged in the business of generation of power in the State including ten large hydro generating stations to which this Order relates. These generating stations are Dhakrani, Dhalipur, Chibro, Khodri, Kulhal, Ramganga, Chilla, Maneri Bhali-I, Maneri Bhali-II and Khatima. Electricity generated by these generating stations is supplied to Uttarakhand Power Corporation Ltd (UPCL), the sole distribution licensee in the State) and Himachal Pradesh State Electricity Board (HPSEB), which, as per an old arrangement/scheme, has share in five of these generating stations viz. Dhakrani (25%), Dhalipur (25%), Chibro (25%), Khodri (25%) and Kulhal (20%).

The Commission vide its Order dated May 6, 2013 approved the Business Plan and Multi Year Tariff for UJVN Ltd. for the First Control Period from FY 2013-14 to FY 2015-16. Further the Commission had carried out the Annual Performance Review for FY 2013-14, FY 2014-15 and FY 2015-16, vide its Orders dated April 10, 2014, April 11, 2015 and, April 5, 2016 respectively.

The Commission vide its Order dated April 5, 2016 approved the Business Plan and Multi Year Tariff for UJVN Ltd. for the Second Control Period from FY 2016-17 to FY 2018-19. Further the Commission had carried out the Annual Performance Review for FY 2016-17 and FY 2017-18 vide its Orders dated March29, 2017 and March 21, 2018 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, 2018, Generating companies are required to submit Business Plan Petition and MYT Petition for determination of Aggregate Revenue Requirement respectively latest by November 30, 2018. UJVN Ltd. in compliance to the Regulations submitted the Business Plan Petition and Station-wise MYT Petition for determination of Annual Fixed Charges for the Third Control Period from FY 2019-20 to FY 2021-22, the True Up of expenses for FY 2017-18 and Annual Performance Review for FY 2018-19 on November 30, 2018.

The Business Plan Petition and MYT Petition were provisionally admitted by the Commission vide two separate Orders dated December 17, 2018. The Commission, through its above Admittance Orders dated December 17, 2018, to provide transparency to the process of tariff determination and give all stakeholders an opportunity to submit their objections/suggestions/comments on the proposals of UJVN Ltd., also directed UJVN Ltd. 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

Sl. No.	Newspaper Name	Date Of Publication
1	Amar Ujala	19.12.2018
2	Dainik Jagran	19.12.2018
3	Hindustan	19.12.2018
4	Times of India	20.12.2018
5	Hindustan Times	20.12.2018

Through above notice, stakeholders were requested to submit their objections/ suggestions/comments latest by 31.01.2019 (copy of the notice is enclosed as **Annexure 1 & 2**). Besides suggestions/comments of the State Advisory Committee, the Commission received 04 objections/suggestions/comments in writing on the Petition filed by UJVN Ltd. The list of stakeholders who have submitted their objections/suggestions/comments in writing is enclosed as **Annexure-3.**

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 Hearing

Sl. No.	Place	Date
1	Srinagar	January 29, 2019
2	Dehradun	January 31, 2019
3	Almora	February 4, 2019
4	Rudrapur	February 5, 2019

The list of participants who attended the Public Hearing is enclosed at **Annexure-4.**

The Commission also sent the copies of the salient features of tariff proposals to Members of the State Advisory Committee and the State Government. The salient features of the tariff proposals submitted by UJVN Ltd. 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 State Advisory Committee on February 11, 2019, wherein, detailed deliberations were held with the Members of the Advisory Committee on the various issues linked with the Petition filed by UJVN Ltd.

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, 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 all the issues raised by the stakeholders related to approval of Business Plan and Multi Year Tariff.

Meanwhile, based on the scrutiny of the Petition submitted by UJVN Ltd., the Commission vide its letter no. UERC/6/TF/508/2018-19/1239, UERC/6/TF/509/2018-19/1238 dated December 6, 2018, letter no. UERC/6/TF/508/2018-19/1302, UERC/6/TF/509/2018-19/1303 dated 18.12.2018, pointed out certain data gaps in the Petitions and sought following additional information/clarifications from the Petitioner:

Business Plan Petition

- Expected COD of the Sela-Urthing project.
- Detailed reasons for increase in cost of Vyasi HEP Project along with the details of beneficiary(ies) of the Project with PPA.
- Details of beneficiaries for 4 LHP's namely Vyasi, Lakhwar, Bowla Nandprayag and Sirkari Bhyol Rupsiabagar project along with the details of PPA executed, if any.
- Basis along with the supporting document for projecting station wise PAF trajectory.
- Preparedness to execute the Capital works proposed and Plan for monitoring the progress of execution of Capex Schemes during MYT Control Period from FY 2016-17 to FY 2018-19 in terms of Orders placed and funds tied-up.
- Copy of MoU/loan agreements between the Petitioner and the Financial Institution.
- Details of any concurrence of GoU for Budgetary allocation if any.
- Justification for manpower addition during the Third Control Period and the details of its Recruitment Plan indicating the designations on which such recruitment is made.
- Detailed computation of generation loss projected by the Petitioner in its Petition for the Third Control Period due to the NGT Order.

- Daily reservoir level and water discharge log data for all the Dams and Barrages feeding its 10 LHPs for FY 2017-18.
- Cost Benefit Analysis including payback period, improvement in generation (MU), etc, for each scheme with projected expense of Rs. 2 Crore or more.
- Plant Wise CUF and net generation of its installed Solar Power Plants for the year FY 2017-18.

MYT Petition

- Quarter wise actual loan repayment, interest paid towards existing loans along with interest refund received for FY 2017-18 for ten hydro generating stations.
- Details of generation linked incentives, performance related incentives paid to its employees for FY 2017-18.
- Receipts of insurance premium paid in FY 2017-18.
- Details of the plants for which RMU has been completed in FY 2017-18 or is expected to be completed in FY 2018-19.
- Details of Additional Capitalisation, A&G and R&M Expenses and vouchers of expenses above Rs. 10 Lakh for its 10 LHPs for FY 2017-18.
- Details of Water Tax Bills along with computation of calculating water tax for FY 2017-18 and calculation of Water Tax for FY 2018-19 and FY 2019-20 in hard as well as in soft copy.
- Details of Unit-wise/Plant-wise details of RMU schedule alongwith expected date of CoD for the Plants undergoing/undergone RMU.
- Justification for additional capitalisation complying to requirements laid out in the Regulations along with funding.
- Asset wise de-capitalization for each station.
- Details of actual number of employees recruited/retired / deceased for FY 2017-18 upto FY 2021-22 specific for 10 LHPs.
- Details of financing of works covered under DRIP Scheme and supporting document

substantiating the infusion of grant / equity and loan.

- Plant wise details of Arrears paid to its Employees on account of VII pay Commission in FY 2017-18 and FY 2018-19 duly reconciled with the Audited Balance Sheet.

So as to have better clarity on the data filed 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 8, 2019, for further deliberations on certain issues related to the Petitions filed by UJVN Ltd. Minutes of above Technical Validation Session were sent to the Petitioner vide Commission's letter no. UERC/6/TF/509/2018-19/1392 dated January 09, 2018, for its response.

The Petitioner submitted the replies to data gaps / information sought by the Commission vide its letter no. M-19/UJVNL/02/D(O)/B-8 dated 18.01.2019 and 78/UJVNL/02/D(O)/B-8 dated 25.01.2019.

Thereafter, the Commission vide its letter No. UERC/6/TF/509/2018-19/1536 dated 28.01.2019 sought additional information pertaining to river discharge data, machine availability and reservoir level for MB-II project.

In compliance to the same, the Petitioner submitted its reply vide its letter No. M-1423/ UJVNL/02/D(O)/B-8 dated 31.01.2019.

The submissions made by UJVN Ltd. 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 Summary of Stakeholders' Objections/Suggestions, Petitioner's Responses and Commission's Views

The Commission has received four suggestions/objections on UJVN Ltd.'s Petitions for True Up of FY 2017-18, Annual Performance Review for FY 2018-19 and Business Plan & determination of Multi Year Tariff for the Third Control Period from FY 2019-20 to FY 2021-22 for 10 Large Generating Stations. List of stakeholders who have submitted their objections/suggestions/ comments in writing is given at **Annexure-3** and the list of Respondents who have participated in the Public Hearings is enclosed at **Annexure-4**. The Commission has further obtained replies from UJVN Ltd. on the objections/suggestions/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 objections/suggestions/comments of the stakeholders while deciding the Annual Fixed Charges and Tariffs for different generating stations of UJVN Ltd.

2.1 Tariff Increase

2.1.1 *Stakeholder's Comments*

Shri Munish Talwar of M/s Asahi Glass India Ltd., Shri Pankaj Gupta of Industries Association of Uttarakhand, Shri Ganga Prasad Agrahari of Indian Drugs & Pharmaceuticals Limited have submitted that UPCL in its petition has proposed a tariff hike of 14% and if Petitions of other transmission and generation bodies like PTCUL, SLDC and UJVN Ltd. are taken into consideration, it seems that total impact of 25% increase in unit rates which is not authentic at all and creates sense of uncertainty for industries to survive. They requested the Commission not to increase the tariff at this juncture as any tariff increase would put the industry into further hardship.

2.1.2 *Petitioner's Reply*

The Petitioner submitted that the Petitions for determination of tariff are filed in accordance to the Regulations notified by the Commission. The tariff of upcoming years is proposed on normative basis and truing-up for the past year is claimed based on the actual audited expenditure and as per the provisions specified in the Regulations. The Petitioner also submitted that it is making continuous efforts to ensure strict commercial discipline, striving to protect the public interest and comply with the directives of the Commission.

The Petitioner further submitted that as input cost towards various heads is increasing, the tariff proposed should be revised by the Commission in upcoming Tariff Order for ensuring optimum and quality generation for its hydro power stations.

2.1.3 *Commission's Views*

The Commission would like to clarify that it has been the practice of the Commission to explain in detail its approach in every Tariff Order. Normal approach so far has been to follow the Regulations and detail the reasons for any deviation in exceptional conditions. The Commission before allowing any tariff increase or increase in expenses under truing-up of previous years carries out due diligence and prudence check of all the expenses incurred by the Petitioner before considering it as part of ARR. The Commission ascertains that no unnecessary cost attributable to inefficiencies of the Petitioner is passed on to the consumers.

The Commission has carried out the detailed analysis of all the actual expenses while carrying out truing up of expenses for FY 2017-18 as elaborated in Chapter 4 of the Order. Further, the Commission has worked out the sharing of gains and losses for FY 2017-18 in accordance with the provisions of the UERC Tariff Regulations, 2015 while carrying out the truing up of expenses and revenues for FY 2017-18. The Commission has carried out detailed analysis of all the expenses while approving the Annual Fixed Charges for the Third Control Period from FY 2019-20 to FY 2021-22 as elaborated in Chapter 5 of the Order.

2.2 Capital Cost and RoE

2.2.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that UJVN Ltd. has again claimed Capital cost of MB-II project. He further submitted that the PTCUL and UJVN Ltd. have again claimed Return on Equity on PDF amount inspite of knowing the fact that this is a settled issue as per the Commission's Orders and is sub-judice at APTEL. He further, submitted that since no stay has been granted by the Hon'ble APTEL on the Commission's Orders, therefore, RoE on PDF amount should not be allowed.

2.2.2 *Petitioner's Reply*

The Petitioner submitted that the Tariff Petition of MB-II HEP has been prepared on the basis of capital expenditure actually incurred. Regarding the equity contributed by GoU out of the Power Development Fund (PDF), the Petitioner submitted that it has considered Return on Equity (RoE) on full equity including the amount invested out of PDF.

The Petitioner further submitted that in view of the appeals filed with the Hon'ble APTEL in the matter of Capital cost and RoE on PDF for MB-II, has considered actual capital cost incurred in Maneri Bhali-II and Return on Equity on full equity including the amount invested out of PDF while computing the Tariff for MB-II HEP.

2.2.3 *Commission's Views*

The Commission had not allowed Return on Equity on funds deployed by the GoU out of PDF fund for reasons recorded in the previous Tariff Orders. Unlike other funds, available with the Government, collected through taxes and duties, PDF is a dedicated fund created in accordance with the provisions of the PDF Act passed by the GoU and the amount is collected directly from the consumers through the electricity bills as the same forms part of the power purchase cost of UPCL which in turn is loaded on to the consumers. PDF Act and Rules made there under, further, clearly indicate that money available in this fund has to be utilized for the purposes of development of generation and transmission assets. Though UJVN Ltd. has filed an Appeal on this issue with Hon'ble APTEL, however, no stay has been granted by Hon'ble APTEL. Therefore, the Commission has adopted the same approach as adopted in previous Tariff Orders while allowing Return on Equity for MB-II project.

2.3 Design Energy/Actual Energy Generated

2.3.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that there has been substantial reduction in gross generation achieved by UJVN Ltd. during FY 2017-18. He submitted that this inefficiency is on the part of the employees of UJVN Ltd., and has requested the Commission to impose some penalty on UJVN Ltd.

2.3.2 *Petitioner's Reply*

The Petitioner submitted that deviations in Design Energy for its hydro power plants is due to reduced discharges available for generation of power on account of the order issued by the Hon'ble National Green Tribunal (NGT) and subsequent order of the Govt. of Uttarakhand (GoU Order no. 708/I/2018-05/24(Writ)/2016 dated 05.06.2018), wherein, directions have been issued for releasing a minimum 15% of average lean season flow of rivers is required to be maintained.

Regarding Maneri Bhali–II HEP, the Petitioner has submitted that in spite of all efforts, the Petitioner is not able to achieve the Design Energy approved by the Commission. Therefore, the Petitioner has requested the Commission to consider the same.

2.3.3 *Commission's Views*

Due to non-availability of reliable information on the design water discharges and DPRs for nine old generating stations, the Commission in its previous Orders had considered the lower of 15 years' average annual generation or the plant-wise Design Energy (as mutually agreed between UPJVNL and UPPCL) as the projected primary energy generation of these generating stations for tariff purposes. For Maneri Bhali-II, the Commission had considered the Design Energy as per DPR of the Project in the previous Tariff Order. The same approach has been continued in this order also. However, for Khatima HEP for which RMU works have been completed, the Commission has considered Design Energy for Third Control Period in accordance with DPR for RMU works and in-line with the approach adopted for FY 2017-18.

2.4 Normative Plant Availability Factor (NAPAF)

2.4.1 *Stakeholder's Comments*

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that in case of MB-II generating station, the Commission has approved NAPAF of 82% whereas the UJVN Ltd. was only able to achieve only 65.17% even after allowing so much of additional capital expenditure for raising the water level to a height of 1108m. He further suggested that the NAPAF for MB-II should not be relaxed.

2.4.2 *Petitioner's Reply*

The Petitioner submitted that it is generally achieving NAPAF approved by the Commission in its most of the Hydro Electric Projects except Ramganga, MB-I & MB-II. In Ramganga Project water discharge is in the control of the UP Irrigation Department and water is released from the dam according to irrigation requirement in the downstream, due to which UJVN Ltd is not able to achieve NAPAF as approved by the Commission. While in case of MB-I & MB-II, it is not able to achieve NAPAF on account of adverse silt conditions due to which the wear and tear of the underwater parts is very severe and time period required for the maintenance of the machines is almost double the time consumed at power stations not affected with silt problem. In view of the above the Petitioner submitted that it is seeking downward revision in NAPAF of Ramganga, MB-I and MB-II HEPs.

The Petitioner further submitted that the NGT Order which has come into force will also impact its ability to achieve NAPAF approved by the Commission for FY 2018-19 and onwards. Therefore, the Petitioner submitted that it is seeking downward revision in NAPAF in view of the aforesaid NGT Order.

2.4.3 *Commission's Views*

The Commission before allowing any relaxation for NAPAF carries out due diligence and prudence check of all the conditions which hampered the NAPAF of the Generating station. The approach adopted by the Commission for approving the NAPAF for the Third Control Period is elaborated in Chapter 3 while approving the Business Plan of the Petitioner.

2.5 Renovation & Modernization

2.5.1 *Stakeholder's Comments*

Shri Vijay Singh Verma submitted that the benefit arising out of Renovation and Modernization of the hydro power plants of UJVN Ltd should be assessed.

2.5.2 *Petitioner's Reply*

The Petitioner submitted that out of 10 operating hydropower stations most of them except Maneri Bhali-II HEP have already completed their useful life and due to their old age frequent breakdown is a normal phenomenon. Renovation and Modernization of the old power plants is urgently required to increase the life of the plants. The Petitioner also submitted that RMU of its Khatima LHPs, Pathri SHP and Mohammadpur SHP have been completed and the efficiency and generation in the Khatima power plant have substantially increased after completion of RMU. The Petitioner has also submitted a summary of comparison of the generation before and after the RMU of Khatima, Pathri & Mohammadpur Power Plants. A comparison of before and after data of Khatima is shown as under:

Table 2.1: Comparison of Khatima HEP before and after RMU

Year	Generation (MU) before RMU
2007-08	154.03
2008-09	155.43
2009-10	140.43
2010-11	155.94
2011-12	164
Avg.	**154.01**
	Generation (MU) after RMU
2016-17	179.82
2017-18	212.78
Avg.	**196.3**
2018-19 up to 12.02.2019	206.48
Avg. increase in generation (MU)	**42.29**
Percentage increase in generation	**27.46**

Note:

	Date of Start of RMU	Date of completion
Unit 1	30.10.2012	29.05.2015
Unit 2	14.06.2015	28.04.2016
Unit 3	15.10.2015	08.09.2016

Similar comparison of Pathri (3 x 6.8 MW), Mohammadpur (3 x 3.1) shows that there is an average increase in generation of 36.08 MU & 13.31 MU respectively and percentage increase is 39.63% & 32.83% respectively.

The Petitioner further submitted that it is continuously making efforts to ensure strict commercial discipline and strive to protect the public interest. All efforts are made to comply with the directives of the Commission.

2.5.3 ***Commission's Views***

Earlier, the Commission, after detailed scrutiny of the RMU Petitions filed for approval for each station, granted approvals of RMU works for respective HEPs. Based on the submission made by the Petitioner during the proceedings of RMU Petition of Khatima HEP, the Commission had assessed the benefits arising out of the RMU and accordingly allowed the RMU of Khatima HEP vide its Order dated 07.05.2015. The above assessed benefits have been duly considered by the Commission, while approving the energy projections and O&M expenses of Khatima HEP, in this Order.

Similarly, the Commission, after detailed examination and scrutiny of the RMU Petitions filed by the Petitioner, had allowed the RMU of Dhakrani, Dhalipur, MB-I and Chilla HEP.

2.6 Other Cost

2.6.1 ***Stakeholder's Comments***

Shri Pankaj Gupta of Industries Association of Uttarakhand submitted that the Petitioner has proposed very high increase in all heads of expenses for all generating stations, which is not commensurate with past and requested the Commission to look closely at all these costs.

2.6.2 ***Petitioner's Reply***

The Petitioner submitted that it prepared its tariff petition on actual/normative basis in accordance to the Regulations notified by the Commission.

2.6.3 ***Commission's Views***

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

2.7 Issues raised during the Meeting of State Advisory Committee

2.7.1 ***Views of State Advisory Committee***

During the State Advisory Committee meeting held on Feb 11, 2019, the Members made the following observations/suggestions/comments:

(1) UJVN Ltd. has proposed very high increase in all heads of expenses for all generating stations and the same needs to be examined carefully as UJVN Ltd. has proposed a huge amount of Capital Expenditure of approx. Rs. 1370 Crore in next 3 to 4 years which in turn will affect the RoE, Depreciation and other components of Tariff.

(2) In case of MB-II generating station, the Commission has approved NAPAF of 82% whereas UJVN Ltd. was able to achieve only 65.17% even after allowing so much of additional capital expenditure for raising the water level to a height of 1108 m. It is also suggested that the NAPAF for MB-II should not be relaxed.

(3) There has been substantial reduction in gross generation achieved by UJVN Ltd. during FY 2017-18. It has been submitted that this inefficiency is on the part of the people of UJVN Ltd., and has requested the Commission to impose some penalty on UJVN Ltd.

(4) UJVN Ltd. has again claimed Return on Equity on PDF amount, though this is settled issue as per Commission's Orders and is subjudice at Hon'ble APTEL. As no stay has been granted by APTEL on Commission's Orders, RoE on PDF amount should not be allowed.

(5) UJVN Ltd., has again claimed Capital cost of MB-II project as Rs. 1923.60 Crore which was already disallowed by the Commission in its earlier Order.

(6) UJVN Ltd. should submit the details of actual impact of the NGT Order and also about the lean discharge period.

2.7.2 *Petitioner's Reply*

On the above observations/suggestions/comments of the State Advisory Committee, UJVN Ltd. has submitted its point-wise replies as follows:

(1) In order to ensure efficiency and safety as well as ensuring continuous operation of the plants the additional capitalization is proposed for next 3-4 years. The proposed capital expenditure of 10 LHPs for 4 years also includes expenditure on RMU and DRIP works. Further, it has also been submitted that Regulation 22 (2) (e) of UERC (Terms and Conditions of determination of Multi Year Tariff) Regulations, 2018 permits additional works/service, which may become necessary for efficient and successful operation of the

plant. Year-wise summary of said expenditure for 10 LHPs is tabulated as below:

Table 2.2: Year-wise summary of said expenditure for 10 LHPs (Rs. In Crore)

Sl. No.	Particulars	2018-19	2019-20	2020-21	2021-22	Total
1	CIVIL	56.14	121.81	123.12	79.34	380.40
2	E&M	131.35	145.34	81.24	44.80	402.73
3	RMU	62.21	157.07	104.05	100.71	424.04
4	DRIP	42.21	79.48	24.80	18.95	165.44
	Total	**291.90**	**503.70**	**333.21**	**243.79**	**1,372.60**

Details of above expenditure have already been submitted before the Commission.

(2) Maneri Bhali-II HEP was commissioned in the financial year 2007-08. After infusion of Additional Capitalisation in MB-II HEP over the past few years, UJVN Ltd. has been able to achieve peaking capacity of 304 MW in the project during the monsoon period as compared to earlier peaking ability of 280 MW approx. The same has resulted in an increase in the energy generation during the monsoon period alongwith increase of about 20% in the Plant Availability Factor (PAF).

High erosion & detrimental effects of high quantum of silt with quartzite contents in the Bhagirathi river water results in high damage to under water parts and equipment carrying the river water. The time required for maintenance activities in MB-II HEP is almost double (80 days minimum) as compared to the other LHPs of UJVN Ltd. situated in Yamuna and Ganga Valleys.

In view of all above constraints, UJVN Ltd. in spite of the best efforts was not able to achieve the NAPAF as determined by the Hon'ble Commission for the FY 2017-18.

(3) UJVN Ltd. has achieved higher gross generation of 4730.51 MU in FY 2017-18 as compared to 4379.00 MU in FY 2016-17 in spite of shut downs of machines on account of RMU activities carried out in MB-I and Dhalipur HEPs during FY 2017-18.

Further, it has also been submitted that the machines of the UJVN Ltd.'s plants are very old and need regular maintenance. UJVN Ltd. is carrying out extensive maintenance activities on the old plants to ensure safety as well as enhanced operating life of the projects. It also needs to be mentioned that as far as possible the maintenance activities are conducted in the lean months (typically November - April) and also during the hours of the day when load is low to ensure minimum loss of generation during the system peak periods.

(4) UJVN Ltd. has considered Return on Equity on full equity including the amount invested out of PDF in view of the Appeal filed with the Hon'ble APTEL in matter of Capital Cost and RoE on PDF for MB-II HEP. The matter is still pending. Also, the investment made by the Government of Uttarakhand is as equity and it is neither a subsidy nor any grant. The said investment is purely a commercial investment made by the Government of Uttarakhand and it has also demanded return on equity from UJVN Ltd.

(5) The Commission in Tariff Order dated 05.04.2016 approved the Capital Cost of MB-II as Rs. 1885.50 Crore against UJVN Ltd.'s claim of Rs. 1923.60 Crore. UJVN Ltd. is claiming the capital cost of MB-II as Rs. 1923.60 in view of the Appeal filed with the Hon'ble APTEL in the matter of Capital Cost and RoE on PDF for MB-II HEP. The matter is still pending.

The difference between the capital cost of Rs. 1923.60 Crore claimed by UJVN Ltd. and capital cost of Rs. 1885.50 Crore approved by the Hon'ble UERC is Rs. 38.10 Crore which is the summation of Rs. 30.16 Crore and Rs. 7.94 Crore against 50% of Interest paid to PFC for the last 6 months of delay in Commissioning and 50% of price variation for the last 6 months of delay in Commissioning respectively.

(6) Detail computation of loss in generation due to impact of the NGT order alongwith Water discharge log data for all the dams and barrages has already been submitted with the Commission. Lean season has been considered the period when availability of water is less than the water required to run all the machines in power stations at full capacity.

2.7.3 *Commission's Views*

The issues raised by the Members of the State Advisory Committee have been taken into consideration while deciding on the Petitioner's claims in the Petitions filed for approval of Business Plan for the Third Control Period from FY 2019-20 to FY 2021-22 and True Up of FY 2017-18, APR for FY 2018-19 and Tariff for Third Control Period from FY 2019-20 to FY 2021-22 as detailed in subsequent Chapters of this Order.

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

3.1 Statutory Requirement

The Commission had notified the UERC Tariff Regulations, 2011 (hereinafter referred as UERC Tariff Regulations, 2011) on 19.12.2011. The above Regulations were applicable for approval of Business Plan and determination of Tariff for the First Control Period from FY 2013-14 to FY 2015-16. The Commission further notified the UERC Tariff Regulations, 2015 on 10.09.2015 which are applicable for approval of Business Plan and determination of Tariff for the Second Control Period from FY 2016-17 to FY 2018-19. Thereafter, the Commission notified the UERC Tariff Regulations, 2018 on 14.09.2018 which are applicable for approval of Business Plan and determination of Tariff for the Third Control Period from FY 2019-20 to FY 2021-22.

3.2 Multi Year Tariff Framework

As regards the Multi Year Tariff Framework, UERC Tariff Regulations, 2018 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 31.03.2019 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;

f) 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 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 Third Control Period

Regulation 8 of the UERC Tariff Regulations, 2018, with regard to the Business Plan 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, 2018, for the Control Period of three (3) financial years from April 1, 2019 to March 31, 2022,

a) The Business Plan for the Generating Company shall be for the entire control period and shall, interalia, contain-

(i) Capital investment plan, which shall include details of the investments planned by the Generating Company for existing stations alongwith its cost-benefit analysis, yearly phasing of capital expenditure alongwith the source of funding, financing plan and corresponding capitalisation schedule. This plan shall be commensurate with R&M schemes and proposed efficiency improvements for various plants of the company;

(ii) The capital investment plan shall show separately, on-going projects that will spill over into the years under review, and new projects (along with justification) that will commence in the years under review but may be completed within or beyond the tariff period;

(iii) The Generating Company shall submit plant-wise details of the capital structure and cost of financing (interest on debt and return on equity), after considering the existing market conditions, terms of the existing loan agreements, risks associated in generation business and creditworthiness;

(iv)Details related to major shut down of machines, if any;

(v) Trajectory of performance parameters;

...

(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."

In accordance with Regulation 8 of the UERC Tariff Regulations, 2018, UJVN Ltd. submitted the Business Plan for the Third Control Period from FY 2019-20 to FY 2021-22. UJVN Ltd. in its Business Plan Petition and subsequent submissions has submitted the trajectory of Performance parameters, Capital Expenditure Plan, Capitalization Plan, Financing Plan and Human Resources Plan for the Third Control Period from FY 2019-20 to FY 2021-22. The Petitioner's submissions and the Commission's analysis on approval of Business Plan for UJVN Ltd. for the Third Control Period from FY 2019-20 to FY 2021-22 are detailed below.

3.4 Capital Investment Plan

3.4.1 *Existing and Upcoming Generation Capacities*

UJVN Ltd. has submitted the existing installed capacity of its large hydro generating stations as mentioned in Table below:

Table 3.1: Existing Installed Capacity as submitted by UJVN Ltd.

Sl. No.	Power Station	Installed Capacity (MW)	Year of Commissioning	Type of Scheme	River	Design Head (m)	Design Discharge (m3/s)
1	Dhakrani	33.75	1965	ROR	Yamuna	19.80	199.20
2	Dhalipur	51.00	1965	ROR	Yamuna	30.48	199.20
3	Chibro	240.00	1975	ROR with Pondage	Tons	110.00	200.00
4	Khodri	120.00	1984	ROR with Pondage	Tons	57.90	200.00
5	Kulhal	30.00	1975	ROR	Yamuna	18.00	198.00
6	Ramganga	198.00	1975	Reservoir	Ramganga	84.40	235.60
7	Chilla	144.00	1980	ROR	Ganga	32.50	565.00
8	Tiloth	90.00	1984	ROR with Pondage	Bhagirathi	147.50	71.40
9	Khatima	41.40	1956	ROR	Sharda	17.98	269.00
10	MB-II	304.00	2008	ROR with Pondage	Bhagirathi	247.60	142.00
11	M. Pur	9.30	1952	ROR	Ganga	5.70	255.00
12	Galogi SHP	3.50	1907	ROR	Bhatta	285.00	1.36
13	Dunao SHP	1.50	2017	ROR	PurviNayar	47.00	4.60
14	Pilangad SHP	2.25	2004	ROR	Pilang Gad	102.00	2.75
15	Urgam SHP	3.00	1997	ROR	Kalp Ganga	196.50	1.86
16	Pathri	20.40	1955	ROR	Ganga	9.75	253.00
	Total	**1,292.10**					

UJVN Ltd. has also submitted the list of upcoming projects with total capacity of 2161.50 MW, details of which are shown in the Table below:

Table 3.2: Upcoming Generating stations as submitted by UJVN Ltd.

Sl. No.	Name of Project	Estimated Potential (MW)	District	River / Tributary	Expected COD
LHP					
1	Vyasi	120.00	Dehradun	Yamuna	December-2019
2	Lakhwar	300.00	Dehradun	Yamuna	March-2021
3	BowlaNandprayag	300.00	Chamoli	Alaknanda	September-2021
4	SirkariBhyolRupsiabagar	120.00	Pithoragarh	Goriganga	September-2021
5	NandPyayagLangasu	100.00	Chamoli	Alaknanda	September-2023
6	Tamaklata	190.00	Chamoli	Dhauliganga	March-2027
7	Kishau	660.00	Dehradun	Tons	March-2027
8	SelaUrthing	230.00	Pithoragarh	Dhauliganga	-
SHP					
9	Kaliganga-I	4.00	Rudrprayag	Mandakini/ Kaliganga	March - 2019
10	Kaliganga-II	4.50	Rudrprayag	Mandakini/ Kaliganga	June - 2019

Table 3.2: Upcoming Generating stations as submitted by UJVN Ltd.

Sl. No.	Name of Project	Estimated Potential (MW)	District	River / Tributary	Expected COD
11	Suringad-II SHP	5.00	Pithoragarh	Suringad a tributary of Goriganga	June - 2019
12	Madhmaheshwar	15.00	Rudrprayag	Mandakini/ Madhmaheshwar	June - 2020
13	Kulagad SHP	1.20	Pithoragarh	Kulagad a tributary of Kali river	June - 2021
14	Guptkashi	1.50	Rudraprayag	Mandakini/ Rawangad	September-2021
15	Purkul	0.80	Dehradun	Kyarkulli	October-2022
16	Tankul SHP	12.00	Pithoragarh	Shymkholagad a tributary of Kali river	2022
17	Kanchauti SHP	4.00	Pithoragarh	Kanchauti a tributary of Dhauliganga	2022
18	Painagad SHP	15.00	Pithoragarh	Painagad a tributary of Goriganga	2023
19	Jimbagad SHP	12.00	Pithoragarh	Jimbagad a tributary of Goriganga	2023
20	Bhilangana II - A	24.00	Tehri	Bhilangana	2023
21	Bhilangana II - B	21.00	Tehri	Bhilangana	2024
22	Bhilangana II - C (Pokhar)	5.00	Tehri	Bhilangana	2024
23	Tapovan	2.00	Chamoli	Dhauliganga/ Soblagad	2024
24	Pilangad II	4.50	Uttarkashi	Bhagirathi	2024
25	Urgam II	10.00	Chamoli	Kalpganga	2025
Total		**2,161.50**			

It is observed that only some of the SHPs and 4 LHPs, namely Vyasi, Lakhwar, Bowla-Nandprayag and Sirkari Bhyol-Rupsiabagar are expected to be commissioned during the Third MYT Control Period, i.e. from FY 2019-20 to FY 2021-22. In this regard, the Commission also directed the Petitioner to submit the details of beneficiaries for the above-mentioned projects along with the details of PPA executed, if any. The Petitioner in response submitted that out of 4 LHPs only Vyasi Project is expected to be commissioned during the Third Control Period and PPA for Vyasi HEP with UPCL is in process. Further, the Petitioner has also revised the expected CoD of the above mentioned LHPs which are as under:

Table 3.3: Revised Expected COD as submitted by UJVN Ltd.

Sl. No.	Name of Project	Estimated Potential (MW)	District	River / Tributary	Expected COD
LHP					
1	Vyasi	120.00	Dehradun	Yamuna	December-2019
2	Lakhwar	300.00	Dehradun	Yamuna	April - 2026
3	BowlaNandprayag	300.00	Chamoli	Alaknanda	December-2025
4	SirkariBhyolRupsiabagar	120.00	Pithoragarh	Goriganga	March -2025
5	NandPyayagLangasu	100.00	Chamoli	Alaknanda	December-2026
6	Tamaklata	190.00	Chamoli	Dhauliganga	March-2027
7	Kishau	660.00	Dehradun	Tons	March-2027
8	SelaUrthing	230.00	Pithoragarh	Dhauliganga	March - 2028

UJVN Ltd. in its Business Plan Petition has submitted that there are various bottlenecks in the development of the hydro projects and, therefore, the State could not harness the full potential of hydro power due to various reasons, notable among them are the inordinate delay in various clearances for the up-coming hydro projects and cancellation of already issued environment clearance to some hydroelectric projects, few projects are under suspension/closure such as 480 MW Pala Maneri and 381 MW Bhairoghati projects of UJVN Ltd., 600 MW Lohari Nag Pala project of NTPC Ltd. by Govt. of India. Because of these factors the development of hydro power projects in the State is not taking place at the desired pace.

UJVN Ltd. further submitted that at present the power availability in the State is wholly dependent on hydro generation projects and allocation of power from the central pool is not sufficient to meet the demand in the State. The power deficit becomes acute during winter season as freezing temperatures causes low river discharges leading to lower generation whereas demand goes up significantly. The Petitioner submitted that due to the above-mentioned reasons, the State Government was also exploring alternatives to hydro power and was looking forward for the developmentof Gas based Power Projects in future for which considerable steps were taken up at State and Central Government level. However, UJVN Ltd. submitted that Government of India expressed its inability to allocate the gas to it in near future. The Petitioner further submitted that the State Government is also exploring the option of Bagasse based co-generation projects in sugar mills for surplus power generation. The details of these projects are provided in the Table below:

Table 3.4: Bagasse based Co-generation projects as submitted by UJVN Ltd.

Sl. No.	Item	Unit	Nadehi Project	Bazpur Project
1	Capacity	MW	16	22
2	Exportable Energy	MU	64.17	90.74
3	Plant Load Factor	%	45.70%	49.66%
4	Cost of the Project			
	Renovation of Sugar Factory	INR Crore	28.31	38.16
	Power Component	INR Crore	82.69	110.91
	IDC	INR Crore	4.06	5.45
	Total Cost	**INR Crore**	**115.05**	**154.52**
5	Equity	INR Crore	34.52	46.35
6	Loan	INR Crore	80.53	108.17
7	Payback Period	Years	8 to 9	8 to 9
8	IRR	%	16.12	17.42
9	Debt Equity Ratio		70:30:00	70:30:00
10	Average DSCR		1.8	1.65
11	Tariff (Cost Plus) *			
12	First Year	Rs. /Unit	4.70	5.10
13	Tenth Year (after repayment of Loan)	Rs. /Unit	3.88	4.17
14	Eighteenth Year	Rs. /Unit	4.45	4.82
15	Expected Period for Implementation after the appointment of EPC Contractor2		16-20 Months	16-20 Months

*Generic Tariff allowed by UERC for 2018-19 for Co-generation Project is Rs. 6.94 per unit which include Rs. 3.52 per unit fixed cost and Rs. 3.42 per unit variable cost. Variable cost is subjected to 5% escalation per year.

UJVN Ltd. has further submitted that to assist the fulfilment of RPO for the State of Uttarakhand as stipulated in RE Regulations, 2013, UJVN Ltd. has taken several initiatives. UJVN Ltd. submitted that it is currently exploring the feasibility of setting up solar PV based power plants in Uttarakhand. The Petitioner has submitted the list of their existing and upcoming solar projects totalling around 133.14 MW along with the estimated investment and current implementation schedule which is as shown in the Table below:

Table 3.5: Existing / Commissioned Solar Generating Stations as submitted by UJVN Ltd.

Sl. No.	Particulars	Date of Commissioning (CoD)	Type	Power Station Involved	Ownership	Capacity	Actual Investment (Rs. in Cr.)
1	100 kW, Roof Top Solar PV Plant, Head Office "Ujjwal", Maharani Bagh, GMS Road Dehradun	24-Dec-2012	Roof Top Solar PV Plant (Standalone)	Head Office "Ujjwal", Maharani Bagh, GMS Road Dehradun	UJVN Ltd.	100 kW	2.73
2	500 kW, Roof Top Solar PV Plant(Grid Connected), Pathri Power HEP, Bahadarabad,	31-Mar-2015	Roof Top Solar PV Plant(Grid Connected)	Pathri Power House	UJVN Ltd.	500 kW	3.51

Table 3.5: Existing / Commissioned Solar Generating Stations as submitted by UJVN Ltd.

Sl. No.	Particulars	Date of Commissioning (CoD)	Type	Power Station Involved	Ownership	Capacity	Actual Investment (Rs. in Cr.)
	Haridwar						
3	1.466 MW, Grid Connected, Solar PV Project at Dhakrani HEP on BOO Basis	31-Mar-2016	Grid Connected	Dhakrani HEP (on BOO Basis)	UJVN Ltd.	1.466 MW	12.00
4	4.398 MW, Grid Connected, Solar PV Project at Khodri HEP on BOO basis	30-Mar-2016	Grid Connected	Khodri HEP (on BOO basis)	UJVN Ltd.	4.398 MW	37.00
5	7.000 MW, Grid Connected Canal Bank SPV, Near Dhakrani HEP on BOOT basis	31-Mar-2017	Grid Connected Canal Bank SPV	Dhakrani HEP (on BOOT basis)	UJVN Ltd.	7.000 MW	49.41
6	7.500 MW, Grid Connected Canal bank SPV, Near Dhalipur HEP on BOOT Basis	31-Mar-2017	Grid Connected Canal bank SPV	Dhalipur HEP (on BOOT Basis)	UJVN Ltd.	7.500 MW	52.62
7	4.500 MW, Grid Connected Canal bank SPV, In between Dakpathar Barrage and Dhakrani HEP on BOOT Basis	31-Mar-2017	Grid Connected Canal bank SPV	Dakpathar Barrage and Dhakrani HEP (on BOOT Basis)	UJVN Ltd.	4.500 MW	26.68
8	1.000 MW, Grid Connected Canal Top SPV, Near Dhalipur HEP	31-Mar-2017	Grid Connected Canal Top SPV	Dhalipur HEP (on BOOT basis)	UJVN Ltd.	1.000 MW	8.90
Total						**26.464 MW**	**192.86**

The Petitioner has further proposed to implement some new solar power plant in future. The details of upcoming projects are provided in the table below:

Table 3.6: Upcoming Solar Generating Stations as submitted by UJVN Ltd.

Sl. No.	Particulars	COD	Type	Power Station Involved	Ownership	Capacity	Actual Investment (Rs. Cr.)	Remarks
1	50 kW Rooftop SPV at Ganga Bhawan Dehradun	2019-20	Roof Top Solar PV Plant	-	UJVN Ltd.	50 kWp	0.3	Based on assessment & software are modelling of each site, it can be concluded that at the HEP's of Sharada (Khatima), MB I (Tiloth) & MB II (Dharasu) have high potential of
2	80 kW Rooftop SPV at Yamuna	2019-20	Roof Top Solar PV Plant	-	UJVN Ltd.	80 kW	0.48	

Table 3.6: Upcoming Solar Generating Stations as submitted by UJVN Ltd.

Sl. No.	Particulars	COD	Type	Power Station Involved	Ownership	Capacity	Actual Investment (Rs. Cr.)	Remarks
	Bhawan, Dehradun							constructing grid connected Solar PV Plants. However, in case of Sharada (Khatima), it is essential that the ongoing legal dispute over the ownership of land is settled in favor of UJVN Ltd. before it can be developed. The HEP's of Chilla has good potential for developing either a storage type or a grid connected solar PV plant and can be further developed. However, the available land at Chilla HEP is highly distributed and fragmented. The Utilization of this land may be a challenge for construction & developed and can substantially reduce availability. Ramganga (Kalagarh) HEP does not have good feasibility in terms of suitable and can support a small storage type system.
3	790 kWp SPV Near Chilla Power House, Near Haridwar	2019-20	Ground Mounted	-	UJVN Ltd.	790 kWp	4.74	
4	5260 kWp SPV Near Khatima Power House, Udham Singh Nagar	2019-20	Ground Mounted	-	UJVN Ltd.	5260 kWp	31.56	
5	205 kWp SPV Near Ram Ganga Power House, Pauri Garhwal	2019-20	Ground Mounted	-	UJVN Ltd.	205kWp	1.23	
6	1370 kWp SPV Near Tiloth Power House, Uttarkashi	2019-20	Ground Mounted	-	UJVN Ltd.	1370 kWp	8.22	
7	1670 kWp SPV Near Dharasu Power House Uttarakhand	2019-20	Ground Mounted	-	UJVN Ltd.	1670 kWp	10.02	
8	600 kWp SPV Near Chibro Power House, Dehradun	2019-20	Ground Mounted	-	UJVN Ltd.	600 kWp	3.60	
9	300 kWp SPV Near Kulhal Power House, Dehradun	2019-20	Ground Mounted	-	UJVN Ltd.	300 kWp	1.80	
10	500 kWp SPV Near Dhalipur Power House, Dehradun	2019-20	Ground Mounted	-		500 kWp	3.00	
11	5MW Grid Connected SPV near Kulhal Power House, Dehradun	2019-20	Canal Bank/Ground Mounted	Kulhal Power House		5 MW	30.0	Land transfer issue

Table 3.6: Upcoming Solar Generating Stations as submitted by UJVN Ltd.

Sl. No.	Particulars	COD	Type	Power Station Involved	Ownership	Capacity	Actual Investment (Rs. Cr.)	Remarks
12	18 MW Canal Top SPV	2019-20	Ground Mounted	At Power Channel between Dakpathar Barrage to Kulhal HEP		18 MW	162.00	1.18 MW Canal Top Solar potential (DPR already prepared) still available on Yamuna Power Channel. Work/Process will be started after scheme available from MNRE, GoI. 2. Presently no any scheme regarding canal Top/Canal Bank from GoI/GoU.
13	72.85 MW Canal Top Grid Connected Solar PV Plant on Chilla Power Channel	2021-22	Canal Top	At Chilla Power Channel between veerbhadrapashulok Barrage to Chilla HEP		72.85 MW	745.33	1. DPR is Prepared 2. Presently no scheme regarding Canal Top/Canal Bank from GoI/GoU
Total						**106.675 MW**	**1,002.28**	

It is observed that UJVN Ltd., is planning to add 106.675 MW of Solar Power Plants. **In this regard, UJVN Ltd., is cautioned to take extreme care with regard to BOO/BOOT Schemes and it should safeguard its commercial interests. Further, UJVN Ltd., is directed to ensure that expenses incurred on account of power evacuation should be borne by the developer, if applicable and any financial implication on account of solar power plants should not be included in its ARR of respective HEPs.**

3.4.2 *Capital Expenditure and Capitalisation Plan for upcoming projects*

The Capital Expenditure Plan and capitalisation schedule for the upcoming large hydro projects for the Third Control Period as submitted by the Petitioner are as given below:

Table 3.7: Capital Expenditure and Capitalisation submitted by UJVN Ltd. (Rs. in Crore)

Name of Project	Installed Capacity	Particulars	Upto 31.03.2018	FY 2019-20	FY 2020-21	FY 2021-22	After 31.03.2022	Total
Vyasi (RoR)	120 MW	Capital Expenditure	405.18	454.30	95.84	-		955.32
		Capitalisation	-	-	1553.58	-		1553.58
Lakhwar(Storage)*	300 MW	Capital Expenditure	5.00	500.00	992.40	1147.06	2644.46	3966.51
		Capitalisation	-	-	-	-	3966.51	3966.51
Bowla Nandprayag (RoR)	300 MW	Capital Expenditure	0.47	100.00	150.00	200.00	2556.77	3007.24
		Capitalisation	-	-	-	-	3007.24	3007.24
Sirkari Bhyol Rupsiabagar (RoR)	120 MW	Capital Expenditure	2.90	25.00	50.00	100.00	1055.89	1233.79
		Capitalisation	-	-	-	-	1233.79	1233.79

Table 3.7: Capital Expenditure and Capitalisation submitted by UJVN Ltd. (Rs. in Crore)

Name of Project	Installed Capacity	Particulars	Upto 31.03.2018	FY 2019-20	FY 2020-21	FY 2021-22	After 31.03.2022	Total
Nandprayag-Langasu (RoR)	100 MW	Capital Expenditure	0.51	0.40	25.00	50.00	1325.28	1401.19
		Capitalisation	-	-	-	-	1401.19	1401.19
#Tamaklata (RoR)	190 MW	Capital Expenditure	0.35	1.95	2.00	50.00	999.15	1053.45
		Capitalisation	-	-	-	-	1053.45	1053.45
Kishau (Storage)	660 MW	Capital Expenditure	2.00	10.00	200.00	300.00	6681.24	7193.24
		Capitalisation	-	-	-	-	7193.24	7193.24
SelaUrthing(RoR)	230 MW	Capital Expenditure	0.44	3.30	1.43	2.50	689.06	696.73
		Capitalisation	-	-	-	-	696.73	696.73

**Revised cost estimate for Rs. 6795 Crore sent to CWC for its approval. (90% cost of water component shall be provided as Grant Assistance by MoWR, GR and RD, GoI and 10% by beneficiary states.)*

#Tamak-lataproject is included in WII list of 24 projects, for which PIL is being reviewed by Hon'ble Supreme Court.

UJVN Ltd. submitted that the financing of all the above projects have been projected by the Petitioner considering debt equity ratio of 70:30.

UJVN Ltd. in its Business Plan has submitted that the estimated cost of the Vyasi HEP at February 2010 price level is Rs. 936.23 Crores including IDC of Rs. 72.51 Crores and Rs. 6.55 Crores of financing Charges. The Petitioner further submitted the revised cost of the project as Rs. 1575.00 Crore after escalating the price till December, 2019. The revised cost of Rs. 1575.00 Crores is under process of approval and the project is expected to get completed by December, 2019. The Commission has gone through the submission of the Petitioner. Further, the Commission has sought the reasons for increase in cost of the Vyasi LHP project.

In response, the Petitioner has submitted that main reasons for cost escalation are additional works as per Revised design / geological / site specific requirements which has been recommended by Technical Evaluation Committee (TEC).

The Petitioner submitted that due to abovementioned reasons time extension was accorded to construction agencies with the approval of competent authority. A high power committee is reviewing the revised cost of Vyasi HEP before its approval from the Board of Directors.

With regard to upcoming Vyasi HEP, the Petitioner may file application in accordance with the provisions of Regulation 10 (1) of the UERC Tariff Regulations, 2018 which specifies as under:

> *"The applicant shall submit under affidavit and in accordance with UERC Conduct of Business Regulations as amended from time to time, the forecast of Aggregate Revenue Requirement and expected revenue from tariff for each year of the Control Period, accompanied by fees applicable, latest by 30th November of the year previous to the start of the Control Period in the formats at Annexure-I*

specified by the Commission.

Provided in case of new project(s), respective unit(s) and element(s), the applicant shall, in advance, make an application on or before 180 days prior to the anticipated date of commercial operation in the manner specified above."

In this regard, the proviso to Regulation 10(1) of the UERC Tariff Regulations, 2018 states that the applicant in case of new projects shall make an application for determination of tariff on or before 180 days prior to the anticipated date of Commercial operation. The Commission, therefore, advises the Petitioner to file a separate Petition for approval of Capital Cost with the revised cost duly approved by the BoD along with the detailed justification for time and cost over-run.

3.4.3 *Capital Expenditure and Capitalisation Plan for existing projects*

The Petitioner in its Business Plan Petition has proposed the capital expenditure and capitalisation to be carried out during the Third Control Period for its 10 LHPs.

The Commission observed that the details submitted by the Petitioner in the Business Plan Petition were not complete and had certain discrepancies. The Commission directed the Petitioner to rectify the same and re-submit the additional capitalisation data. The Petitioner submitted the revised additional capitalisation for all LHPs along with the break-up of additional capitalisation as claimed under Civil, E&M, RMU and DRIP works.

Regulation 21 & 22 of the UERC Tariff Regulations, 2018 specifies as under:

"***21. Capital Cost and capital structure***

(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects of the Generating Company, Transmission Licensee, Distribution Licensee and SLDC.

(2) The Capital Cost of an existing project shall include the following:

a) The capital cost admitted by the Commission prior to 01.04.2019 duly trued up as on 01.04.2019;

…

22. Additional capitalisation and De-capitalisation:

(1) The following capital expenditure within the original scope of work actually incurred or projected to be incurred after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

a) Undischarged liabilities;

b) Works deferred for execution;

c) Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 21(11);

d) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

e) On account of change in law.

Provided that the details included in the original scope of work along with estimates of expenditure, deferred liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure of the following nature actually incurred after the cut-off date may be admitted by the Commission, subject to prudence check:

a) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;

b) Change in law;

c) Works deferred for execution within the original scope of work;

d) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

e) Any additional capital expenditure which has become necessary for efficient operation of generating station or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

f) In case of hydro generating stations, any additional expenditure which has become *necessary onaccount of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company), including due to geological surprises, after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;*

Provided that additional capitalisation on this account would only be allowed if appropriate and adequate insurance cover was available at the time of occurrence of natural calamities referred to above;

...

h) In case of replacement of any asset/equipment (e.g. transformer, circuit breaker, C.T.,P.T. etc.) on account of non-performance/failure of the same, the following approach shall be adopted:

(i) In case of non-performance/failure of assets/equipment, it shall be sent to Store for assessment to check whether it is repairable or not at zero cost;

(ii) In case the asset is repairable, then such asset/equipment shall not be retired from Books of Assets.

Provided, proper tracking should be available for the material like location, asset number etc.

(iii) In case the asset is not repairable, then following process shall be carried out:

- *The asset is retired from the Books of Assets, at depreciated value.*
- *Transfer the failed assets/equipment's from failed to scrap material.*
- *Dismantle it into of scrap inventory like iron, brass etc.*
- *Build up scrap inventory.*

Provided, exercise of dismantling of scrap inventory and build-up of scrap inventory shall be done simultaneously. Dismantled scrap value would be decided on the basis of last scrap sale value. Control Account (Dismantling) will be expense account. Difference of Control account, i.e. either profit or loss shall be booked accordingly.

(iv) In case a new asset/equipment is issued, then it will be issued at weighted average cost

and capitalized respectively, and accordingly, new asset would be created and corresponding entries shall be done in the Books of Accounts.

(3) In case of de-capitalisation of assets of a generating company or the distribution licensee or the transmission licensee or SLDC, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place, duly taking into consideration the year in which it was capitalised."

3.4.4 *Capital Expenditure for the Third Control Period*

The Petitioner has claimed the additional capital expenditure for the Third Control Period under 4 heads namely expenses on account of DRIP, RMU, E&M and Civil expenses. The details of the additional capital expenditure claimed by the Petitioner for the Third Control Period are as under:

Table 3.8: Capital Expenditure Proposed by UJVN Ltd. for FY 2019-20 (Rs. in Crore)

Generating Station	DRIP	RMU	E&M	Civil	Total Additional Capital Expenditure
Dhakrani	2.49	24.00	3.44	11.46	41.39
Dhalipur	3.76	35.90	1.12	13.41	54.19
Chibro	11.51	0.00	24.48	8.69	44.68
Khodri	5.75	0.00	8.68	1.76	16.19
Kulhal	23.92	0.00	15.48	12.62	52.03
Ramganga	0.00	0.00	18.35	0.62	18.97
Chilla	19.61	30.00	26.33	14.09	90.02
MB-I	12.44	67.17	4.79	28.03	112.43
Khatima	0.00	0.00	16.25	11.42	27.68
MB-II	0.00	0.00	26.42	19.70	46.12
Total	**79.48**	**157.07**	**145.34**	**121.80**	**503.70**

Table 3.9: Capital Expenditure proposed by UJVN Ltd. for FY 2020-21 (Rs. in Crore)

Generating Station	DRIP	RMU	E&M	Civil	Total Additional Capital Expenditure
Dhakrani	0.00	20.40	2.17	5.89	28.45
Dhalipur	0.00	35.90	1.68	14.16	51.75
Chibro	2.31	0.00	2.33	11.39	16.03
Khodri	1.15	0.00	1.17	4.74	7.06
Kulhal	7.12	0.00	3.50	2.34	12.96
Ramganga	0.00	0.00	17.56	4.90	22.46
Chilla	10.22	30.00	8.22	11.14	59.58
MB-I	4.00	17.75	0.00	27.73	49.48
Khatima	0.00	0.00	10.07	26.02	36.09
MB-II	0.00	0.00	34.54	14.82	49.35
Total	**24.80**	**104.05**	**81.24**	**123.12**	**333.21**

Table 3.10: Capital Expenditure proposed by UJVN Ltd. for FY 2021-22 (Rs. in Crore)

Generating Station	DRIP	RMU	E&M	Civil	Total Additional Capital Expenditure
Dhakrani	0.00	20.40	0.00	0.46	20.86
Dhalipur	0.00	1.93	0.00	0.70	2.63
Chibro	0.00	0.00	1.00	6.89	7.89
Khodri	0.00	0.00	0.00	2.76	2.76
Kulhal	1.95	0.00	3.50	0.41	5.86
Ramganga	0.00	0.00	4.79	2.72	7.50
Chilla	17.00	60.00	15.00	22.93	114.93
MB-I	0.00	18.38	0.00	19.73	38.11
Khatima	0.00	0.00	16.57	13.21	29.78
MB-II	0.00	0.00	3.94	9.53	13.47
Total	**18.95**	**100.71**	**44.79**	**79.33**	**243.79**

3.4.5 *Commission's Analysis*

The Commission has observed that the Capital Expenditure proposed by UJVN Ltd. for the Third Control Period is significantly higher than the actual achievement during the past period. Further, the Petitioner has not submitted appropriate justification towards incurring such huge capital expenditure. Therefore, the Commission does not find it prudent to allow the capital expenditure as proposed by UJVN Ltd. The Commission for the purpose of approval of Capital Expenditure in the Business Plan for each year of the Third Control Period has considered the expenditure projected by the Petitioner towards the RMU works for the generating stations for which in-principle approval of the Commission has been accorded and average of actual Capital Expenditure for the past 3 years, i.e. from FY 2015-16 to FY 2017-18 for other capital expenditure works. The Commission, with regard to expenditure on account of New Multi-Storied Residential and Office Building in Dehradun, is not deviating from its earlier decision taken in its Tariff Order dated 21.03.2018. The detailed approach adopted by the Commission in approval of year wise Capital Expenditure for the Third Control Period is as discussed below:

3.4.5.1 ***RMU Expense:***

The Commission observed that the Petitioner has projected the Expenses towards RMU of Chilla, MB-I, Dhakrani, Dhalipur and Khatima power stations as shown under:

Table 3.11: Proposed Capital Expenditure on account of RMU submitted by UJVN Ltd. (Rs. Crore)

Sl. No.	Name of Power Station	FY 2019-20	FY 2020-21	FY 2021-22
1	Dhalipur	35.90	35.90	1.93
2	Dhakrani	24.00	20.40	20.40
3	M.B-I	67.17	17.75	18.38
4	Chilla	30.00	30.00	60.00
5	Khatima	-	-	-
	Total	**157.07**	**104.05**	**100.71**

The Commission has already accorded the in-principle approval of RMU works for Chilla, MB-I, Dhakrani, Dhalipur and Khatima power stations. The Commission further during the TVS session held on 08.01.2019, sought revised RMU schedule for the above mentioned generating stations. The Petitioner in its reply dated 18.01.2019 submitted the revised RMU Schedule for each generating station. The Petitioner submitted that the RMU works related to Chilla power may not get completed in the Third Control period. The Petitioner further submitted that the first unit of Chilla HEP after RMU is projected to be commissioned by 30.06.2022 which is beyond the Third Control Period and hence, the Commission has not considered the additional capitalisation towards RMU of Chilla HEP during the Third Control Period. The revised RMU Schedule as submitted by the Petitioner is as under:

Table 3.12: Revised RMU Schedule as submitted by UJVN Ltd.

Generating Station	FY 2019-20	FY 2020-21	FY 2021-22
Dhalipur HEP	01.08.2019 (Unit 1)	31.07.2020 (Unit 2)	31.07.2021 (Unit 3)
Dhakrani HEP	-	-	31.05.2021 (Unit 1)
MB-I HEP	11.12.2019(Unit 1)	11.12.2020 (Unit 2)	11.12.2021 (Unit 3)

The Commission has, accordingly, considered the Capital Expenditure towards RMU works for MB-I, Dhakrani, and Dhalipur HEP during the Third Control Period for which the Commission has already granted in-principle approval subject to detailed scrutiny during Annual Performance Review/True Up. Based on the revised RMU Schedule submitted by the Petitioner, the Commission has allowed the Capital Expenditure for the proposed RMU works considering the average cost of each unit and the unit wise completion of RMU works as under:

Table 3.13: RMU expenses approved by the Commission for Third Control Period (Rs. Crore)

Sl. No.	Name of Power Station	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
1	Dhakrani	0.00	0.00	0.00	21.60*
2	Dhalipur	0.00	27.92	27.92	27.92**
3	Chilla	0.00	0.00	0.00	0.00
4	M.B-I	0.00	48.01	48.01	48.01***
5	Khatima	11.44	0.00	0.00	0.00
	Total	**11.44**	**75.93**	**75.93**	**97.53**

**Total RMU Expense projected for Dhakrani = 64.80, therefore expense for each unit = 64.80/3 = 21.60*
***Total RMU expense projected for Dhalipur = 83.77, therefore expense for each unit = 83.77/3=27.92*
****Total RMU expense projected for MB-I = 144.03, therefore expense for each unit = 144.03/3 = 48.01*

3.4.5.2 ***Average of Actual Capitalisation incurred in Past 3 years (FY 2015-16 to FY 2017-18)***

The Commission observed that the Petitioner has projected certain capital expenses towards DRIP works, Head office and ERP expenses, and other misc. works related to Civil works and E&M works for the Third Control Period. Further, the Commission has compared the actual capitalisation with the capital expenditures approved by the Commission during the past period and the same is shown as under:

Table 3.14: Actual Capitalization during the past periods (Rs. in Crore)

Generating Station	FY 2015-16		FY 2016-17		FY 2017-18	
	Claimed	Approved (Trued Up)	Claimed	Approved (Trued Up)	Claimed	Approved (Trued Up Now)
Dhakrani	0.13	0.13	6.26	3.60	2.92	1.86
Dhalipur	0.11	0.11	3.98	0.70	21.19	4.48
Chibro	3.64	3.64	10.52	4.40	14.21	5.79
Khodri	0.77	0.77	7.61	7.43	12.75	2.82
Kulhal	0.14	0.14	1.75	0.84	8.66	2.54
Ramganga	0.19	0.19	1.12	0.92	27.61	21.78
Chilla	23.49	23.49	4.40	(16.53)	21.83	5.05
MB-I	2.79	2.79	1.67	1.77	1.21	1.21
Khatima	66.56	56.35	89.73	87.31	13.38	9.43
MB-II	126.97	127.24	55.34	55.08	17.65	17.00
Total	**224.80**	**214.86**	**182.37**	**145.51**	**141.71**	**71.97**

On comparison of the Trued Up capitalisation during the last 3 years vis-a-vis the year-wise capital expenditure proposed during the Third Control Period from FY 2019-20 to FY 2021-22, it is observed that the additional capital expenditure projected by the Petitioner is on a higher side. Therefore, the Commission does not find it prudent to allow the capital expenditure proposed by UJVN Ltd. Hence, the Commission for the purpose of approval of capital expenditure in Business Plan has considered the additional capital expenditure as the average capitalisation of past 3 years, i.e. for FY 2015-16, FY 2016-17 and FY 2017-18 (without considering the RMU Expense of Khatima LHP) for 9 LHPs.

With regard to the additional capital expenditure proposed for MB-II Generating station, the Commission has observed that the Petitioner has projected the capital expenditure for major maintenance of machine and other expenditures. Earlier, the Petitioner had filed a separate Petition for approval of investment for completing the balance/deferred works of the MB-II project, to which the Commission vide its Order dated 05.04.2016 granted in-principle approval for the works proposed by the Petitioner and allowed recovery of expenditures in the ARR of the respective years as and when the expenditures would be capitalised subject to prudence check. The Commission further observed that the Petitioner has been incurring the expenses against the deferred/balance capital works even till date. Taking cognizance of the slackness in execution of the balance/deferred works, the Commission in its Order dated 21.03.2018 had also directed the Petitioner to complete all the works covered in the Petition of Balance Capital works of MB-II HEP latest by 31.03.2019. Therefore, the Commission has considered additional capital expenditure for Third Control Period as Trued Up additional capital expenditure for FY 2015-16 to FY 2017-18 excluding the amount approved for Balance Capital works, i.e. Rs. 12.05 Crore for each year of Control Period as detailed in Table below:

Table 3.15: Average Actual Capitalization for past 3 years as considered by the Commission (Rs in Crore)

Generating Station	Average Capitalization for past 3 years
Dhakrani	1.87
Dhalipur	1.76
Chibro	4.61
Khodri	3.67
Kulhal	1.17
Ramganga	7.63
Chilla	4.00
MB-I	1.95
Khatima	0.07
Total of 9 LHPs	**26.74**
MB-II	12.05
Total of 10 LHPs	**38.79**

Therefore, the Capital Expenditure allowed by the Commission for the Third Control Period after considering the RMU expenses approved by the Commission for Third Control Period at Table 3.13 above and average actual additional capitalization for past 3 years as detailed at Table 3.15

above is as under:

Table 3.16: Capitalisation allowed by the Commission for the Third Control Period

Generating Station	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
Dhakrani	41.39	1.87	28.45	1.87	20.86	23.47
Dhalipur	54.19	29.68	51.75	29.68	2.63	29.68
Chibro	44.68	4.61	16.03	4.61	7.89	4.61
Khodri	16.19	3.67	7.06	3.67	2.76	3.67
Kulhal	52.03	1.17	12.96	1.17	5.86	1.17
Ramganga	18.97	7.63	22.46	7.63	7.50	7.63
Chilla	90.02	4.00	59.58	4.00	114.93	4.00
MB-I	112.43	49.96	49.48	49.96	38.11	49.96
Khatima	27.68	0.07	36.09	0.07	29.78	0.07
MB-II	46.12	12.05	49.35	12.05	13.47	12.05
Total	**503.70**	**114.73**	**333.21**	**114.73**	**243.79**	**136.33**

3.5 Financing Plan

3.5.1 *Petitioner's Submissions*

The Petitioner has proposed the financing of proposed capitalisation in the debt equity ratio of 70:30.

3.5.2 *Commission's Analysis*

Regulation 24 of UERC Tariff Regulations, 2018 specifies as under:

"24. Debt-equity ratio

(1) For a project declared under commercial operation on or after 1.4.2019, debt-equity ratio shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as normative loan. Where actual equity employed is less than 30%, the actual equity would be used for determination of Return on Equity in tariff computations.

..."

The Commission sought the financing plan for each of the proposed work along with the supporting documents. In reply, UJVN Ltd. submitted that it proposes to finance the projects in debt: equity ratio of 70:30. The debt shall be raised from institutions like REC, PFC, NABARD, IREDA or other financial institutions.

In accordance with Regulation 24 of the UERC Tariff Regulations, 2018, the Commission has considered the debt equity ratio of 70:30. As the financing details of each scheme like RMU, DRIP and other Misc. Scheme is yet to be submitted by the Petitioner, the Commission shall consider the actual means of finance for each scheme capitalised during the truing up for the respective years of the Third Control Period from FY 2019-20 to FY 2021-22.

The Financing Plan approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 is shown in the Table below:

Table 3.17: Financing Plan approved by the Commission

Particulars	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Capitalisation during the year	503.70	114.73	333.21	114.73	273.49	136.33
Debt (%)	70%	70%	70%	70%	70%	70%
Equity (%)	30%	30%	30%	30%	30%	30%
Debt (Rs. Crore)	352.59	80.31	233.24	80.31	170.65	95.43
Equity (Rs. Crore)	151.11	34.42	99.96	34.42	73.14	40.90

3.6 Human Resources Plan

3.6.1 *Petitioner's Submissions*

The HR plan for the Third Control Period from FY 2019-20 to FY 2021-22 as submitted by the Petitioner in the Business Plan is as per the Table below:

Table 3.18: HR Plan as submitted by UJVN Ltd. for 10 LHPs

Particulars	FY 2018-19			FY 2019-20 (Projected)	FY 2020-21 (Projected)	FY 2021-22 (Projected)
	Apr-Sep (Actual)	Oct-Mar (Estimated)	Apr-Mar (Total)			
Opening no. of employees	2169	2118	2169	2175	2229	2272
Recruitment during the year	11	110	121 (111 for 10 LHPs)	138 (126 for 10 LHPs)	120 (100 for 10 LHPs)	110 (90 for 10 LHPs)
Retirement during the year	62	53	115	84	77	71
Closing no. of employees	2118	2175	2175	2229	2272	2311

3.6.2 *Commission's Analysis*

The Commission directed the Petitioner to justify the manpower addition proposed during the Third Control Period and also to submit the details of its recruitment plan along with scale wise position in which such recruitment would take place. In compliance to the same, the Petitioner submitted its reply vide letter dated 12.12.2018. The Commission also sought information regarding the actual status of recruitment from April, 2018 to December, 2018. The Petitioner in its reply dated 18.01.2019 submitted that no recruitment took place during April, 2018 to December, 2018. Further, for the period from January 2019 to March 2019 the details of Recruitment as submitted by the Petitioner are as under:

Table 3.19: HR Plan during January 2019 to March 2019 as submitted by UJVN Ltd.

Sl. No.	Name of the Post	Posts Advertised	Likely to join	Current Status	Delhi + HQ + 10 LHP	Others and SHP
1	Personnel Officer	02	02	Written test conducted on 15.12.2018. Result awaited	02	-
2	OA-III	01	01	Typing test to be conducted	01	-
3	Steno Gr-III	04	04	Typing test to be conducted	04	-
4	Company Secretary	01	01	The direct recruitment was freezed by GoU on account of implementation of 7th pay Commission. Permission awaited from GoU.	01	-
5	Manager (Environment)	01	01		01	-
6	TG-II (Elect.) and (Mech)	91	91	Written test conducted but due to Writ Petition No. 3320 of 2017 Samvida Karamchari Sangthan v/s State and others was filed in the High Court Uttarakhand, Nainital. The selection process has been stayed by the High Court.	85	06
7	Asstt. Accountant	10	10		06	04
Total		**110**	**110**		**100***	**10**

Further, an action plan as submitted by the Petitioner for recruitment during FY 2019-20 in its submission dated 18.01.2019 is as under:

Table 3.20: HR Plan for FY 2019-20 as submitted by UJVN Ltd.

Sl. No.	Name of the Post	Posts Advertised	Current Status	Delhi + HQ + 10LHP	Others and SHP
1	Steno / Librarian / ASK	26	The proposal for the posts has been kept in front of UKSSSC. The process of advertising the post is also under process. Also the direct recruitment was freezed by GoU on account of 7th pay Commission. Permission awaited from GoU.	24	02
2	Assistant Librarian	01		01	-
3	ASK	11		09	02
4	O.A-III	100	After approval from the Govt. the proposal would be sent to UKSSSC.	92	08
Total		**138**		**126**	**12**

In light of the submissions of UJVN Ltd. dated 18.01.2019, in which UJVN Ltd. submitted that the actual expenditure during April to December, 2018 is Nil, the Commission has considered the addition to employees during FY 2018-19 as Nil. The balance of the proposed recruitment only related to 10 LHPs in FY 2018-19 has been carried forward to FY 2019-20. The proposed recruitment for 10 LHPs in FY 2019-20 has been carried forward to FY 2020-21. The proposed recruitment of 100 personnel in FY 2020-21 and 90 personnel in FY 2021-22 for 10 LHPs has been considered i.e. total 190 personnel in FY 2021-22. The Commission has considered the retirement during each year as submitted by UJVN Ltd. The Petitioner shall put in all efforts for meeting the proposed recruitment of employees during each year of the Third Control Period from FY 2019-20 to FY 2021-22. The Commission shall consider the actual recruitment and retirement status during the truing up for the respective years. Accordingly, the HR plan approved by the Commission is shown in the Table below:

Table 3.21: HR Plan approved by the Commission for 10 LHPs

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Opening no. of employees	2097	1985	2016	2068
Recruitment during the year	0	111	126	190
Retirement during the year	112	80	74	64
Closing no. of employees	1985	2016	2068	2194
Gn	0.00%	0.78%	1.29%	3.05%

3.7 Trajectory of the Performance Parameters

3.7.1 *Design Energy*

Regulation 3(24) of UERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2018 defines Design Energy as follows:

"Design Energy" means the quantum of energy which can be generated in a 90% dependable year with 95% installed capacity of the hydro generating station;"

In accordance with Regulation 50(5) of UERC Tariff Regulations, 2018, the Energy Charge Rate has to be worked out based on the Design Energy of each Station, the relevant extract of the Regulations is reproduced herein,

"50…

(5) Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula, subject to the provisions of sub-Regulation (7):

$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 – AUX) \times (100\text{-}FEHS)\}$

Where,

DE = Annual Design Energy specified for the hydro generating station, in MWh,

FEHS = Free Energy for home State, in percent, as applicable…"

Due to non-availability of reliable information on the design water discharges and DPRs for nine old generating stations, the Commission in its previous Orders had considered the lower of 15 years' average annual generation or the plant-wise Design Energy (as mutually agreed between UPJVNL and UPPCL) as the projected primary energy generation of these generating stations for tariff purposes.

The Design Energy approved by the Commission in its Order dated 05.04.2016 is detailed in table below:

Table 3.22 Design Energy Approved by the Commission in TO dated 05.04.2016

Generating Station	Design Energy (MU)
Dhakrani	156.88
Dhalipur	192.00
Chibro	750.00
Khodri	345.00
Kulhal	153.91
Ramganga	311.00
Chilla	671.29
MB-I	395.00
Khatima	194.05
MB-II	1566.10
Total	**4735.23**

Since the RMU works of Khatima LHP had been completed in FY 2016-17, therefore, the Commission in its Order dated 29.03.2017 had revised the Design Energy of Khatima LHP. The Commission in its Order dated 29.03.2017 stated as under:

"... It is observed that the Petitioner in its Petition dated 06.09.2013 for Investment Approval had submitted that after execution of the RMU works as per the revised DPR the LHP is expected to generate 41.4 MW with average generation of 235.59 MU in 90% dependable year. The Commission taking cognisance of the submissions made by the Petitioner and the revised DPR gave in-principle approval of RMU works in its Order dated 07.05.2015. The Petitioner has, however, now submitted that the station shall only be able to generate 207 MU as compared to earlier projected generation of 235.59 MU. The Commission, in this regard, is of the view that the projected generation of 235.59 MU submitted by the Petitioner was based on revised DPR while the current projection of the Petitioner

does not have any basis or grounds for refuting the projection made in its revised DPR. Further, the Petitioner cannot have separate set of performance parameters for getting investment approval and for claiming tariff which only results in unjust financial burden on to the consumers. The Commission, therefore, finds no merit in considering the design energy projected by the Petitioner.

Hence, the Commission in line with the order dated 07.05.2015 for approval of "Capital Investment for Renovation & Modernization" of Khatima (3x13.8 MW) HEP has revised the design energy of Khatima LHP to 235.59 MU."

Based on the above, the Commission had considered the Design Energy of Khatima LHP as 235.59 MU for FY 2017-18 and FY 2018-19.

3.7.1.1 *Revision of Design on account of order of Hon'ble NGT*

The Petitioner in its Petition has submitted that Hon'ble National Green Tribunal (NGT) has issued an Order on 09.08.2017 regarding release of minimum discharge in to the rivers. In compliance of the Order of Hon'ble NGT, the Government of Uttarakhand (GoU) has issued order no. 708 dated 05.06.2018 to UJVN Ltd. for maintaining the minimum 15% flow of the average lean season flow in the rivers from the Dams/Barrages situated in the State of Uttarakhand. In the meantime, the Gazette notification has also been issued by Ministry of Water Resources, river Development and Ganga Rejuvenation (National Mission for Clean Ganga), Govt. of India on 09.10.2018 in this regard. The Central Government vide Notification dated 09.10.2018 specifies the minimum environmental flows to be maintained at locations downstream of structures or projects meant for diversion of river flows for purposes like irrigation, hydro power, domestic and industrial and other requirements.

For Upper Ganga River Basin Stretch starting from originating glaciers and through respective confluences finally meeting at Devprayag up to Haridwar, the season-wise percentage specified for monthly average flow are as follows:

Table 3.23: Monthly average flow as per GoI Notification dated 09.10.2018

Sl. No.	Season	Months	(%) Percentage of monthly Average flow observed during each of preceding 10-daily period
1	Dry	November to March	20
2	Lean	October, April and May	25
3	High Flow Season	June to September	30*

** monthly flow of high flow season*

In view of aforesaid orders/notifications, the Petitioner submitted that in order to maintain the minimum of 15% of the average lean season flow, the available water discharge shall be reduced in the tunnels/power channels of the power stations of UJVN Ltd. Consequent upon the reduction in the discharge available for power generation, the quantum of power generation as well as the declared capacity of the power plants shall also get reduced.

The Petitioner, therefore, requested the Commission to consider the impact of the NGT Order for FY 2018-19 to FY 2021-22. The total impact of lesser discharge as estimated by the Petitioner is 200 MUs. The Petitioner, therefore, requested to consider total Design Energy of 10 LHPs of UJVN Ltd. as 4576.77 MUs in place of 4776.77 MUs.

Commission's Analysis

The Commission in this regard sought the detailed computation of loss on account of NGT Order submitted in the Petition as well as its Energy Projections for the Third Control Period. Further, the Commission also sought details of daily reservoir levels and water Discharge log data for all the dams and Barrages feeding its 10 LHPs for last 15 years from FY 2003-04 to FY 2017-18.

The Petitioner vide its reply dated 07.01.2019 submitted the detailed computation of loss in generation due to impact of the NGT Order.

The loss in generation due to impact of the NGT Order as computed by the Petitioner is as follows:

a. NGT vide its Order dated 09.08.2017 directed as follows:

   "We direct that all the rivers in the country shall maintain minimum 15% to 20 % of the average lean season flow of the river."

   Further, it was directed by Secretary (GoU) vide letter no. 708/I/2018-05/24(writ)/2018 dated 05/06/18 to maintain minimum 15% of the average lean season flow of the river.

   In accordance to the above directions, lean season has been considered as the period when availability of water is less than the water required to run all the machines in power stations at full capacity.

b. Design Energy has been considered same as allowed by the Commission in its Tariff Order 16.12.2004.

c. To calculate loss in generation in order to maintain 15% of average lean season flow of the river, 15 % of average generation of last 10 year (from FY 2008-09 to FY 2017-18) of lean season has been considered.

d. The Petitioner has further revised the impact due to lesser discharge of water as 354 MU.

Design energy is the energy that can be generated in a 90% dependable year with 95% installed capacity. Hence, both water discharge and machine availability can impact the design energy. The Petitioner's approach to calculate loss in generation by reducing 15% average generation during lean season is flawed to the extent that it ignores actual water discharge in the lean season. It also ignores actual machine availability.

Further, the Commission has gone through the submission of the Petitioner and observed that there is no particular period which is defined as lean Discharge Period in the above NGT Order. In absence of the complete discharge data of rivers as well as the data of mandatory discharges being released in the rivers prior to the NGT Order and discharges to be released post NGT Order, the Commission, at this point of time has not considered the impact of the NGT Order. However, the Commission is giving opportunity to the Petitioner to submit at the time of truing up of FY 2018-19 the status of actual impact/ loss of generation due to the NGT Order based on the actual flow from the Dams/Barrages during the lean seasons vis-a-vis such flow prior to the NGT Order. Thereafter, appropriate view will be taken by the Commission in this regard.

Based on the above, the Commission has, accordingly, approved the Design Energy for the Third Control Period as shown in the Table below:

Table 3.24: Design Energy approved by the Commission for Third Control Period (MU)

Generating Station	Original Design Energy	Design Energy Approved in T.O. dated 29.03.2017	Design Energy Proposed by UJVN Ltd. without the NGT impact	Desgin Energy Proposed by UJVN Ltd. With the NGT impact	Desgin Energy Approved for the Third Control Period
Dhakrani	169.00	156.88	156.88	147.00	156.88
Dhalipur	192.00	192.00	192.00	177.00	192.00
Chibro	750.00	750.00	750.00	693.00	750.00
Khodri	345.00	345.00	345.00	318.00	345.00
Kulhal	164.00	153.91	153.91	143.00	153.91
Ramganga	385.00	311.00	311.00	273.00	311.00
Chilla	725.00	671.29	671.29	619.00	671.29
MB-I	546.00	395.00	395.00	361.00	395.00
Khatima	208.00	235.59	194.05	185.00	235.59
MB-II	1566.10	1566.10	1566.10	1268.83*	1566.10
Total	**5050.10**	**4776.77**	**4735.23**	**4184.83**	**4776.77**

** As per revised submission dated 31.01.2019*

Since RMU works are under progress in various LHPs of UJVN Ltd., therefore, the Commission shall take a fresh view on Design Energy once the said RMU works will be completed. Further, any energy generated in excess of design energy approved in this Tariff Order upto the Original Design Energy shall not be considered as secondary energy meaning thereby that till the Original Design Energy, the Petitioner will recover the energy charge upto 50% of the AFC approved for the year.

3.7.2 *Auxiliary Consumption*

UJVN Ltd. in its Petition has projected the auxiliary energy consumption in variance to the norms stipulated in the UERC Tariff Regulations, 2018. UJVN Ltd. further submitted that the auxiliary consumption and transformation losses in the Third Control period are expected to be slightly higher than the normative level and it is trying to mitigate the higher auxiliary consumption and is taking appropriate steps to bring them to the normative level.

The Commission is of the view that the norms for auxiliary consumption (including transformation losses) have been fixed as part of UERC Tariff Regulations, 2018. Out of the 10 large generating stations, UJVN Ltd., in its Petition has proposed the higher auxiliary consumption for 6 stations. Further, UJVN Ltd., in its Petition has also not given adequate justification for the same. If the norms fixed in the Regulations are to be revised frequently, then there will be no sanctity of the Regulations.

The Commission has, therefore, for the purpose of approval of Business Plan has approved Auxiliary Consumption (including Transformation Losses) as per the norms stipulated in the UERC Tariff Regulations, 2018. The Auxiliary Consumption as submitted by the Petitioner and as approved for the Third Control Period is as shown in the Table below:

Table 3.25: Auxiliary Consumption including Transformation Losses for Third Control Period

Generating Station	As proposed by UJVN Ltd. (%)	Approved for the Third Control Period (%)
Dhakrani	1.86	0.70
Dhalipur	0.87	0.70
Chibro	1.20	1.20
Khodri	1.00	1.00
Kulhal	2.82	0.70
Ramganga	0.43	0.70
Chilla	1.24	1.00
MB-I	1.03	0.70
Khatima	1.17	1.00
MB-II	0.77	1.00

3.7.3 *Saleable Primary Energy & Secondary Energy*

In line with the past practice, in this MYT Order also, the Saleable Primary Energy has been derived by deducting the normative auxiliary consumption from the above considered primary energy in accordance with UERC Tariff Regulations, 2018 respectively for concerned years. As regard the benefit of excess generation over and above the Original Design Energy, i.e. the secondary energy, the rate of secondary energy shall be based on the Original Design Energy and not on the basis of primary energy considered by the Commission for recovery of AFC. Further, in case such energy charge rate is higher than 90 paise/kWh, the rate of secondary energy shall be considered as 90 paise/kWh in accordance with Regulation 50(7) of UERC Tariff Regulations, 2018. The relevant extract of the Regulation is being reproduced below:

"50...

(7) In case the Energy Charge Rate (ECR) for a hydro generating station, as computed above, exceeds ninety paise per kWh, and the actual saleable energy in a year exceeds { DE x (100 – AUX) x (100-FEHS)/ 10000 } MWh, the Energy Charge for the energy in excess of the above shall be billed at ninety paise per kWh only:"

From above, it is amply clear that the Petitioner can get the benefits of Secondary Energy only in case it is able to generate energy more than the Original Design Energy. To provide necessary clarity on the issue the Commission would like to reproduce the relevant extracts from its Tariff Order dated 21.10.2009:

"Further, since the Petitioner is allowed to recover its entire AFC at a projected generation, which is lower than the Original Design Energy in some of these plants, the Petitioner recovers additional Primary Energy Charges in excess of the approved AFC when the actual generation exceeds this projected level. This situation continues till the generation reaches the Original Design Energy level. As per Regulations, the Primary Energy is reckoned upto the level of Original Design and, accordingly, the charges recovered would be considered as Primary Energy Charges upto the Original Design Energy. However, since the Primary Energy Charges actually recovered at the approved Primary Energy Rates may be higher than approved AFC in the aforesaid circumstances, the excess AFC recovered through Primary Energy Charges needs to be adjusted/refunded to the concerned beneficiary."

Accordingly, the Design Energy and Saleable Primary Energy for the Third Control Period from FY 2019-20 to FY 2021-22 as approved by the Commission is given in the Table below:

Table 3.26: Original Design Energy, Design Energy and Saleable Primary Energy for Third Control Period from FY 2019-20 to FY 2021-22 as approved by the Commission

Generating Station	Original Design Energy	Design Energy	Auxiliary consumption (including Transformation Loss)		Saleable Primary energy
	MU	MU	%	MU	MU
Dhakrani	169.00	156.88	0.70%	1.10	155.78
Dhalipur	192.00	192.00	0.70%	1.34	190.66
Chibro	750.00	750.00	1.20%	9.00	741.00
Khodri	345.00	345.00	1.00%	3.45	341.55
Kulhal	164.00	153.91	0.70%	1.08	152.83
Ramganga	385.00	311.00	0.70%	2.18	308.82
Chilla	725.00	671.29	1.00%	6.71	664.58
MB-I	546.00	395.00	0.70%	2.77	392.24
Khatima	208.00	235.59	1.00%	2.36	233.23
MB-II	1566.10	1566.10	1.00%	15.66	1550.44
Total	**5050.10**	**4776.77**		**45.65**	**4731.13**

3.7.4 *Outage Plan during the Third Control Period*

UJVN Ltd. in its Petition has submitted the station-wise outage plan on account of Annual Maintenance (AM), Capital Maintenance (CM), Renovation Modernization & Up-gradation (RMU), Dam Rehabilitation and Improvement Project (DRIP) and Reverse Engineering & Capital Maintenance (RE & CM) for the Third Control Period as shown in the Table below:

Table 3.27: Outage Plan for the Third Control Period for FY 2019-20 submitted by UJVN Ltd.

Sl. No.	Name of Power Station	Unit	Date of Start	Date of Completion	No. of Days	Remarks
1	Chibro (4x60)	Unit 1	15-11-2019	05-12-2019	20	AM
		Unit 2	11-12-2019	31-12-2019	20	AM
		Unit 3	08-04-2019	28-04-2019	20	AM
			08-01-2020	28-01-2020	20	AM
		Unit 4	05-02-2020	25-02-2020	20	AM
2	Khodri (4x30)	Unit 1	15-11-2019	05-12-2019	20	AM
		Unit 2	11-12-2019	31-12-2019	20	AM
		Unit 3	01-04-2019	02-05-2019	31	AM
		Unit 4	01-04-2019	02-04-2019	1	CM
3	Dhakrani (3 x 11.25)	Unit 1	01-04-2019	29-05-2019	58	CM
			30-01-2020	04-03-2020	34	AM
		Unit 2	23-12-2019	26-01-2020	34	AM
		Unit 3	15-11-2019	19-12-2019	34	AM
4	Dhalipur (3x17)	Unit 1	09-12-2019	31-03-2020	113	RMU
		Unit 2	01-04-2019	08-07-2019	98	RMU
		Unit 3	01-01-2020	14-02-2020	44	AM
5	Kulhal (3x10)	Unit 1	01-04-2019	30-04-2019	29	AM
		Unit 2	15-11-2019	14-03-2020	120	CM
		Unit 3	-	-	-	-
6	Tiloth (3x30)	Unit 1	01-04-2019	12-12-2019	255	RMU
		Unit 2	15-07-2019	04-08-2019	20	AM
			15-01-2020	14-02-2020	30	AM
		Unit 3	15-07-2019	14-08-2019	30	AM
			13-12-2019	31-03-2020	109	RMU
7	MB II (4x76)	Unit 1	25-10-2019	29-12-2019	65	AM
		Unit 2	15-11-2019	18-01-2020	64	AM
		Unit 3	05-01-2020	10-03-2020	65	AM
		Unit 4	25-01-2020	30-03-2020	65	AM
8	Chilla (4x36)	Unit 1	01-12-2019	31-03-2020	121	RMU
		Unit 2	01-04-2019	12-05-2019	41	AM
			01-12-2019	04-01-2020	34	AM
		Unit 3	07-02-2020	13-03-2020	35	AM
		Unit 4	01-04-2019	30-11-2019	243	Restoration Works
9	Ramganga (3x66)	Unit 1	15-06-2019	09-02-2020	239	CM
		Unit 2	20-07-2019	23-08-2019	34	AM
		Unit 3	01-04-2019	28-09-2019	180	CM & Other Works
10	Khatima (3x 13.8)	Unit 1	22-02-2020	28-03-2020	35	AM
		Unit 2	10-01-2020	13-02-2020	34	AM
		Unit 3	22-11-2019	31-12-2019	39	AM

Table 3.28: Outage Plan for the Third Control Period for FY 2020-21 submitted by UJVN Ltd.

Sl. No.	Name of Power Station	Unit	Date of Start	Date of Completion	No. of Days	Remarks
1	Chibro (4x60)	Unit 1	15-11-2020	05-12-2020	20	AM
		Unit 2	11-12-2020	31-12-2021	20	AM
		Unit 3	15-01-2021	04-02-2021	20	AM
		Unit 4	15-01-2021	07-02-2021	23	AM
2	Khodri (4x30)	Unit 1	15-11-2020	05-12-2020	20	AM
		Unit 2	15-12-2020	04-01-2021	20	AM
		Unit 3	15-01-2021	04-02-2021	20	AM
		Unit 4	15-01-2021	07-02-2021	23	AM
3	Dhakrani (3 x 11.25)	Unit 1	01-11-2020	31-03-2021	150	RMU
		Unit 2	23-12-2020	26-01-2021	34	AM
		Unit 3	30-1-2021	05-03-2021	34	AM
4	Dhalipur (3x17)	Unit 1	01-04-2020	08-07-2020	98	RMU
		Unit 2	01-01-2021	14-02-2021	44	AM
		Unit 3	09-12-2020	31-03-2021	112	RMU
5	Kulhal (3x10)	Unit 1	15-11-2020	30-12-2020	45	AM
		Unit 2	01-01-2021	14-03-2021	44	AM
		Unit 3	15-02-2021	31-03-2021	44	AM
6	Tiloth (3x30)	Unit 1	15-07-2020	14-08-2020	30	AM
			15-01-2021	31-01-2021	16	AM
		Unit 2	15-07-2020	14-08-2020	30	AM
			13-12-2020	31-03-2021	108	RMU
		Unit 3	01-04-2020	12-12-2020	255	RMU
7	MB II (4x76)	Unit 1	25-10-2020	29-12-2020	65	AM
		Unit 2	15-11-2020	18-01-2021	64	AM
		Unit 3	05-01-2021	10-03-2021	64	AM
		Unit 4	25-01-2021	30-03-2021	64	AM
8	Chilla (4x36)	Unit 1	01-04-2020	30-11-2020	243	RMU
		Unit 2	01-12-2020	31-03-2021	120	RMU
		Unit 3	07-01-2021	13-02-2021	37	AM
		Unit 4	01-12-2020	04-01-2021	34	AM
9	Ramganga (3x66)	Unit 1	-	-	-	-
		Unit 2	15-06-2020	09-02-2021	239	CM
		Unit 3	15-06-2020	19-07-2020	34	AM
10	Khatima (3x 13.8)	Unit 1	22-02-2021	18-03-2021	24	AM
		Unit 2	10-01-2021	13-02-2021	34	AM
		Unit 3	22-11-2020	31-12-2020	39	AM

Table 3.29: Outage Plan for the Third Control Period for FY 2021-22 submitted by UJVN Ltd.

Sl. No.	Name of Power Station	Unit	Date of Start	Date of Completion	No. of Days	Remarks
1	Chibro (4x60)	Unit 1	15-11-2021	05-12-2021	20	AM
		Unit 2	15-12-2020	04-01-2022	20	AM
		Unit 3	15-01-2022	04-02-2022	20	AM
		Unit 4	15-02-2022	07-03-2022	20	AM
2	Khodri (4x30)	Unit 1	15-11-2021	05-12-2021	20	AM
		Unit 2	15-12-2021	04-01-2022	20	AM
		Unit 3	15-01-2022	04-02-2022	20	AM
		Unit 4	15-02-2022	07-03-2022	20	AM
3	Dhakrani (3 x 11.25)	Unit 1	01-04-2021	31-05-2021	60	RMU
		Unit 2	01-11-2021	31-03-2022	150	RMU
		Unit 3	30-1-2022	05-03-2022	34	AM
4	Dhalipur (3x17)	Unit 1	01-01-2022	14-02-2022	44	AM
		Unit 2	15-02-2022	21-03-2022	34	AM
		Unit 3	01-04-2021	08-07-2021	98	RMU
5	Kulhal (3x10)	Unit 1	15-11-2021	30-12-2021	45	AM
		Unit 2	01-01-2022	14-02-2022	44	AM
		Unit 3	15-02-2022	31-03-2022	44	AM
6	Tiloth (3x30)	Unit 1	15-07-2021	14-08-2021	30	AM
			15-01-2022	15-02-2022	31	AM
		Unit 2	01-04-2021	12-12-2021	255	RMU
		Unit 3	15-07-2021	14-08-2021	30	AM
			16-02-2022	03-03-2022	15	AM
7	MB II (4x76)	Unit 1	25-10-2021	29-12-2021	65	AM
		Unit 2	15-11-2021	18-01-2022	64	AM
		Unit 3	05-01-2022	10-03-2022	64	AM
		Unit 4	25-01-2022	30-03-2022	64	AM
8	Chilla (4x36)	Unit 1	-	-	-	-
		Unit 2	01-04-2021	30-11-2021	243	RMU
		Unit 3	01-12-2021	31-03-2022	120	RMU
		Unit 4	01-12-2021	31-03-2022	120	RMU
9	Ramganga (3x66)	Unit 1	20-07-2021	23-08-2021	34	AM
		Unit 2	-	-	-	-
		Unit 3	15-06-2021	19-07-2021	34	AM
10	Khatima (3x 13.8)	Unit 1	22-02-2022	28-03-2022	34	AM
		Unit 2	10-01-2022	13-02-2022	34	AM
		Unit 3	22-11-2021	31-12-2020	21	AM

Further, the Petitioner vide its submission dated 18.01.2019 has revised the RMU Schedule for the generating stations as discussed at 3.4.5.1 above. The Petitioner in its aforesaid submission has submitted that the RMU works related to Chilla LHP may not get completed in the Third Control period and its first unit is expected to be commissioned by 30.06.2022 which is beyond the Third Control Period.

The Commission for the purpose of approval of the Business Plan has noted the submissions of UJVN Ltd. Further, the Commission expects that UJVN Ltd. shall adhere to the Outage Plan as submitted with minimum outages to achieve maximum generation during the Third Control Period.

3.7.5 *Normative Annual Plant Availability Factor (NAPAF)*

UJVN Ltd. in its Business Plan has projected NAPAF for the Third Control Period. The Commission directed the Petitioner to submit the basis along with supporting computation for projecting the PAF trajectory for the Third Control Period. The Petitioner in response re-submitted its NAPAF projections vide its reply dated 12.12.2018 for the Third Control Period as shown in the Table below:

Table 3.30: NAPAF(%) Projected by UJVN Ltd.

Station	NAPAF (%)		
	FY 2019-20	FY 2020-21	FY 2021-22
Dhakrani	60	50	40
Dhalipur	40	40	50
Chibro	63	63	63
Chilla	56	56	44
Khatima	65	65	65
Khodri	55	55	55
Kulhal	65	65	65
Ramganga	15	15	15
MB-I	52	53	57
MB-II	66	66	66

The Petitioner in the aforesaid reply also submitted the reasons for considering the proposed NAPAF as under:

- **Chibro HEP**: The Chibro Power Station is very old HEP & requires more maintenance, hence, has to be shut down for longer periods to carry out maintenance.
- **Khodri HEP**: The Khodri Hydro Power Station is likely to achieve the normative plant availability factor determined by the Commission for FY 2017-18 & 2018-19 as well. The Khodri Hydro Power Station is very old HEP & requires more maintenance, hence, has to be shut down for longer periods to carry out maintenance.
- **Chilla HEP**: **Incident of flooding of Chilla Power Station on 13.07.2018**: Chilla HEP came under forced outage after the incident of flooding on 13.07.2018. Unit no. 4 of Chilla had tripped on Generator earth fault & Mechanical fault with heavy sound and water came out

from top cover at 14.50 hrs on 13.07.18. Level inside power house became 296.60 m with tail race level as 296.80 m. Unit No. 1, 2, 3 & 4 of Chilla were running on 36 MW, 34 MW, 35 MW, 31 MW respectively with a total load of 136 MW just before the incident.

The Petitioner submitted that due to above incident which was not controllable, Chilla Power station would not be able to achieve generation and NAPAF targets during FY 2018-19. Therefore, the Petitioner requested the Commission to consider proposed relaxation in approved NAPAF.

As restoration works will take approximately 12 months, therefore, only 3 machines out of 4 machines shall be available for generation during FY 2019-20 also. As only 3 machines shall be available during FY 2019-20, therefore, the NAPAF for FY 2019-20 shall be = 74*3/4=55.5 ≈56 (only 3 machines shall be available).

Also for FY 2020-21, as the plant is under RMU, only 3 machines out of four shall be available and hence, NAPAF for FY 2020-21 shall be = 74*3/4=55.5≈56 (only 3 machine shall be available)

For FY 2021-22, two machines out of four is under RMU for more than 10 months and hence, the NAPAF for FY 2021-22= 74*2/4+74*2/4*2/12=43.17 ≈44 (two M/c is under RMU for more than 10 months)

- **Maneri Bhali-I**: High erosion & detrimental effects of high quantum of silt with quartzite contents in the Bhagirathi river water results in high damages to under water parts and equipment carrying the river water such as pipelines, valves etc. In addition to above, because of on-going construction work (viz. All-weather Road Project) in the upper zone of the catchment area of Bhagirathi river, quantum of silt and quartz particle has increased in Bhagirathi river. Therefore, frequent shutdowns along with planned maintenance during monsoon period (approximate period of 1 month) & lean discharge period (80 days) are required to be taken up for proper upkeep of the unit and safe operation of power station.

Another most critical aspect that impacts the operation & maintenance of the power station is the limitation in the scheme. There is only a single pressure shaft emanating in the downstream of the surge tank of Tiloth powerhouse (MB-I HEP) which gets trifurcated into 3 Nos. penstocks each feeding directly to the individual units. Problem arises when leakage starts due to detrimental effects of the silt in any of the equipment related to MIV or beyond such as valves, pipelines etc. In order to attend the same, the surge tank gate is required to be lowered and penstocks are required to be dewatered. Since there is a common pressure shaft from the surge tank hence, lowering of the surge tank gate results in complete closure of the power house attributing to high quantum of loss in generation as well as availability.

Apart from the above, RMU of MB-I HEP is to be carried out during the Control Period, therefore, the Petitioner requested the Commission to allow relaxation in NAPAF for FY 2018-19 & for the Third Control Period of 2019-20 to 2021-22.

- **Ramganga HEP**: Water release from Ramganga Dam is purely irrigation based and the control of which rests with Uttar Pradesh Irrigation Department. Based on water released from the dam during 2016-17 and 2017-18, the Petitioner was unable to achieve its PAFM. Similarly, during 2018-19 PAF of 15.29% is expected to be achieved with the best efforts of UJVN Ltd.
- **Maneri Bhali-II**: NAPAF for Maneri Bhali-II HEP has been approved by the Commission as 82% for FY 2017-18 and FY 2018-19. However, the Petitioner is unable to achieve the approved NAPAF due to the following reasons:
  a. Due to excessive silt in River Bhagirathi under water parts of the machines eroded badly which resulted in extension of maintenance period of each machine. The silt content of 10000 ppm or more is experienced during monsoon season whereas the maximum limit is 3000 ppm upto which plant can be operated.
  b. Due to excessive PPM in River Bhagirathi water during monsoon period, Machines shaft seal and other parts were damaged several times and resulted in 355 Hrs of forced outage of machines in the month of July, August and September 2017.

In addition to the above, because of on-going construction work (viz. All-weather Road Project) in the upper zone of the catchment area of Bhagirathi river quantum of silt and quartz particles has increased in Bhagirathi river.

This power station was commissioned in the financial year 2007-08. Due to operation of machine for more than past 10 years under adverse operating conditions in silt laden water, availability of machines has been adversely affected as maintenance hours has substantially increased.

Further, the Petitioner vide its submission dated 31.01.2019 submitted that the Design head of MB-II station is 247 Mts which is highest among all LHPs of UJVN Ltd. The Machines at MB-II runs at 333 RPM which is highest among the 10 LHPs of UJVN Ltd. Due to high head and high RPM the damage caused by the silt is severe.

Furthermore , the Petitioner submitted that the Commission has considered 60 days for normal maintenance, however, despite best efforts UJVN Ltd. has not been able to complete the maintenance works within 60 days and the average time required for maintenance is approx. 80 days as mentioned below:

The average time required for AM/CM for the last six years are as under:

Table 3.31: Average Time required for AM/CM for MB-II HEP submitted by UJVN Ltd.

Years	Unit -1	Unit -2	Unit 3	Unit-4	Average Time
2012-13	90	107	86	101	96
2013-14	-	76	66	209	117
2014-15	74	73	69	87	76
2015-16	67	65	61	78	68
2016-17	71	97	73	91	83
2017-18	77	72	70	85	76
Average					**86**

The Petitioner, therefore, submitted that due to the adverse operating conditions of MB-II generating station, the NAPAF of 82% is non-achievable and, therefore, the Petitioner requested the Commission to allow relaxation in NAPAF and revised the NAPAF of MB-II HEP to 68.96 % from FY 2017-18 onwards.

- **Dhakrani**: The Dhakrani Power Station is a very old HEP & requires more maintenance, hence, has to be shut down for longer periods to carry out maintenance. Further, RMU works has also been planned during the control period for Dhakrani HEP. In view of the above, the Petitioner sought deviation in NAPAF for the Third Control Period from FY 2019-20 to FY 2021-22 from the earlier approved norms by the Commission as given below:

  - NAPAF for FY 2019-20=60% (slightly deviated from earlier approved NAPAF)

- NAPAF for FY 2020-21=60*2/3+60*1/3*6/12 = 50% (Due to RMU of one machine for 6 month)
- NAPAF for FY 2021-22= 60*2/3=40% (Due to RMU)

- **Dhalipur**: The Dhalipur Power Station is very old HEP & requires more maintenance hence, has to be shut down for longer periods to carry out maintenance. Further, RMU works has also been planned during the Control Period for Dhalipur HEP. In view of the above, the Petitioner sought deviation in NAPAF for the Third Control Period from FY 2019-20 to FY 2021-22 from the earlier approved norms by the Commission as given below:
  - NAPAF for FY 2019-20= 60*2/3=40% (Due to RMU)
  - NAPAF for FY 2020-21= 60*2/3=40% (Due to RMU)
  - NAPAF for FY 2021-22= 60*2/3+60*1/3*6/12 = 50% (Due to RMU of one machine for 6 month)
- **Kulhal**: The Petitioner is not seeking any relaxation in NAPAF for the Third Control Period.
- **Khatima**: In respect to the Khatima Hydro Power Station, the Petitioner submitted that the water release in canal is purely irrigation based and control of the same is with Uttar Pradesh Irrigation Department. In past, canal closure had been taken from 03.11.2015 to 17.11.2015, 14.10.2016 to 06.11.2016 and 09.11.2017 to 28.11.2017. Currently, canal is under closure by UPID w.e.f. 01.12.2018.

Therefore, the Petitioner sought slight deviation in NAPAF for the Third Control Period from FY 2019-20 to FY 2021-22 from the earlier approved norms by the Commission.

Commission's Analysis

Regulation 47(1) (b) of UERC Tariff Regulations, 2018 specifies as under:

"(b) For existing hydro generating stations:

The trajectory for NAPAF fixed by the Commission in case of existing hydro generating stations, in the preceding Control Period would continue to be applicable. However, the NAPAF of the stations undergone RMU would be adjusted accordingly, considering the impact of RMU."

The Commission has gone through the submission of the Petitioner and is of the view that most of the reasons stated by the Petitioner are related to the operational issues which has already been considered by the Commission while approving the NAPAF of the generating stations. Further, as the RMU works for some of the nine old generating stations are yet to be completed, the Commission is of the view that the NAPAF approved vide Tariff Order dated 29.03.2017 for FY 2017-18 shall continue to be applicable for the Third Control Period. Accordingly, the Commission has approved the NAPAF for each station for Third Control Period equivalent to NAPAF approved vide Tariff Order dated 29.03.2017 for FY 2017-18. However, the Commission shall take a fresh view on the same once the RMU works for the stations get completed. For Khatima HEP, as the RMU works are completed, the Commission vide its Order dated 29.03.2017 had approved the NAPAF for Khatima LHP. The Commission in its order dated 29.03.2017 had stated as under:

"It is observed that the Commission in its MYT Order dated 06.05.2013 for First Control Period from FY 2013-14 to FY 2015-16 had approved the NAPAF of 78% for Khatima LHP. Further, UJVN Ltd. in its Review Petition dated 01.07.2013 had projected the NAPAF of 67%. However, the Commission in its Order dated 03.09.2013 in view of ongoing RMU works had approved the NAPAF of 47%. As the RMU works for Khatima will be completed in FY 2016-17, the Commission directed UJVN Ltd. to submit the detailed computation of PAFY proposed in Review Petition dated 01.07.2013 by UJVN Ltd. In response, UJVN Ltd. submitted the detailed computation of PAFY of 67%. It is observed that in the detailed computation, all the eventualities of closure/loss of generation as submitted by UJVN Ltd. in the current proceeding and discussed in the above paragraph have been factored. Hence, repeated revision of NAPAF is unwarranted. However, UJVN Ltd. had then considered generator efficiency of 96% and turbine efficiency of 90% for projecting NAPAF whereas, the contract for RMU works of Khatima was awarded to the Joint Venture of M/s Alstom India Ltd. & M/s PES Engineers Pvt. Ltd. and based on guaranteed parameters by M/s Alstom India Ltd., it is observed that the guaranteed generator efficiency is 97% and turbine efficiency is 93% after RMU completion. Therefore, considering the generator efficiency of 97% and turbine efficiency of 93%, the achievable PAFY for Khatima LHP works out to 69.30%. Accordingly, the Commission has revised the NAPAF for Khatima LHP to 69.30% post RMU works for the rest of the Control Period, i.e. FY 2017-18 and FY 2018-19 for recovery of capacity charges."

The Commission has, accordingly, considered the NAPAF for Khatima LHP as 69.30%.

Further, in case of MB-II HEP while approving the NAPAF, the Commission has already factored in the increase in operational efficiency by considering the reservoir level upto 1108 m, modification in tail race channel (TRC) and other related works carried out by the Petitioner. The Commission vide its Order dated 29.03.2017 had stated as under:

"The Commission has gone through the submissions of the Petitioner. The Commission in its MYT Order dated 06.05.2013 for the First Control Period had approved a NAPAF of 85% for MB-II. The Petitioner in its Review Petition had filed for revision of NAPAF approved by the Commission for first Control Period and prayed to relax the NAPAF for the station to 52% due to various factors including restrictions on dam height, high silt, evacuation problem in TRC and various other factors. The Commission in its Review Order dated 03.09.2013 considered the relaxation to NAPAF on account of following factors, viz.

(i) restriction of the level of Joshiyara barrage to 1104 m against FRL of 1108 m due to rehabilitation and resettlement problem near the barrage (98.38% availability),

(ii) restriction of plant generation to 280 MW instead of full load of 304 MW on account of higher vibration in machines due to improper water evacuation in Tail Race Channel (92.10% availability);

(iii) *Normal maintenance period of 60 days due to extensive repair of major components of machines. The Commission in its Review Order dated 03.09.2013 had considered 35 days for annual maintenance and allowed 25 days more in normal maintenance. (Availability of 93% in FY 2013-14, 95% in FY 2014-15 and 97% in FY 2015-16).*

Accordingly, the Commission in its Review Order dated 03.09.2013 had approved the NAPAF of 85% x 98.38% x 92.10% x 97% = 74% in FY 2015-16.

As discussed above, the dam height issue is now resolved and further TRC modification works have now been completed, therefore, the Commission has not reduced availability on account of the same. With regard to impact of shutdown on account of overhauling as given in (iii) above, the Commission has considered factor of 97% towards machine availability as approved for FY 2015-16. Hence, NAPAF stands revised to 82.00% (i.e. 85% x 97%) for rest of the Control Period, i.e. FY 2017-18 and FY 2018-19."

The Commission has, accordingly, approved the NAPAF as 82% for MB-II Generating station for FY 2017-18 and FY 2018-19. However, based on the submissions of the Petitioner and on perusal of the past performance of the MB-II generating station, the Commission observed that the MB-II generating station has not achieved its NAPAF for the past 10 years even after elimination of all the constraints stated by the Petitioner. In this regard, the Commission is of the view that a detailed study/analysis needs to be conducted for finding out the actual reasons that hinders the plant performance despite the fact that various works have been carried out by the Petitioner post CoD of the project. Such study shall comprise of the present operational practices including running plant as a peaking station, outage schedules/practices and inventory management being adopted by UJVN Ltd. and other related factors which hampers the Plant performance /Availability. Therefore, the Commission decides to conduct the above study through an independent technical expert consultancy firm, which shall submit a detailed report on the same. Based on the findings of this study, the Commission shall take a view on the NAPAF of the MB-II generating station for the Third Control Period, i.e. from FY 2019-20 to FY 2021-22. However, at this point of time the Commission provisionally approves the NAPAF of MB-II generating station as 82% for the Third Control Period.

Accordingly, the Commission approves the NAPAF of 10 LHPs for the Third Control Period as shown in the Table below:

Table 3.32: NAPAF as approved by the Commission for Third Control Period

Generating Station	Approved as per T.O. dated 29.03.2017 for FY 2017-18 (%)	Proposed by UJVN Ltd. (%)			Now Approved (%)		
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2019-20	FY 2020-21	FY2021-22
Dhakrani	66.17	60.00	50.00	40.00	66.17	66.17	66.17
Dhalipur	61.07	40.00	40.00	50.00	61.07	61.07	61.07
Chibro	65.06	63.00	63.00	63.00	65.06	65.06	65.06
Khodri	57.23	55.00	55.00	55.00	57.23	57.23	57.23
Kulhal	65.00	65.00	65.00	65.00	65.00	65.00	65.00
Ramganga	19.00	15.00	15.00	15.00	19.00	19.00	19.00
Chilla	74.00	56.00	56.00	44.00	74.00	74.00	74.00
MB-I	79.00	52.00	53.00	57.00	79.00	79.00	79.00
Khatima	69.30	65.00	65.00	65.00	69.30	69.30	69.30
MB-II	82.00	66.00	66.00	66.00	82.00	82.00	82.00

However, while truing up for respective years, the Commission shall consider the outage period on account of RMU works while re-stating the actual PAFM subject to prudence check in accordance with the Regulations/Orders of the Commission in this regard.

4 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing-up of 9 LHPs & MB-II for FY 2017-18

Regulation 12 of the UERC Tariff Regulations, 2015 specifies as follows:

"12. Annual Performance Review

(1) Under the multi-year tariff framework, the performance of the Generating Company or Transmission and Distribution Licensees or SLDC, shall be subject to an Annual Performance Review.

(2) The Applicant shall under affidavit and as per the UERC (Conduct of Business) Regulations 2014 as amended from time to time, make an application for Annual Performance Review by November 30th of every year;

…

(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."

In its present filings, the Petitioner has submitted the data relating to its expenses and revenues for FY 2017-18 for nine LHPs and MB-II based on the audited accounts and has, accordingly, requested the Commission to carry out the truing-up for FY 2017-18. In addition to the above, with regard to MB-II, the Petitioner has also requested the Commission to consider the capital cost as Rs. 1923.60 Crore as on CoD.

In the matter of truing-up of AFC of MB-II the Commission vide its Tariff Order dated 21.03.2018 has already carried out the final True Up upto FY 2016-17 considering the capital cost of Rs. 1885.50 Crore as approved by the Commission as on CoD of the project. Hence, the Commission in the current tariff proceedings has decided to carry out truing-up of MB-II for FY 2017-18 considering the capital cost as on CoD as approved by the Commission in the Tariff Orders dated 21.03.2018 in accordance with the UERC Tariff Regulations, 2015.

4.1 Impact of Sharing of Gains and Losses on account of Controllable Factors for FY 2017-18

Regulation 14 of the UERC Tariff Regulations, 2015 specify as follows:

"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 or loss shall be passed on as a rebate or allowed to be recovered in tariffs over such period as may be specified in the Order of the Commission;

b) The balance amount of such gain or loss may be utilized or absorbed by the Applicant."

The UERC Tariff Regulations, 2015 requires 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 revenues subject to prudence check including pass through of impact of uncontrollable factors.

O&M expenses comprise of the major portion of AFC of UJVN Ltd. and are within the control of the Petitioner and, moreover, in accordance with UERC Tariff Regulations, 2015 these are controllable expenses. Similarly, in accordance with the UERC Tariff Regulations, 2015, the variation in working capital requirements and variations in performance parameters are also a controllable factor. Hence, the sharing of gains and losses has been carried out for these expenses.

Accordingly, the Commission has worked out the Trued Up (surplus)/gap of the Petitioner after sharing of gains and losses as per the provisions of UERC Tariff Regulations, 2015.

4.1.1 *Physical Parameters*

4.1.1.1 *Relaxation sought in approved NAPAF*

A. Relaxation sought for 9 LHPs

The Commission vide its MYT Order dated 05.04.2016 had approved the NAPAF for 9 LHPs of UJVN Ltd. for FY 2017-18 in accordance with Regulations 47(1)(b) of UERC Tariff Regulations, 2015 as under:

Table 4.1: NAPAF approved vide Order dated 05.04.2016 for FY 2017-18

Sl. No.	Name and Type of Plant		NAPAF Approved by the Commission in Order dt. 05.04.2016 for FY 2017-18
1	Dhakrani	RoR	66.17%
2	Dhalipur	RoR	61.07%
3	Chibro	Pondage	65.06%
4	Khodri	Pondage	57.23%
5	Kulhal	RoR	65.00%
6	Ramganga	Storage	19.00%
7	Chilla	RoR	74.00%
8	MB-I	Pondage	79.00%
9	Khatima	RoR	-

With regard to Khatima HEP, the Commission in its aforesaid Order stated that:

"... For Khatima HEP, as the RMU works are likely to be completed, the Commission at this stage has approved the NAPAF only for FY 2016-17. For FY 2017-18 and FY 2018-19 the Commission will approve the NAPAF of Khatima HEP as a part of APR Petition for FY 2016-17."

Accordingly, the Commission in its APR Order dated 29.03.2017 approved the NAPAF for Khatima HEP as 69.30% for FY 2017-18 & 2018-19.

In the current Petitions, the Petitioner has submitted the actual PAFY values achieved during FY 2017-18 and requested the Commission to relax the NAPAF norms for its plants namely Dhakrani, Dhalipur, Chibro, Ramganga, Chilla, MB-I and Khatima to the extent PAFY achieved during FY 2017-18. The actual PAFY achieved during FY 2017-18 are as under:

Table 4.2: Plant-wise actual PAFY achieved during FY 2017-18

Sl. No.	Name and Type of Plant		NAPAF approved in T.O. dated 29.03.2017 (%)	PAFY (in %)
1	Dhakrani	RoR	66.17	59.70
2	Dhalipur	RoR	61.07	59.64
3	Chibro	Pondage	65.06	64.95
4	Khodri	Pondage	57.23	57.84
5	Kulhal	RoR	65.00	71.64
6	Ramganga	Storage	19.00	15.29
7	Chilla	RoR	74.00	72.80
8	MB-I	Pondage	79.00	63.64
9	Khatima	RoR	69.30	64.37

In support of its claim, the Petitioner has submitted the plant-wise reasons for not being able to achieve prescribed NAPAF as follows:

- **Dhakrani:** The Petitioner has submitted that the generating station could not achieve NAPAF as the station is very old & requires more maintenance. The Petitioner further submitted that in order to carry out maintenance works, this station needs to be shut down for longer periods.
- **Dhalipur HEP:** The Petitioner has submitted that the generating station could not achieve NAPAF as the station is very old & requires more maintenance. The Petitioner further submitted that in order to carry out maintenance works, this station needs to be shut down for longer periods. The Petitioner further in its additional submission dated 11.02.2019 has submitted that Machine B of the Dhalipur HEP has been shut down on account of Reverse Engineering works for RMU of Dhalipur Hep from 06.03.2017 to 19.07.2017. The Petitioner, therefore requested the Commission to consider the relaxation in NAPAF on account of RMU works for Dhalipur HEP.
- **Chibro HEP:** The Petitioner has submitted that the generating station could not achieve NAPAF as the station is very old & requires more maintenance. The Petitioner further submitted that in order to carry out maintenance works, this station needs to be shut down for longer periods.
- **Ramganga:** The Petitioner submitted that the water released from Ramganga Dam is purely irrigation based and the control of which rests with Uttar Pradesh Irrigation Department and, therefore, they have no control over the same. Therefore, the Petitioner has requested the Commission to revise the NAPAF for FY 2017-18 as 15.29% instead of 19.00%.

- **Chilla:** The Petitioner has submitted that the generating station could not achieve NAPAF as the station is very old & requires more maintenance. The Petitioner further submitted that in order to carry out maintenance works, this station needs to be shut down for longer periods.
- **MB-I:** The Petitioner has submitted that the Power Station is suffering from excessive silt and ageing. The Petitioner further submitted that high erosion & detrimental effects of high quantum of silt with quartzite contents in the Bhagirathi river water results high damages to under water parts and equipment carrying the river water such as pipelines, valves etc. The Petitioner further submitted that in addition to above because of on-going construction work of all-weather road project in the upper zone of the catchment area of Bhagirathi river quantum of silt and quartz particle has increased in Bhagirathi river. The Petitioner further submitted that the frequent shut downs along with planned maintenance is required during monsoon period (Approximately 1 month) and during lean discharge period (80 days) are required to be taken up for operating the unit in safe operating conditions.

Further, the Petitioner also submitted that the most critical aspect in operation of power house is shortfall in the design aspect. The Petitioner submitted that there is only a single pressure shaft emanating in the downstream of the surge tank of Tiloth HEP (MB-I HEP) which gets trifurcated into 3 Nos. penstocks each feeding directly to the individual units. The problem arises when leakage starts due to detrimental effects of the silt in any of the equipment related to MIV or beyond such as valves, pipelines etc. In order to attend the same, the surge tank gate is required to be lowered and penstocks are required to be dewatered. Since there is a common pressure shaft from the surge tank hence, lowering of the surge tank gate results in complete closure of the power house attributing to high quantum of generation as well as availability loss.

Further, the Petitioner has submitted that on account of above situations the power station was under closures during FY 2017-18 is as under:

a) 30.06.2017 to 03.07.2017 i.e.4 days (due to leakage from penstock drain valve of Unit 3).

b) 25.07.2017 to 20.08.2017 i.e. 27 days (due to monsoon closure & interim maintenance of MIVs).

c) Apart from above, the RMU of Tiloth Powerhouse is under progress for which Unit No.1

remained out of service for site measurements (reverse engineering) for almost 5 months (13.02.2017 to 14.07.2017).

Further, the generating Units of Tiloth HEP shall be handed over for comprehensive RMU one after other (each unit for 12 months) starting from 13.12.2018 till 12.12.2021.

The Petitioner, accordingly, requested the Commission to revise the NAPAF as 63.64% from 79.00% as approved by the Commission for FY 2017-18.

- **Khatima**: The Petitioner has submitted that it is making its utmost efforts to achieve the NAPAF as approved by the Commission and requested to approve the NAPAF for FY 2017-18 as 64.37%, however, the Petitioner has not submitted any particular reason for non- achieving the targeted NAPAF.

Commission's Analysis

- **Dhakrani**

With regard to Dhakrani HEP, the reasons for not achieving NAPAF as submitted by the Petitioner is on account of ageing. The Commission in its Tariff Order dated 05.04.2016 while approving the NAPAF for FY 2017-18 had already factored in the outages including the shutdowns for maintenance works and relaxed the NAPAF of the generating station. Therefore, the Commission is of the view that there is no case for further relaxation with regard to the NAPAF or re-statement of PAFM for Dhakrani for FY 2017-18, and, therefore, no relaxation has been allowed by the Commission.

- **Dhalipur HEP**

With regard to Dhalipur HEP, the Commission has gone through the submission of the Petitioner. The Commission observes that reasons for not achieving NAPAF as submitted by the Petitioner is on account of ageing. Since, the Commission in its Tariff Order dated 05.04.2016 while approving the NAPAF for FY 2017-18 has already factored in the outage plan for the generating station which includes shutdowns for maintenance works and RMU works for the above generating station for FY 2017-18. Further, the Commission observed that one Unit of Dhalipur LHP was under shutdown from 01.04.2017 to 19.07.2017 on account of reverse engineering works of RMU. Since, the shutdown taken for reverse engineering works are part of the RMU works which was already considered in the Outage Plan submitted by the Petitioner for FY 2017-18. Therefore, no relaxation with regard to NAPAF for re-statement of PAFM for Dhalipur has been allowed by the Commission.

- **Chibro**

With regard to Chibro HEP, the reasons for not achieving NAPAF as submitted by the Petitioner are on account of ageing. The Commission in its Tariff Order dated 05.04.2016 while approving the NAPAF for FY 2017-18 had already factored in the outages including the shutdowns for maintenance works and relaxed the NAPAF of the generating station. Therefore, the Commission is of the view that there is no case for further relaxation with regard to the NAPAF or re-statement of PAFM for Chibro HEP for FY 2017-18, and, therefore, no relaxation has been allowed by the Commission.

- **Ramganga**

With regard to Ramganga HEP, the relaxation sought by the Petitioner was on account of the reason that the control of water release lies with Uttar Pradesh Irrigation Department (UPID). The Commission observes that the Petitioner itself in its Second MYT Petition had projected NAPAF for the station as 17.24% after factoring in the above reason. Further, it is also observed that the Petitioner was able to achieve PAFY of 30.07% in FY 2015-16 and had earned incentive on it. The Commission while approving NAPAF for the Second Control Period had considered the maximum of NAPAF approved for the first Control Period and that projected by the Petitioner for the Second Control Period which already factors in the fact that the control of water release lies with UPID. The Commission has, therefore, not allowed any relaxation with regard to NAPAF or re-statement of PAFM for Ramganga HEP for FY 2017-18.

- **Chilla HEP**

With regard to Chilla HEP, the reasons for not achieving NAPAF as submitted by the Petitioner is on account of ageing. The Commission in its Tariff Order dated 05.04.2016 while approving the NAPAF for FY 2017-18 had already relaxed the NAPAF of the generating station. Therefore, the Commission is of the view that there is no case for further relaxation with regard to the NAPAF or re-statement of PAFM for Chilla HEP for FY 2017-18, and, therefore, no relaxation has been allowed by the Commission.

- **MB-I HEP**

  With regard to NAPAF of MB-I for FY 2017-18, the Commission in its Order dated 03.09.2013 and subsequent Tariff Orders had already considered the operating problems on account of site conditions. Further, the Commission has observed that one Unit of MB-I LHP was under shutdown from 01.04.2017 to 14.07.2017 for reverse engineering works of RMU works. Since, the reverse engineering works are part of the RMU works approved by the Commission and earlier while approving the NAPAF for MB-I LHP, the outage on this account was not considered, therefore, the Commission has considered the same and has re-stated the PAFY of MB-I LHP as 70.45% for FY 2017-18 based on average PAFY of last 3 years considering the aforesaid outage.

- **Khatima HEP**

  In the absence of justifiable reasons, the Commission has not allowed any relaxation with regard to the NAPAF or re-statement of PAFM for FY 2017-18 and considered the same as 69.30% for Khatima LHP as approved in the Order dated 29.03.2017.

B. Relaxation sought for Maneri Bhali-II (MB-II) LHP

Petitioner's Submission

For MB-II LHP, the Commission, in its MYT Order dated 05.04.2016 had stated that:

"... to complete all works which are causing hindrances in achieving the reservoir level upto 1108 m and other related works which restrict the generation capacity as well as the design generation of MB-II HEP by the end of FY 2016-17... The Commission shall take a fresh view on the NAPAF for FY 2017-18 and FY 2018-19 once the reservoir is raised to the design height."

Accordingly, the Commission in its Order dated 29.03.2017 had revised the NAPAF for MB-II LHP as 82.00% for FY 2017-18.

In the instant Petition, the Petitioner has submitted that the Generating station could not achieve the norm because of the following reasons:

- Due to excessive silt in River Bhagirathi water under water parts eroded badly which results in extension of maintenance period of each machine as last year.
- Due to excessive PPM in River Bhagirathi water during monsoon period, Machines shaft

seal and other parts were damaged many time and results 355 Hrs of forced outage of machines in the month of July, August and Sep 2017.

- Due to stator earth fault in machine number 4, it was under breakdown for 536 Hrs from 23 August to 14 Sep 2017.

The Petitioner in its submission dated 12.12.2018, further submitted that the power station was commissioned in the financial year 2007-08. Due to operation of machine for more than past 10 years under adverse operating conditions in silt laden water, availability of machines has been adversely affected as maintenance hours has substantially increased.

The Petitioner vide its additional submission dated 31.01.2019 has submitted the comparison of PAF achieved by the Petitioner vis-à-vis NAPAF approved by the Commission during First and Second Control Period whose details are as under:

Table 4.3: NAPAF Approved vis-à-vis achieved as per the Petitioner's submission

Sl. No.	Financial Year	NAPAF approved in MYT Orders	PAFY approved/ Restated by the Commission after Truing up Exercise	PAF Achieved
1	2013-14	71	58.23	39.37
2	2014-15	73	53.72	40.03
3	2015-16	74	56.33	56.33
4	2016-17	61.51	65.15	65.15
5	2017-18	82	82	65.17

From the above, it is evident that the Petitioner was not able to achieve NAPAF as fixed by the Commission and therefore has incurred losses on account of non-recovery of Capacity Charges. The Petitioner has also submitted that the financial impact on the company is shown under:

Table 4.4: Financial Impact on AFC

Sl. No.	Financial Year	Approved AFC after True Up (Except for FY 2017-18)	Approved Capacity Charges	NAPAF approved by the Commission	Actual PAF Achieved	Loss/ Non recovered Capacity Charge	Loss in % of AFC
1	2013-14	234.07	117.04	58.23	39.37	37.91	16.2%
2	2014-15	225.86	112.93	53.72	40.03	28.78	12.7%
3	2015-16	231.65	115.82	56.33	56.33	0.00	0.00%
4	2016-17	237.35	118.68	65.15	65.15	0.00	0.00%
5	2017-18	255.95	127.98	82	65.17	26.27	10.30%
Total		**1184.88**	**592.44**		**266.05**	**92.95**	**7.8%**

From the above Table, it is evident that UJVN Ltd. is regularly incurring losses due to non-recovery of Capacity Charges which amounts to an average of 7.8% of AFC as approved by the Commission. The Petitioner has further submitted the daily status of Machine for FY 2017-18 as well as the river discharge data from FY 2008 to FY 2018. In addition, the Petitioner has also submitted the Barrage level for FY 2017-18.

Stating the above reasons, the Petitioner, in its Petition, submitted the PAFY achieved for FY 2017-18 as 65.17%. The Petitioner in its submission dated 31.01.2019 has further requested to revise the NAPAF of MB-II LHP to 68.96% from 2017-18 onwards.

Commission's View

The Commission has gone through the submissions of the Petitioner and is of the view that all above stated reasons have already been examined & analysed in detail and factored in during the process of determination of NAPAF and elaborated in the Commission's earlier Review Order dated 03.09.2013 and Tariff Order dated 29.03.2017. Therefore, no relaxation with regard to NAPAF or re-statement of PAFM for MB-II has been allowed by the Commission.

4.1.1.2 ***Energy Generation and Saleable Primary Energy***

The Commission in its MYT Order dated 05.04.2016 on approval of Business Plan and Multi Year Tariff for the Second Control Period from FY 2016-17 to FY 2018-19 had approved the Design Energy equivalent to the Design Energy approved in the previous Orders without considering impact of RMU in Khatima LHP. Further, the Commission vide its Order dated 29.03.2017 has approved the Design Energy for Khatima LHP as 235.59 MUs. UJVN Ltd. has not sought any deviation in the approved Design Energy for FY 2017-18. Accordingly, the Commission decides to maintain the Design Energy and Saleable Primary Energy as approved in the Commission's Order dated 29.03.2017. Accordingly, the Design Energy approved is as under:

Table 4.5: Design Energy and Saleable Primary Energy Approved for FY 2017-18 (MU)

Generating Station	Original Design Energy	Design Energy	Auxiliary consumption (including Transformation Loss)		Saleable Primary energy
	MU	MU	%	MU	MU
Dhakrani	169.00	156.88	0.70%	1.10	155.78
Dhalipur	192.00	192.00	0.70%	1.34	190.66
Chibro	750.00	750.00	1.20%	9.00	741.00
Khodri	345.00	345.00	1.00%	3.45	341.55
Kulhal	164.00	153.91	0.70%	1.08	152.83
Ramganga	385.00	311.00	0.70%	2.18	308.82
Chilla	725.00	671.29	1.00%	6.71	664.58
MB-I	546.00	395.00	0.70%	2.77	392.24
Khatima	235.59*	235.59	1.00%	2.36	233.23
MB-II	1566.10	1566.10	1.00%	15.66	1550.44
Total	**5077.69**	**4776.67**		**45.64**	**4731.13**

* Post RMU

4.1.2 *Financial Parameters*

4.1.2.1 *Apportionment of Common Expenses*

The Petitioner in its Petition has considered the allocation for indirect expenses in the ratio of 85:10:5 among 9 LHPs, MB-II and SHPs respectively as considered by the Commission in its order dated 21.03.2018. The Commission in its Order dated 21.03.2018 had considered the allocation for indirect expenses in the ratio of 85:10:5 among 9 LHPs, MB-II and SHPs respectively, stated as follows:

> *"Accordingly, in line with the above decision in the Order dated 05.04.2016, the Commission has considered the ratio of 85:10:5 among 9 LHPs, MB-II and SHPs, respectively, for allocation of common expenses. However, the Commission would like to point out that UJVN Ltd. is diversifying its business and is also in solar generation now, accordingly, while seeking truing-up for FY 2017-18, UJVN Ltd. would be required to review the basis for such apportionment of common expenses."*

Accordingly, the Commission vide its letter dated 18.12.2018 directed the Petitioner to review its basis of apportionment of common expenses as directed by the Commission in its Order dated 21.03.2018 considering its existing and proposed additions of solar power plants. In compliance to the same, the Petitioner submitted that the solar power plants are being installed through other parties on the basis of Build-Own-Operate (BOO)/Build-Own-Operate-Transfer (BOOT). UJVN Ltd., has deputed the one Executive Engineer, one Steno and three outsourced peons for looking after the solar business of UJVN Ltd.

The Petitioner further submitted that the above officials are merely looking after the works related to billing, official communication etc. only. UJVN Ltd. is not incurring any substantial amount on the Employee and A&G head which is not expected to be increased in the future also. Therefore, the Petitioner requested the Hon'ble Commission to consider the existing Apportionment Scheme i.e. 85:10:5 for LHPs, MB-II and SHPs respectively in the Third Control Period also.

The Commission has gone through the submission of the Petitioner. The Commission in its TVS session held at Commission's office on 08.01.2019 again directed the Petitioner to relook into the matter and submit some approach for allocating the common expenses to solar power plants as it is a new business vertical for UJVN Ltd.

In this regard, the Petitioner vide its letter dated 25.01.2019 has submitted the approach for allocating expenses towards the Solar Business as under:

Table 4.6:Allocation of Common Expenses towards Solar Business

Sl. No.	Description	Amount	Unit
1	Total sales from the export of energy in FY 2017-18 for all LHPs & SHPs of UJVN Ltd.	586.78	Crore
2	Net Revenue Earned by UJVN Ltd., in FY 2017-18 from sale of solar power produced by solar developer	1.76	Crore
3	Total revenue earned by UJVN Ltd. from sales of energy in FY 2017-18 (Sl. No. 1+2)	588.54	Crore
4	Total common expenses in FY 2017-18 (Common expenses for FY 2017-18 as per audited account for CSPPO, Head Office and Central Accounts are Rs. 48.51 Crore, Rs. 42.80 Crore and Rs. 37.31 Crore respectively)	128.63	Crore
5	Percentage (%) of common expenses to total sales UJVN Ltd. (amount in Sl. No. 4/amount in Sl. No. 3)	21.86%	
6	*Proposed percentage (%) of common expenses to Revenue earned by UJVN Ltd. from Solar Business of UJVN Ltd. (20% of S. No. 5)	4.37%	
7	Common Expenses to be allocated towards Solar Business (Sl. No. 6 x Sl. No. 2)	7.69	Lakh

**As the solar activities are totally managed by Solar Power Developers, it is submitted that the allocation of common expenses to Revenue earned by UJVN Ltd. from Solar Business in FY 2017-18 from sale of solar power is proposed to be taken 20% of LHPs and SHPs.*

The Petitioner further submitted that as the tariff of solar Plants are levellised tariff, the revenue earned would remain almost same for 25 Years. Therefore, UJVN Ltd., proposes to allocate 4.37% of Net Revenue Earned by UJVN Ltd. in FY 2017-18 from sale of Solar power produced by Solar developer. Based on the above approach, the Petitioner therefore requested the Commission that Common Expense towards Solar Business may kindly be allocated @ 4.37% of 1.76 Crore (Net

Revenue Earned by UJVN Ltd. in FY 2017-18 from sale of solar power produced by solar developers) i.e. Rs. 7.69 Lakh.

The Petitioner further prayed that after above allocation of Common Expenses for Solar component, balance common expenses may be allocated among LHPs and SHPs as per prevailing practice of UJVN Ltd.

The Commission in this regard does not accept the allocation methodology proposed by the Petitioner for its Solar business expenses and is of the view that the since the solar business is a new business vertical for UJVN Ltd. the expenses incurred for the Solar business should be treated separately from the expenses for 9 LHPs and MB-II Generating station. However, the Commission, as of now, has considered the submissions of the Petitioner and has deducted an amount of Rs 7.69 Lakh as proposed by the petitioner. The Commission is of the view that Petitioner needs to book the overheads/recurring operation & maintenance cost of Solar business under a separate head and maintain separate accounting for the same. **The Commission directs the Petitioner to submit the details of expenses allocated to solar business during FY 2018-19 and approach for allocation of Common expenses for solar power plant as it is a new business vertical for UJVN Ltd. as part of truing up for FY 2018-19.**

4.1.2.2 ***Capital Cost***

A. Old Nine Generating Stations

Pending finalization of the Transfer Scheme, for various reasons recorded in the previous Tariff Orders, the Commission had been approving the opening GFA for the nine LHPs as on 14.01.2000 as Rs. 506.17 Crore.

The Commission vide its Order dated 21.03.2018 had directed UJVN Ltd. to submit the quarterly status report towards finalization of transfer scheme. Further, the Commission vide its Order dated 21.03.2018 also pointed out that there has been an inordinate delay in the finalization of the transfer scheme which is attributable to the Petitioner, hence, any consequential claim arising due to finalization of the transfer scheme shall be considered on merits by the Commission without any carrying cost on the same. In response, the Petitioner has submitted that the issues regarding transfer scheme viz. (a) liability of LIC loan of Rs. 352.59 Crore regarding MB-II LHP and (b) remittance of GPF liabilities of Rs. 135.78 Crore are yet to be finalized. The Petitioner in compliance to the above directive submitted that:

" 1. On 10th day of April, 2017, a meeting was held between Hon'ble Chief Minister of Uttarakhand and Uttar Pradesh on division of assets & liabilities between State of Uttarakhand and Uttar Pradesh. Matters pertaining to UJVNL and UPJVNL were also discussed. The only two pending points pertaining to the value of division of assets and liabilities of UJVNL and UPJVNL were discussed during the Meeting are summarized below:-

- *Loan taken by UPSEB from LIC for Maneri Bhali Stage-II Project.*
- *Remittances of GPF liabilities.*

However, few other issue as detailed below were also discussed in the meeting

- *Joint control of UJVNL and UP (ID) for smooth functioning of Ram Ganga Dam, Sharada power channel and Upper Ganga power channel for Pathri and Mohd. Pur Power House.*
- *Claim on ownership and management of Khodri Power House by UPJVNL.*
- *Claim on 50% of energy generation by Kalagarh Power House by UPJVNL*

2. *On 08.04.2018, a meeting was held between Chief Secretary of both states for division of assets & liabilities between State of Uttarakhand and Uttar Pradesh. Matters between UJVNL and UPJVNL were also discussed.*
3. *Recently a meeting was held on 28.06.2018 at Lucknow, between Chief Secretary of both states on the above matter. In the meeting, it is agreed that the Government of UP will remit 90% of the GPF liabilities as on 09.11.2001 to Uttarakhand and the matter of LIC loan and Ownership and management of Khodri Power house be referred to the Central Government for final decision.*

As detailed above, issue of finalization of Transfer Scheme is at final stage of settlement."

The Commission has noted the submissions of the Petitioner and again directs Petitioner to closely follow up with issue and submit quarterly status report to the Commission. The Commission would again like to point out that there has been an inordinate delay in the finalization of the transfer scheme which is attributable to the Petitioner, hence, any consequential claim arising due to finalization of the transfer scheme shall be considered on merits by the Commission without any carrying cost on the same.

Since, the Transfer Scheme is yet to be finalized, the Commission for the purposes of truing-up for FY 2017-18 has considered the opening GFA of nine LHPs, as on 14.01.2000 as Rs. 506.17 Crore as per the details given below:

Table 4.7: Approved Capital Cost for 9 LHP's as on CoD (Rs. Crore)

Generating Station	Claimed	Approved
Dhakrani	12.40	12.40
Dhalipur	20.37	20.37
Chibro	87.89	87.89
Khodri	73.97	73.97
Kulhal	17.51	17.51
Ramganga	50.02	50.02
Chilla	124.89	124.89
MB-I*	111.93	111.93
Khatima	7.19	7.19
Total	**506.17**	**506.17**

**Including DRB claim*

B. Maneri Bhali-II

The Petitioner has requested the Commission to consider the capital cost of Rs. 1923.60 Crore as on CoD, i.e. 15.03.2008 and, accordingly, allow True Up of AFC and Tariff for MB-II HEP.

With regard to fixation of the Capital Cost of MB-II on the date of its Commercial Operation (CoD), the Commission in its Tariff Order dated 05.04.2016 had revised the Capital Cost as on CoD to Rs. 1885.50 Crore and stated as follows:

"The Commission in the current tariff proceedings observed that the Petitioner has submitted that the Capital Cost as *on COD included provisioning towards discharge of liabilities in future amounting to Rs. 3.72 Crore which was actually discharged in FY 2008-09 and wrongly included as R&M expenses. In accordance with MYT Regulations, 2011, any capital expenditure after COD is to be considered as additional capital expenditure subject to condition provided there in and also it has been the approach of the Commission in the past to not allow tariff on the provisioned amount and, therefore, the Commission has revised the Capital Cost of MB-II as on COD to Rs. 1885.50 Crore. Further, the Commission has considered the aforesaid amount of Rs. 3.72 Crore as additional capitalisation in FY 2008-09 as the same was actually discharged during FY 2008-09."*

Moreover, the Petitioner has filed an Appeal before the Hon'ble ATE vide its Appeal No. 283 of 2016 agitating the issue of Capital Cost of MB-II LHP and RoE on PDF as approved by the Commission in its MYT Order dated 05.04.2016, which is still pending before the Hon'ble ATE. Hence, pending disposal of the Appeal, the Commission does not find any reason to revisit the capital cost of MB-II LHP as already approved by it in the Tariff Order dated 21.03.2018.

Accordingly, in line with the above decision in Tariff Order dated 21.03.2018, the Commission for the purposes of this Tariff Order is considering the capital cost for MB-II Power Station as on CoD i.e. 15.03.2008, as Rs. 1885.50 Crore as per the details given below:

Table 4.8: Approved Capital Cost for MB-II as on CoD (Rs. Crore)

Particulars	Approved in T.O. dt. 21.03.2018	Approved Now
Capital Expenditure	1490.98	1490.98
Add: Adjustment on Account of DRB Award	44.51	44.51
Price Variation	-7.94	-7.94
Sub-total (A)	**1527.55**	**1527.55**
IDC & Other Financial Charges		
Interest paid to PFC	257.41	257.41
Guarantee Fee	28.86	28.86
Intt. On GoU Loan	5.04	5.04
Intt. Repayment AGSP	66.64	66.64
Excess Guarantee Fee Payable	0.00	0.00
Sub-total (B)	**357.95**	**357.95**
Total Capital cost (A+B)	**1885.50**	**1885.50**

Further, financing of the approved capital cost of MB-II Power Station approved as on CoD is shown in the Table below:

Table 4.9: Financing for MB-II as on CoD (Rs. Crore)

Particulars	Approved in T.O. dt. 21.03.2018	Approved Now
Loans		
PFC Loan	1200.00	1200.00
Unpaid Liability	0.00	0.00
Guarantee Fee Payable	0.00	0.00
Normative Loan	119.85	119.85
Total debts	**1319.85**	**1319.85**
Equity		
PDF	326.76	326.76
GoU Budgetary support	74.89	74.89
Pre-2002 expense	164.00	164.00
Total Equity	**565.65**	**565.65**
Total Loan and Equity	**1885.50**	**1885.50**

In the above Table, the total equity, i.e. Rs. 565.65 Crore which is 30% of the total approved Capital Cost of MB-II, has been considered to be funded by way of pre-2002 expenses of Rs. 164 Crore, actual disbursement from PDF upto CoD of Rs. 326.76 Crore and the balance amount of Rs. 74.89 Crore from the GoU budgetary support.

4.1.2.3 *Additional Capitalisation*

A. Old Nine Generating Stations

In addition to the opening GFA of Rs. 506.17 Crore as on 14.01.2000 of 9 LHPs, the Commission had approved the additional capitalization from FY 2001-02 to FY 2016-17amounting to Rs.274.45 Crore (including De-cap of Rs. 2.03 Crore) in its previous Tariff Orders.

Accordingly, the additional capitalisation from FY 2001-02 to FY 2016-17 so far considered by the Commission for 9 LHPs is shown in the Table below:

Table 4.10: Additional Capitalisation already approved by the Commission from FY 2001-02 to FY 2016-17 for 9 LHPs (Rs. Crore)

Generating Station	Amount
Dhakrani	6.41
Dhalipur	5.31
Chibro	31.44
Khodri	20.31
Kulhal	3.57
Ramganga	6.63
Chilla	21.63
MB-I	35.74
Khatima	145.45*
Total	**276.49**

**Excluding de-capitalisation of Rs. 2.03 Crore in FY 2014-15*

Based on the approved capital cost of 9 LHPs as on 14.01.2000 and considering, the additional capitalisation upto FY 2016-17 for these LHPs, the Commission has considered the opening GFA for FY 2017-18 for nine LHPs as presented below:

Table 4.11: Opening GFA for 9 LHPs as considered by the Commission for FY 2017-18 (Rs. Crore)

Generating Station	Amount
Dhakrani	18.81
Dhalipur	25.68
Chibro	119.33
Khodri	94.28
Kulhal	21.08
Ramganga	56.65
Chilla	146.52*
MB-I	147.66**
Khatima	150.61***
Total	**780.62**

**Including de-capitalisation of Rs. 16.53 Crore in FY 2016-17 for DRIP*
*** Including DRB claim*
****Including de-capitalisation of Rs. 2.03 Crore in FY 2014-15*

The Petitioner for its 9 LHPs has claimed the additional capitalisation for FY 2017-18 as given in the Table below:

Table 4.12: Additional Capitalisation for 9 LHPs claimed by the Petitioner for FY 2017-18 (Rs. Crore)

Generating Station	Additional Capitalisation	De-Capitalisation	Net Additional Capitalisation
Dhakrani	2.93	0.01	2.92
Dhalipur	21.21	0.02	21.19
Chibro	14.30	0.08	14.21
Khodri	12.79	0.04	12.75
Kulhal	8.67	0.01	8.66
Ramganga	27.98	0.07	27.91
Chilla	21.88	0.05	21.83
MB-I	1.24	0.03	1.21
Khatima	16.02	2.66	13.37
Total	**127.03**	**2.98**	**124.06**

It is observed that the Commission in its Order dated 29.03.2017 had considered the additional capitalisation of Rs. 92.03 Crore for FY 2017-18, however, UJVN Ltd. in this instant Petition has claimed additional capitalisation of Rs. 124.06 Crore for FY 2017-18. The Commission however, observed that UJVN Ltd. has sought additional capitalization for almost all the LHPs during FY 2017-18 by just stating that the same is essential for the efficient operations of the plant and the need of additional capitalization has not been properly justified in the Petition as per Regulation 22(2) of the UERC Tariff Regulations, 2015. The Commission observed that as per Regulation 22(2) of the UERC Tariff Regulations, 2015 all the additional capitalization after the cut-off date of the LHPs should be substantiated with technical justification duly supported by documentary evidence like test results carried out by independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level, etc. and has sought detailed justification for additional capitalisation claimed along with station-wise reconciliation with audited accounts for FY 2017-18. The Petitioner in response submitted the detailed justification for each plant along with the vouchers for works more than 10 lakhs for 10 LHPs and the station-wise reconciliation of the additional capitalization with audited accounts for FY 2017-18 along with the necessary supporting documents.

Further, the Commission while going through the details of the additional capitalisation during FY 2017-18 has observed that the Petitioner has claimed an amount of Rs. 18.17 Crore on DRIP works.

Table 4.13: Additional Capitalisation for 9 LHPs claimed by the Petitioner for FY 2017-18 (Rs. Crore)

Generating Station	Chilla	Chibro	Khodri	Dhakrani	Dhalipur	Kulhal	Total DRIP
Additional Capitalization claimed	12.60	0.33	0.16	1.05	1.59	2.43	**18.17**

The Commission vide its letter dated 09.01.2019 has asked the Petitioner to submit separate information on DRIP works covering financial year wise details of expenses incurred / proposed to be incurred along with the funding details in the requisite format. The Petitioner in response has submitted the financial year wise details of 5 dams and Barrages namely Ichari, Dakpathar, Asan, Virbhadra and Maneri Dam. However, the Petitioner has failed to provide the details regarding funding of these capital expenditure.

The Commission in its earlier order dated 21.03.2018 had observed as under:

"As the works under DRIP scheme have separate financing structure, the Commission sought station-wise works under DRIP scheme along with the financing of the scheme separately from other capital expenditure claimed and also directed to submit the revised financing of schemes other than DRIP. In response, UJVN Ltd. in its reply dated 23.02.2018 submitted that for DRIP projects 80% funding will be from World Bank (50% IDA credit and 50% IBRD loan) and 20% funding will be from State/Central Government budgetary support. Out of the total estimated cost of Rs. 2100 Crore, the share of World Bank, DRIP States and Centre shall be Rs. 1680 Crore, 393.60 Crore and Rs. 26.40 Crore respectively. Further, the Petitioner has also submitted the Loan agreement for DRIP works vide which the cost of borrowing to UJVN Ltd. shall be as per loan terms and conditions to be defined by GoU at the time of sanction of such funds/loans to UJVN Ltd. However, the details of financing cost associated with the funding is not clear in the Loan agreement as submitted by the Petitioner.

Based on the above submissions of the Petitioner with regard to works carried out under DRIP Scheme, the Commission is of the view that since the works under the DRIP Scheme has not been capitalised yet, therefore, the Commission has not considered the expenses claimed by the Petitioner for FY 2016-17 under DRIP Scheme."

The Commission has observed that the Petitioner has now capitalized Rs. 18.17 Crore in FY

2017-18 against the works carried out under DRIP scheme. As per submission of the Petitioner, the funding of DRIP projects will be in the proportion of 80% from World Bank (50% IDA credit and 50% IBRD loan) and 20% funding will be from State/Central Government budgetary support scheme.

The Petitioner vide its letter dated 21.02.2019 made an additional submission regarding revision of cost of the works proposed under DRIP scheme from 194.90 Crore to 239.50 Crore. Since, the said submission has been made at the end of tariff proceedings, therefore, the Commission has not considered the same in the current tariff proceedings.

The financing pattern of the works covered under DRIP scheme is still unclear as details of loan/grant and rate of interest for the loan amount has not been furnished to the Commission. Therefore, the Commission decides not to allow the aforesaid capitalization under DRIP scheme in FY 2017-18 at this stage. **The Commission directs the Petitioner to come up with the firm financing details for the works covered under DRIP scheme at the time of filing of next Tariff Petition and the Commission may consider the same, subject to prudence check. Further, the Petitioner is also directed to submit plant-wise details of works done/proposed under DRIP scheme alongwith capitalization latest by 30.06.2019.**

With regard to additional capitalisation for Dhalipur LHP, the Commission has observed that an amount of Rs. 13.98 Crore has been claimed against construction of a new 132/33 kV sub-station of 25 MVA capacity at Dhalipur. In this regard, the Commission sought proper justification, details of outgoing feeders and beneficiaries of the sub-station alongwith the need for incurring such expenses. In response, the Petitioner vide its letter dated 18.01.2019 submitted that the necessity for the construction of 132/33/11 kV Sub-station at Dhalipur Power Station arises to fulfil the requirement of auxiliary supply to Dhalipur LHP, to cater the load of Dhalipur colony and to evacuate the solar power generation from 15.5 MW canal bank scheme.

The Commission has observed that the aforesaid Sub-station is being utilized majorly (18.23 MVA out of 25 MVA installed capacity) for evacuation of solar power which is a new vertical of business for UJVN Ltd. Further, it has also been observed that a 5 MVA, 33/11 kV Transformer has also been installed to cater the colony consumption and plant auxiliary consumption of Dhalipur LHP, which is fed from the above 132/33 kV, 25 MVA Transformer.

The Commission is of the view that the Petitioner should apportion its expenditure into solar business and 10 LHPs separately. The Commission does not find it justifiable to allow the cost of 25 MVA Sub-station as a part of Dhalipur LHP and since only 20% i.e. 5 MVA (out of total installed capacity of 25 MVA) actually being utilized by Dhalipur LHP. The Commission has accordingly, allowed the expenditure in the ratio 80:20 allocating 80% of the total cost incurred in construction of 132/33 kV Sub-station to Petitioner's solar business and 20% to Dhalipur LHP. Hence, the Commission, while truing up the expenses of FY 2017-18, has allowed only Rs. 2.80 Crore towards the construction of new 132/33 kV Sub-station Dhalipur.

The Commission while scrutinizing the vouchers of additional capitalization of 10 Lakh and above has observed that the Petitioner has claimed an amount of Rs.8.09 Crore on account of capital maintenance of Unit-2 of Chibro HEP. The Commission further observed that the capital expenditure claimed for capital maintenance of Unit-4 during FY 2016-17 was Rs. 4.90 Crore. The Commission has sought the reason for huge variation from the Petitioner and also the reason for claiming the same under additional capital expenditure despite specific direction from the Commission. The Petitioner, in response, vide its letter dated 18.01.2019 has submitted that the capital maintenance of Unit-2 was comprising of necessary additional works such as supply of Middle brush, supply of centric Connecting pin of Regulating ring, Re-tubing work of stator air cooler as per scope of work, dismantling, machining, polishing and assembly of minor disc and supply of shaft coupling bolts with nuts, thereby increasing the amount of capital maintenance of Unit-2. Further, the Petitioner has also submitted that these types of capital works are carried out after a period of 10 years.

With regard to the nature of expenses to be booked under the respective head of ARR, earlier, the Commission vide its Order dated 21.03.2018 has specifically stated as under and directed to comply the philosophy in future claims:

"It is observed that UJVN Ltd. is having different approach for claiming expenses under major overhauling for different plants. In this regard, the Commission is of the view that the nature of expense is independent of the values of expense being incurred and thus the expenses should be booked under the respective head of ARR under which it should actually fall. ***Hence the Commission has taken a view that all the works related to Major overhaul claimed under additional capitalization is shifted to R&M expenses of UJVN Ltd. The Petitioner is further directed to comply the same***

philosophy in future claims as well."

In line with the above, the Commission has shifted the expense from additional Capital expenditure to the R&M as the expense was of R&M nature.

Further, the Commission has observed that the Petitioner in additional capitalisation for FY 2017-18 has included the expenses of R&M nature in additional capitalisation in other Plants as well, the details of all such expenses amounting to Rs. 35.79 Crore provided at **Annexure 5** of this Order. The Commission has accordingly, deducted expenses of R&M nature from the additional capitalization and considered the same under R&M expense, the Plant-wise details are as per Table below:

Table 4.14: Expenses of R&M Nature but included under Additional Capitalization for 9 LHPs during FY 2017-18 (Rs. Crore)

Generating Station	Expenses of R&M Nature but included in Additional Capitalization
Dhakrani	0.00
Dhalipur	3.94
Chibro	8.09
Khodri	9.77
Kulhal	3.69
Ramganga	6.13
Chilla	4.17
MB-I	0.00
Khatima	0.00
Total	**35.79**

The Commission has further observed that in case of Ramganga LHP, the Petitioner has wrongly claimed the values of Rs. 3.97 crore for under water parts investigation under Office Equipment in additional capitalization for FY 2017-18. The Commission has asked UJVN Ltd. to rectify the same. The Petitioner in response has submitted that the amount of Rs. 3.97 Crore has been booked under office equipment inadvertently and the same should be booked under Plant and Machinery. The Petitioner further requested the Hon'ble Commission to kindly condone the error and requests the Commission to kindly consider the amount of Rs. 3.97 Crore against the Plant & Machinery. The Commission has considered the submission of the Petitioner and has shifted the expenditure booked under office equipment to Plant and Machinery head of the station.

With regard to Khatima HEP, the Petitioner has claimed an amount of Rs. 3.94 Crore towards the IDC of Khatima RMU during FY 2017-18, the Commission vide its letter dated 09.01.2019 has asked the Petitioner to submit the detailed calculation for the same. In response, the Petitioner vide its reply dated 25.01.2019 has submitted that during FY 2017-18 a total amount of Rs. 14.55 Crore were debited to P&L account on account of interest on loan taken from PFC for construction of RMU works. The Petitioner further submitted that while finalizing the balance sheet for FY 2017-18, in order to correct the interest expense and to correct interest expense wrongly capitalized, an amount of Rs. 3.98 Crore on account of interest for RMU loan was transferred from CWIP to P&L account. After corrective entry the interest expense chargeable to P&L account is matched. The Petitioner further submitted that according to the latest detail of additions of fixed assets received from concerned accounting unit, it is observed that interest so transferred from CWIP to P&L Account was wrongly transferred and which requires to be transferred from fixed assets. The Petitioner further submitted that rectification entry to transfer from fixed assets head to CWIP of Rs. 3.98 Crore will be done in FY 2018-19.

The Commission has gone through the submission of the Petitioner and is of the view that the Petitioner has wrongly booked the amount of Rs. 3.94 Crore towards the IDC of Khatima RMU. In view of the above the Commission has disallowed the same.

The Commission also observed that UJVN Ltd. has claimed a De-capitalization of Rs. 2.5 Crore in during FY 2017-18 in Khatima HEP. In response to query raised about the details of same, the Petitioner vide its reply dated 18.01.2019 has submitted that the Petitioner has received the income received from Scrap of Rs. 3.35 Crore against Order no. 357 dated 24.06.2017 for Khatima HEP. Against the same, amount of Rs. 2.65 Crore has been De-capitalized and Rs. 0.51 Crore has been transferred to P&L account as other income and Rs. 0.19 Crore were paid as statutory dues in FY 2017-18.

The Petitioner further submitted that the Commission has already considered (in advance) the income received from aforesaid sale of scrap in True Up of FY 2016-17 in Tariff Order dated 21.03.2018 as non-tariff income. Therefore, the Petitioner requested the Commission that the impact of Rs. 3.35 Crore against the scrap sale for FY 2017-18 may kindly be ignored in the True Up of FY 2017-18 as the impact of the same has already been considered by the Commission in non-Tariff income of FY 2016-17.

The Commission in this regard, has considered the submission of the Petitioner and is of the view that an amount of Rs. 3.35 Crore was already deducted by the Commission during FY 2016-17 as Non-Tariff income submitted by the Petitioner. The Commission now in order to nullify this effect, has considered de-capitalization of Rs. 2.65 Crore from Khatima HEP and the same has been allowed on the AFC of Khatima LHP as prior period expense.

The Commission, accordingly, approves an additional capitalisation for FY 2017-18 for 9 LHPs as shown below:

Table 4.15: Additional Capitalisation approved for 9 LHPs for FY 2017-18

Generating Station	Claimed	Approved
Dhakrani	2.92	1.86
Dhalipur	21.19	4.48
Chibro	14.21	5.79
Khodri	12.75	2.82
Kulhal	8.66	2.54
Ramganga	27.91	21.78
Chilla	21.83	5.05
MB-I	1.21	1.21
Khatima	13.37	9.43
Total	**124.06**	**54.97**

B. Maneri Bhali-II

In addition to the Capital Cost of Rs. 1885.50 Crore as on 15.03.2008, the Commission had approved the additional capitalization from FY 2007-08 to FY 2016-17 amounting to Rs. 314.51 Crore in its previous Tariff Orders as shown in the Table below:

Table 4.16: Year-wise Additional Capitalisation already approved by the Commission from FY 2007-08 to FY 2016-17 for MB-II LHP (Rs. Crore)

Financial Year	Approved including de-capitalization
2007-08	0.09
2008-09	10.26
2009-10	8.14
2010-11	21.70
2011-12	2.01
2012-13	17.90
2013-14	35.32
2014-15	36.77
2015-16	127.24
2016-17	55.08
Total	**314.51**

Based on the above closing GFA approved for FY 2016-17, the opening GFA for FY 2017-18 for MB-II LHP is presented below:

Table 4.17: Opening GFA for MB-II as considered by the Commission for FY 2017-18 (Rs. Crore)

Particulars	Amount
Capital Cost	1885.50
Additional Capitalization from FY 2007-08 to FY 2016-17	314.51
Opening GFA for FY 2017-18	**2200.01**

The Petitioner for MB-II LHP has claimed additional capitalization for FY 2017-18 as given in Table below:

Table 4.18: Additional Capitalisation claimed by the Petitioner for FY 2017-18 (Rs. Crore)

Components	Additional Capitalisation	De-capitalisation	Net Additional Capitalisation
Land	0.00	0.00	0.00
Building	2.50	0.00	2.50
Hydraulic works	**10.42**	0.00	10.42
Major Civil Works	2.88	0.00	2.88
Plant & Machinery	1.70	0.00	1.70
Vehicles	0.00	0.04	(0.04)
Furniture and Fixtures	0.02	0.00	0.02
Office Equipment & Others	0.16	0.00	0.16
Total	**17.69**	**0.04**	**17.65**

It is observed that the Commission in its Order dated 29.03.2017 had not considered any additional capitalisation for FY 2017-18, stating that the same is to be considered at the time of truing up of tariff. UJVN Ltd. in this instant Petition has claimed additional capitalisation of Rs. 17.65 Crore for FY 2017-18. The Commission in its preliminary data gaps dated 06.12.2018 has asked the Petitioner to submit the details of Balance Capital works and other works in MB-II stations. UJVN Ltd. in its reply dated 28.12.2018 has submitted that there was an additional capitalization of Rs. 17.35 Crore (excluding impact of apportionment) in FY 2017-18 in MB-II HEP. The Petitioner further submitted that additional capital expenditure of Rs. 36.95 which was already booked in previous financial years was shifted to deposit works in FY 2017-18 (on receipt of funds from GoU towards restoration of damage caused due to Natural Calamity) and the corresponding works were de-capitalised from the books of account. Therefore, as per books of accounts negative additional capitalization of Rs. 19.30 Crore (including impact of apportionment) is shown in FY 2017-18. The Petitioner further submitted that the amount of Rs. 40.37 Crore has already been considered as Grant by the Commission in True Up year FY 2015-16 vide Tariff Order dated 29.03.2017 for which a directive (para 5.7.1.) was also issued for receiving of funds against restoration of works.

The Commission with regard to de-capitalisation of assets observes that the Commission in its

Order dated 29.03.2017 has considered the same to be funded through grant and therefore the Commission has not again deducted the above de-capitalisation from the additional capitalisation claimed as the same shall lead to double accounting.

The Commission further sought detailed breakup of the Balance capitalisation and additional capitalisation allowed and actually incurred till date and that projected till FY 2018-19. The same was submitted by UJVN Ltd. Further, the Commission sought sub-head-wise details of expenses incurred or proposed to be incurred on works covered under Balance Capital Petition for MB-II. In response, the Petitioner has submitted the sub-head-wise details of expenses for works covered under Balance Capital Petition as given in **Annexure 6** of this Order.

The Commission had observed that UJVN Ltd. with regard to MB-II has claimed balance capital works of Rs. 234.61 Crore (Rs. 217.05 Crore of Balance Capital works + Rs. 17.56 Crore against provisionally allowed IDC in Tariff Order dated 21.03.2018) till FY 2016-17 as against Rs. 211.72 Crore approved in the Tariff Order dated 05.04.2016. The Petitioner further in the instant Petition has claimed a total additional Capital Expenditure amounting to Rs. 243.57 Crore till FY 2017-18 including provisionally approved IDC of Rs.17.56 Crore.

The Petitioner in the current Tariff Petition has again revised the projection to Rs. 259.67 Crore till FY 2018-19 against balance capital works of MB-II. The Commission has observed that the Petitioner has incurred Rs. 234.61 Crore including IDC of Rs. 17.56 Crore (provisionally allowed in Tariff Order dated 21.03.2018) upto FY 2016-17 and has incurred a net additional capitalization under balance capital works of Rs. 8.96 Crore in FY 2017-18 (after deducting Rs. 8.70 Crore against the additional capital works) towards balance capital works.

In this regard, the Commission is of the view that the Petitioner is adopting a callous approach and is deferring important works like testing of surge shaft gate, which is certainly not in the interest of UJVN Ltd. **Therefore, the Commission again directs the Petitioner to complete all the works covered in the Petition of balance capital works of MB-II HEP latest by 31.03.2019, beyond which no expense (including IDC) in this regard would be allowed.**

Further, the Commission sought detailed breakup of other additional capitalisation for FY 2017-18 for MB-II from UJVN Ltd., which was submitted by UJVN Ltd.

The Commission observed that the Petitioner had claimed an expense of Rs. 0.64 Crore on account of Current Transformer and Voltage transformer which are procured to replace when required for 220 kV sub-station. The Petitioner has itself stated that the equipment are procured but are not put to use. The Commission, therefore, considering the submission of the Petitioner has disallowed the additional capital expenditure for procuring of current transformer and voltage transformer. Besides above, an expense of Rs. 8.70 Crore against other additional capital works have been considered by the Commission.

The Commission has, accordingly, approved the capitalisation of balance capital works and other additional capitalisation for FY 2017-18 for MB-II LHP as submitted below:

Table 4.19: Asset-wise Additional Capitalization approved by the Commission for FY 2017-18 for MB-II (Rs. Crore)

Particulars of Assets	Approved in Order dated 29.03.2017 for FY 2017-18	Approved now after Truing-up for FY 2017-18	
		Net Additional Capitalization Claimed	Net Additional Capitalization Approved
Land	0.00	0.00	0.00
Building	0.00	2.50	2.50
Hydraulic works	0.00	10.42	10.42
Major Civil Works	0.00	2.88	2.88
Plant & Machinery	0.00	1.70	1.05
Vehicles	0.00	(0.04)	(0.04)
Furniture and Fixtures	0.00	0.02	0.02
Office Equipment & Other Items	0.00	0.16	0.16
Total	**0.00**	**17.65**	**17.00**

4.1.2.4 *Depreciation*

A. Old Nine Generating Stations

Regulation 28 of the UERC Tariff Regulations, 2015 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.

…"

The Petitioner has submitted that while computing the depreciation, it has considered 90% of the opening GFA as the permissible limit. Accordingly, for the plants where accumulated depreciation on the approved opening GFA has already reached 90%, such as Dhakrani, Dhalipur, Chibro, Khodri, Kulhal, Ramganga, Chilla and Khatima, the Petitioner has not claimed any depreciation. The Petitioner has claimed depreciation on the opening GFA only for remaining one plant i.e. Maneri Bhali-I.

The Petitioner submitted that it has computed depreciation on the basis of rates considered by the Commission in its previous Tariff Orders. UJVN Ltd. submitted that it has considered depreciation till FY 2012-13 at the rate of 2.38% on the opening GFA. Thereafter, the Petitioner has spread the remaining depreciable value over the balance useful life. With regard to the depreciation on additional capitalization, the Petitioner has computed depreciation for different class of assets in accordance with the rates specified in UERC Tariff Regulations, 2004 till FY 2012-13, UERC Tariff Regulations, 2011 from 01.04.2013 till 31.3.2016 and UERC Tariff Regulations, 2015 as applicable for relevant years.

With regard to the opening GFA as on January, 2000, the Commission has computed depreciation in accordance with the UERC Tariff Regulations, 2015. All the 9 LHPs are over 12 years old and 7 out of 9 stations have depreciated by 90% of the original cost as on 31.03.2017.As per the Commission's computation, depreciation allowed for Khodri and MB-I LHPs have not reached 90% till FY 2017-18, and hence, the Commission has computed the accumulated depreciation on opening GFA till 01.04.2016 to determine the remaining depreciable value for each LHP. The Commission for computing the accumulated depreciation has considered the depreciation rate of 2.38% as considered in previous Tariff Orders. Further, in accordance with UERC Tariff Regulations, 2011 & UERC Tariff Regulations, 2015 and considering the life of 35 years from the CoD, the Commission has equally divided the remaining depreciable value as on 01.04.2016 on the remaining useful life of each LHP.

As regards the depreciation computation on the asset added during the period from FY 2001-02 to FY 2016-17, the Commission has computed the depreciation in accordance with the provisions of UERC Tariff Regulations, 2011 and UERC Tariff Regulations, 2015. The Commission has computed the balance depreciable value for assets added in each year after January, 2000 by deducting the cumulative depreciation as admitted by the Commission upto 31.03.2016 from the gross depreciable value of the assets. The Commission, further, computed the difference between the cumulative depreciation as on 31.03.2016 and the depreciation so arrived and in case, where asset life has crossed 12 years of such asset addition, the remaining depreciable value as on 31st March of the year has been spread over the balance life.

As regards the depreciation computation, the Commission has computed the depreciation on the opening GFA by applying the depreciation rates as specified in UERC Tariff Regulations, 2015. Based on the above discussed approach, the summary of depreciation as approved in Order dated 29.03.2017 and as approved now by the Commission for FY 2017-18 after truing-up is shown in the Table given below:

Table 4.20: Depreciation approved for 9 LHPs after truing-up of FY 2017-18 (Rs. Crore)

Generating Station	On Opening GFA as on 14.01.2000		On Additional Capitalisation upto FY 2016-17		Total Depreciation		
	Approved in T.O. dt. 29.03.2017 for FY 2017-18	Approved now after Truing-up for FY 2017-18	Approved in T.O. dt. 29.03.2017 for FY 2017-18	Approved now after Truing-up for FY 2017-18	Approved in T.O. dt. 29.03.2017 for FY 2017-18	Claimed by the Petitioner in FY 2017-18	Approved now after Truing-up for FY 2017-18
Dhakrani	0.00	0.00	0.62	0.38	0.62	0.36	0.38
Dhalipur	0.00	0.00	1.53	0.33	1.53	0.34	0.33
Chibro	0.00	0.00	1.64	1.67	1.64	1.69	1.67
Khodri	0.59	0.59	0.85	1.14	1.44	1.72	1.73
Kulhal	0.00	0.00	0.70	0.22	0.70	0.23	0.22
Ramganga	0.00	0.00	0.28	0.34	0.28	0.34	0.34
Chilla	0.00	0.00	1.89	1.04	1.89	1.07	1.04
MB-I	2.53	2.53	3.93	1.59	6.46	4.64	4.17
Khatima	0.00	0.00	7.08	7.54	7.08	7.58	7.54
Total	**3.12**	**3.12**	**18.51**	**14.24**	**21.63**	**17.98**	**17.41**

B. Maneri Bhali-II

As discussed earlier, the Commission has worked out the additional capitalization for FY 2017-18 for MB-II Plant. Accordingly, the Commission has computed the depreciation considering the Capital Cost approved as on CoD of the Project and year-wise additional capitalisation approved by the Commission.

The Commission for computing the depreciation for FY 2017-18 in accordance with the UERC Tariff Regulations, 2015 has computed the balance depreciable value for MB-II by deducting the cumulative depreciation as admitted by the Commission upto 31.03.2017 from the gross depreciable value of the assets. The Commission, further, computed the difference between the cumulative depreciation as on 31.03.2017 and the depreciation so arrived at by applying the depreciation rates as specified in UERC Tariff Regulations, 2015 corresponding to 12 years. The Commission has spread the above difference in the remaining period upto 12 years from CoD of MB-II.

In line with the above approach, the Commission has computed the depreciation for FY 2017-18 for MB-II on the approved capital cost as on CoD of Rs. 1885.50 Crore along with additional capitalisation approved upto FY 2016-17 of Rs. 314.51 Crore. Accordingly, the Commission in this Order has Trued Up the depreciation for FY 2017-18 as follows:

Table 4.21: Revised Depreciation for MB-II for FY 2017-18 (Rs. Crore)

Particulars	Approved in T.O. dated 29.03.2017 for FY 2017-18	Claimed	Approved now after truing up
FY 2017-18	60.51	74.03	62.99

4.1.2.5 ***Return on Equity (RoE)***

A. Old Nine Generating Stations

Regulation 26 of the UERC Tariff Regulations, 2015 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.

(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.

..."

In the previous Tariff Orders, pending finalisation of the Transfer Scheme of the Petitioner, the Commission had allowed RoE on the provisional value of the opening equity of Rs. 151.19 Crore in accordance with the directions of the Hon'ble Appellate Tribunal for Electricity issued in the Order dated 14.09.2006 (Appeal No. 189 of 2005), and detailed in the Commission's Order dated 14.03.2007. As regards RoE on additional Capitalisation, the Commission has considered a normative equity of 30% where entire financing has been done through internal resources and on actual basis in other cases subject to a ceiling of 30% as specified in the UERC Tariff Regulations, 2015.

Further, a de-capitalisation of Rs. 2.03 Crore in the year FY 2014- 15 in Khatima LHP was considered, accordingly, the same was deducted from the original GFA resulting in reduction in the Original capital cost as on 01.04.2015. Due to de-capitalisation, the Commission has reduced the 30% of equity of the de-capitalised amount from the equity infused in the original capital cost and has thus computed RoE on Rs. 150.58 Crore instead of the earlier amount of Rs. 151.19 Crore.

The Petitioner has submitted that it has claimed RoE in accordance with the aforesaid UERC Tariff Regulations, 2015 at the rate of 16.50% for Chibro, Khodri, Ramganga & MB-I and at the rate of 15.50% for Dhakrani, Dhalipur, Kulhal, Chilla & Khatima on post tax basis. The Petitioner further submitted that it may be allowed to recover Income Tax of Rs. 9.78 Crore for its 10 LHPs including MB-II in respect of sale of energy to UPCL, as per Regulations 34 of UERC Tariff Regulations, 2015 which stipulates 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."

In this regard, the Petitioner has submitted the copy of certificates issued by the Chartered Accountant, M/s DMA & Associates certifying that the Petitioner has paid Rs. 7.16 Crore as income tax in respect of sale of energy to Uttarakhand Power Corporation Ltd. and Himachal Pradesh State Electricity Board as given below:

Table 4.22: Income Tax as claimed by the Petitioner for 9 LHPs (Rs. Crore)

Generating Station	Income Tax in respect of sale of energy to UPCL	Income Tax in respect of sale of energy to HPSEB	Total Income Tax
Dhakrani	0.22	0.07	0.29
Dhalipur	0.33	0.11	0.44
Chibro	1.55	0.52	2.07
Khodri	0.77	0.26	1.03
Kulhal	0.20	0.05	0.26
Ramganga	1.70	-	1.70
Chilla	1.24	-	1.24
MB-I	0.78	-	0.78
Khatima	0.36	-	0.36
Total	**7.16**	**1.01**	**8.17**

The Commission has allowed RoE at the rate of 16.50% for Chibro, Khodri, Ramganga & MB-I and at the rate of 15.50% for Dhakrani, Dhalipur, Kulhal, Chilla & Khatima as per Regulation 26 of UERC Tariff Regulations, 2015. Further, with regard to recovery of income tax paid, the Commission is of the view that the Regulation 34 of UERC Tariff Regulations, 2015 allows recovery of actual tax paid subject to submission of documentary proof. Therefore, the Commission has allowed the Petitioner to recover actual paid income tax separately from its beneficiaries in accordance with the Regulation 34 of the UERC Tariff Regulations, 2015.

As the Transfer Scheme is yet to be finalized, the Commission is provisionally allowing a return on normative equity at the rate of 16.50% for Chibro, Khodri, Ramganga & MB-I and at the rate of 15.50% for Dhakrani, Dhalipur, Kulhal, Chilla & Khatima in accordance with the provisions of UERC Tariff Regulations, 2015. The summary of the Return on Equity approved for 9 LHPs for FY 2017-18 is shown in the Table given below:

Table 4.23: Equity and Return on Equity for Nine Old LHPs for FY 2017-18 (Rs. Crore)

Generating Station	RoE approved in T.O. dated 29.03.2017 for FY 2017-18			Claimed by the Petitioner		Approved now after truing up for FY 2017-18				
	On Transferred Asset	On Additional Capitalisation	RoE	Opening Equity	RoE	On Transferred Asset as on Jan 14, 2000		On Additional Capitalisation upto FY 2016-17		Total RoE
						Normative Equity	RoE	Opening Equity	RoE	
Dhakrani	0.58	0.59	1.17	5.64	0.87	3.72	0.58	1.92	0.30	0.87
Dhalipur	0.95	1.53	2.48	7.70	1.19	6.11	0.95	1.59	0.25	1.19
Chibro	4.35	1.56	5.92	35.80	5.91	26.37	4.35	9.25	1.53	5.88
Khodri	3.66	0.76	4.42	28.30	4.67	22.19	3.66	6.03	0.99	4.66
Kulhal	0.81	0.69	1.51	6.32	0.98	5.25	0.81	1.07	0.17	0.98
Ramganga	2.48	0.28	2.76	16.99	2.80	15.01	2.48	1.99	0.33	2.80
Chilla	5.81	1.88	7.69	43.96	6.81	37.47	5.81	11.35	1.76	7.57
MB-I	5.43	4.31	9.74	47.16	7.31	32.92	5.43	10.32	1.70	7.13
Khatima	0.24	7.33	7.57	45.18	7.00	1.55	0.24	43.02	6.67	7.00
Total	**24.30**	**18.94**	**43.24**	**237.05**	36.68	**150.58**	**24.30**	**86.55**	**13.69**	**38.09**

B. Maneri Bhali-II

As discussed earlier, the Commission has considered the Capital cost of MB-II project as on CoD as Rs. 1885.50 Crore as approved by the Commission in Order dated 05.04.2016 and accordingly, the financing of the project. The relevant para of the Tariff Order dated 05.04.2016 with respect to financing of the capital cost is as extracted below:

"As discussed earlier, the Commission has approved the Capital cost of MB-II project as on COD and, accordingly, the financing of the project. The Commission has reworked the total equity component as on COD to Rs. 685.50 Crore. In accordance with the Tariff Regulations, equity in excess of 30% has to be treated as normative loan. Accordingly, the equity for MB-II LHP as on COD works out to Rs. 565.65 Crore which includes pre-2002 expenses of Rs. 164 Crore, power development fund of Rs. 326.76 Crore and GoU budgetary support of Rs. 74.89 Crore and the balance amount of Rs. 119.85 Crore has been considered as normative loan."

Further, as discussed in Tariff Order dated 29.03.2017, the Commission has considered the funding of the additional capitalisation of Rs. 40.37 Crore for FY 2015-16 through grant and the same has been continued in FY 2016-17 as the Petitioner has already recovered some amount in this regard from GoU. Further, the Commission is of the view that in the further tariff proceedings the Petitioner should provide the details of works undertaken by the approved grant.

Further, as decided in the Tariff Order dated 29.03.2017, the Commission has considered equity infusion from FY 2013-14 onwards subject to ceiling limit of 30% towards funding of additional capitalisation as extracted below:

"With regards to funding of additional capitalisation, the Commission directed the Petitioner to submit the proof of actual equity infused towards additional capitalisation. The Petitioner in its reply submitted that it received GoU budgetary support of Rs. 25.56 Crore in FY 2013-14 through three separate sanctions. The Petitioner submitted the required documentary proof for the same. The Commission has, accordingly, considered equity infusion from FY 2013-14 subject to ceiling limit of 30% towards funding of additional capitalisation."

The Commission has not been allowing Return on Equity on funds deployed by the GoU out of PDF fund for reasons recorded in the previous Tariff Orders. In line with the approach considered in previous Tariff Orders, the Commission is of the view that unlike other funds, available with the Government collected, through taxes and duties, PDF is a dedicated fund created in accordance with the provisions of the PDF Act passed by the GoU and the amount is collected directly from the consumers through the electricity bills as the same forms part of the power purchase cost of UPCL which in turn is loaded on to the consumers. PDF Act and Rules made thereunder, further, clearly indicate that money available in this fund has to be utilized for the purposes of development of generation and transmission assets.

Thus, the Commission has not deviated from its earlier approach and is of the view that the money for the purpose of this fund is collected by the State Government through cess imposed on the electricity generated from old hydro generating stations which are more than 10 years old. The cost of such cess is further passed on to UPCL which in turn recovers the same from ultimate consumers of electricity through tariffs. Further, as the Petitioner in this regard has preferred an Appeal before the Hon'ble APTEL, the Commission is not deviating from its approach as the matter is sub-judice.

The Petitioner has further submitted that it may be allowed to recover Income Tax of Rs. 2.62 Crore as per Regulations 34 of UERC Tariff Regulations, 2015. It has submitted the copy of certificate issued by the Chartered Accountant, M/s DMA & Associates certifying that the Petitioner has paid the Rs. 2.62 Crore as income tax in respect of sale of energy to Uttarakhand Power Corporation Ltd. As discussed above in this regard, the Commission has allowed the Petitioner to recover actual paid income tax separately from its beneficiaries in accordance with the Regulation 34 of the UERC Tariff Regulations, 2015.

The Commission on account of the financing of the project additional capitalisation for FY 2016-17 has revised the RoE allowed for FY 2017-18 as shown below:

Table 4.24: RoE approved for MB-II for FY 2017-18 (Rs. Crore)

Particulars	Approved in MYT Order for FY 2017-18 dated 29.03.2017	Claimed	Approved now after truing up
FY 2017-18	47.32	110.79	48.92

4.1.2.6 ***Interest on Loans***

A. Old Nine Generating Stations

Regulation 27 of the UERC Tariff Regulations, 2015 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 1.4.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2016 from the 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:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the generating station or the transmission system or the distribution system or SLDC, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the Transmission Licensee or the Distribution Licensee or SLDC as a whole shall be considered.

(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 Petitioner submitted that as per the provisions of Regulation 24 of UERC Tariff Regulations, 2015, interest on normative debt has been considered on the value equivalent to 70% of additional capitalisation only.

Further, the Petitioner submitted that the rate of interest has been considered as the weighted average rate of interest for FY 2017-18 and the repayment has been considered as equal to the depreciation claimed for the year. Further, the Commission sought details of quarter-wise actual loan repayment, interest paid towards existing loans along with interest refund received for FY 2017-18 for the 10 LHPs and the same was submitted by the Petitioner.

For the purpose of truing-up and computing the interest expenses for FY 2017-18, the

Commission has determined the normative loan in accordance with the UERC Tariff Regulations, 2015. The Commission, in accordance with UERC Tariff Regulations, 2015 has computed the weighted average interest rate based on the outstanding loans for UJVN Ltd. except for loans taken for new projects that are yet to achieve CoD. The interest rate based on the above works out to 10.77% in case of Khatima LHP and 10.69% for other 8 LHPs. The Commission has, accordingly, considered the above mentioned interest rates for computing the interest expenses for 9 LHPs.

Based on the above considerations, the Commission has approved interest on loan based on the average of opening and closing loans for 9 LHPs for FY 2017-18 after excluding the loan corresponding to Additional Capitalisation during the year as the practice of the Petitioner is to capitalise the assets at the end of the year. The same is shown in Table below:

Table 4.25: Interest on Loan as approved for 9LHPs for FY 2017-18 (Rs. Crore)

Generating Station	Approved in MYT Order dt. 29.03.2017	Interest Claimed	Interest Approved
Dhakrani	0.82	0.80	0.29
Dhalipur	1.93	2.22	0.03
Chibro	1.68	1.60	1.46
Khodri	0.20	0.18	0.53
Kulhal	1.02	1.00	0.10
Ramganga	0.12	0.11	0.18
Chilla	1.81	1.77	1.58
MB-I	4.46	4.36	0.21
Khatima	11.85	11.48	10.11
Total	**23.91**	**23.52**	**14.48**

The above variation in interest on loan is primarily on account of True Up of additional capitalization for FY 2016-17 i.e. Rs. 90.43 Crore for 9 LHPs in Tariff Order dated 21.03.2018, which was provisionally considered as Rs. 213.32 Crore for 9 LHPs in Tariff Order dated 29.03.2017 and change in rate of interest from 11.84% to 10.69%.

B. Maneri Bhali-II

The Commission has considered the Capital Cost of Maneri Bhali-II as on CoD and the financing thereof as approved in Tariff Order dated 21.03.2018. The Commission has considered the equity in excess of 30% of the capital cost of MB-II as normative loan which works out to Rs. 119.85 Crore in addition to PFC loan of Rs. 1200 Crore.

Further, the Commission sought details of interest refund/rebate received on loans pertaining to MB-II LHP for FY 2017-18 and the same was submitted by UJVN Ltd.

In case of MB-II station as the actual loans have been availed for the project, therefore, the interest has been computed on the basis of these loans availed for the project. For calculating the interest expense for FY 2017-18, the Commission has considered the interest rate of 10.67% for MB-II LHP based on the weighted average of loans available for MB-II LHP. The Commission has adjusted the yearly interest refunds received by the Petitioner as done previously in the Order dated 21.03.2018. As discussed above, the Commission has computed the weighted average interest rate of 10.67% based on the outstanding PFC loans and GoU loans. The Commission for computing interest for MB-II station for FY 2017-18 has considered the above mentioned interest rate.

The Commission based on the approved capital cost and the opening and closing loan including the normative loan for MB-II as on 31.03.2018 has computed the interest expenses for FY 2017-18 after excluding the loan corresponding to the additional capitalisation during the year as the practice of the Petitioner is to capitalise the asset at the end of the year. The Commission, in accordance with Regulation 27(3) of UERC Tariff Regulations, 2015 has considered the repayment for FY 2017-18 equal to the depreciation allowed for that year.

Based on the above considerations and the UERC Tariff Regulations, 2015, the Commission has calculated the interest expenses for MB-II for FY 2017-18 as shown in the Table below:

Table 4.26: Interest on Loan as approved for MB-II for FY 2017-18 (Rs. Crore)

Particulars	Approved in MYT Order for FY 2017-18 dated 29.03.2017	Claimed	Approved now after truing up
FY 2017-18	87.48	79.57	75.47

4.1.2.7 ***Operation & Maintenance (O&M) Expenses***

4.1.2.7.1 Truing up of O&M Expenses for FY 2017-18 (Nine Large Generating Stations)

The Petitioner submitted that O&M expenses for FY 2017-18 have been considered as per the audited accounts. The components of total O&M expenses have been bifurcated into direct and indirect expenses. Direct expenses have been allocated to respective hydro power project for which corresponding expenses have been incurred. The Petitioner has allocated indirect expenses as already detailed earlier in this Order. The Commission, in this regard, has also taken a similar view on the approach of allocating indirect expenses.

The Petitioner further submitted that the Commission vide its Order dated 05.04.2016 had included the impact of VII Pay Commission in the Employee expense for the Second Control Period from FY 2016-17 to FY 2018-19. However, the Commission in its Tariff Order dated 21.03.2018 stated as follows:

"The Commission would carry out the truing-up for FY 2017-18 & FY 2018-19 on actual impact of VII Pay Commission including arrears and no sharing of gains and losses on this account would be allowed".

Accordingly, the arrears on account of recommendations of VII Pay Commission are added in the allowable overall O&M cost after True Up, so that the actual impact of VII Pay Commission is reflected and no sharing of gains and losses on this account is allowed.

The Petitioner has submitted the actual O&M expenses on the basis of audited accounts for FY 2017-18. Further, the Petitioner has submitted the separate details of employee, R&M and A&G expenses.

The Commission has considered the revision in CPI Inflation and WPI Inflation on the basis of actual data and has computed the O&M expenses on the basis of Regulation 48(2) of UERC Tariff Regulations, 2015. Accordingly, for arriving at the normative O&M expenses for FY 2017-18, the Commission has escalated the expenses of FY 2016-17. The Commission for the purpose of escalation has considered following escalation rates.

Table 4.27: Escalation Rates as considered by the Commission for FY 2017-18

Particulars	FY 2017-18
CPI Inflation	5.12%
WPI Inflation	0.00%

Further, for the purpose of arriving at employee expenses for FY 2017-18, the Commission has considered the value of Growth Factor 'Gn' on the basis of actual details of recruitment provided by UJVN Ltd. Further, the Commission has considered the K factor as approved in the Order dated 21.03.2018 while truing up for FY 2016-17.

4.1.2.7.1.1 Employee Cost

The Commission has considered the same approach for computation of employee expenses for FY 2017-18 as considered by it in Tariff Order dated 29.03.2017. The Commission sought for actual number of employees recruited/retired in FY 2017-18 and the same was submitted by the Petitioner. Growth Factor 'Gn' as considered by the Commission is as given below:

Table 4.28: Growth Factor 'Gn' considered for FY 2017-18

Particulars	FY 2017-18
Gn	0.00%

In its MYT Order dated 05.04.2016, the Commission had considered the impact of VII Pay Commission at the rate of 20% of the approved net employee expenses and had allowed certain provision to the Petitioner for FY 2016-17 to FY 2018-19. Thereafter, on the basis of the details of the impact of VII Pay Commission submitted by the Petitioner, the Commission in its Tariff Order dated 29.03.2017 had revised the impact of pay revision to 15% as against 20% approved by the Commission in its MYT Order dated 05.04.2016 and 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 Commission further observes that the Petitioner has claimed the impact of VII Pay Commission arrears in its True Up Petition. In this regard, the Commission vide its letter dated 18.12.2018 has sought details regarding the arrear paid by the Petitioner to its Employees on account of VII Pay Commission in FY 2017-18 and FY 2018-19 duly reconciled with the Audited Balance Sheet. The Petitioner vide its reply dated 28.12.2018 has submitted the details of Arrear paid by UJVN Ltd. to its employees. The Petitioner in this regard, has submitted the plant wise actual arrears paid to its employees during FY 2017-18 duly reconciled with its Audited Balance sheet and has also submitted the details of arrear paid in FY 2018-19 (Upto June, 2018). Based on the above information, the Commission in this order has considered the arrears paid on account of VII Pay Commission.

Further, during the TVS session held at the Commission's office on 08.01.2019, the Commission has asked the Petitioner to submit the actual employee expenses excluding arrears along with sub-head wise break up for the period of April-September 2017 and April-September 2018. The Petitioner has incurred Rs. 20.76 Crore towards basic salary and Rs. 27.94 Crore towards DA from April 2017-to September 2017 for 9 LHPs. Further, the Petitioner has incurred Rs. 47.47 Crore towards basic salary during April 2018 to September 2018 and Rs. 5.30 Crore towards dearness allowance for 9 LHPs. The VII Pay Commission was implemented w.e.f. January 1, 2016 and the salaries were raised to the level of VII Pay Commission w.e.f. December 1, 2017. The Commission has considered the impact of VII Pay Commission of Rs. 4.08 Crore for 9 LHPs claimed by the Petitioner and has allowed the same on actual basis and no sharing of gain and losses on this account has been allowed.

In view of above, the Commission has approved the employee expenses for FY 2017-18 as shown in the Table below:

Table 4.29: Employee Expenses approved for FY 2017-18 (Rs. Crore)

Generating Station	Approved in T.O. dated 29.03.2017	Claimed	Approved now after Truing-up as per norms
Dhakrani	10.11	11.45	8.81
Dhalipur	15.26	11.10	13.29
Chibro	42.19	40.08	37.79
Khodri	23.30	22.05	20.42
Kulhal	8.99	7.82	7.83
Ramganga	28.31	29.23	25.42
Chilla	30.83	30.32	27.16
MB-I	22.54	23.14	19.65
Khatima	12.53	11.82	10.92
Total	**194.06**	**187.01**	**171.29**

The employee expenses approved by the Commission for 9 LHPs in this Tariff Order is less than that approved in the Tariff Order dated 29.03.2017 on account of change in Growth Factor and CPI escalation indices.

4.1.2.7.1.2 Repairs and Maintenance Expenses

The Commission in its MYT Order dated 05.04.2016 has computed the percentage of actual R&M expenses vis-a-vis actual opening GFA for each year of FY 2012-13 to FY 2014-15. Thereafter, the Commission had considered the average of such percentages as K factor. The Commission had considered the constant factor 'K' as follows:

Table 4.30: K-Factor as considered by the Commission

Station	Average of 3 years
Dhakrani	30.84%
Dhalipur	16.06%
Chibro	8.12%
Khodri	3.65%
Kulhal	10.47%
Ramganga	2.70%
Chilla	7.74%
MB-I	7.84%
Khatima	21.75%
Total	8.00%

For computing the R&M expenses for FY 2017-18, the Commission has multiplied the K Factor as given above with the opening GFA approved for FY 2017-18. In accordance with the UERC Tariff Regulations, 2015, the K factor is determined by the Commission in the MYT Order and would remain constant for the entire Control Period. Therefore, the K factor for FY 2017-18 cannot be revised in the final True Up. The Commission has revised the WPI Inflation for FY 2017-18 based on the WPI Indices for the preceding three years and, accordingly, approved the WPI Inflation of 0% for FY 2017-18.

With regards to the generating station undergoing RMU works or planned for RMU works in the Second Control Period, Regulation 48(2) of UERC Tariff Regulations, 2015 specifies that for projects whose Renovation and Modernisation works has been carried out, the R&M expenses for the n^{th} year shall not exceed 2% of the capital cost admitted by the Commission. Accordingly, as the RMU works for Khatima LHP has been completed in FY 2016-17, the Commission has considered allowable R&M Expenses for FY 2017-18 on the opening GFA of FY 2017-18.

Accordingly, the Commission has approved the R&M expenses for FY 2017-18 as shown in the Table below:

Table 4.31: R&M Expenses approved for FY 2017-18 (Rs. Crore)

Generating Station	T.O. dated 29.03.2017 for FY 2017-18	Claimed	Approved now after Truing up as per norms for FY 2017-18
Dhakrani	7.88	8.88	5.80
Dhalipur	8.71	5.40	4.12
Chibro	9.93	9.66	9.69
Khodri	3.33	5.60	3.44
Kulhal	3.45	4.64	2.21
Ramganga	1.53	4.45	1.53
Chilla	13.06	13.77	11.35
MB-I	15.90	14.36	11.58
Khatima	3.31	2.49	3.01
Total	**67.11**	**69.26**	**52.73**

The R&M expenses approved by the Commission for 9 LHPs in this Tariff Order has decreased on account of truing up of FY 2016-17 resulting in decrease in opening GFA for FY 2017-18 and also due to decrease in WPI indices from 1.83% considered in APR Order dated 29.03.2017 to 0.00% as approved now.

4.1.2.7.1.3 Administrative & General Expenses

The Petitioner in its Tariff Petition has submitted that UJVN Ltd. has to incur expenses towards insurance premium for insuring the HEPs. Further, the Petitioner has categorized the insurance cost as A&G expenses and projected the same as per UERC Tariff Regulations, 2015. The Petitioner further submitted that insuring the HEPs is essential for restoration in case of damage due to natural calamity & accidents and is also required by the MYT Regulations. While, UJVN shall make all efforts to minimize the premium by adopting competitive bidding, the same is an uncontrollable factor and is dependent on the market conditions and risk assessment parameters of the insurance companies. The Petitioner in view of the above submission, requested the Hon'ble Commission to kindly allow the insurance premium as per actual for the respective financial years of the Control Period.

The Commission in its Tariff Order dated 29.03.2017 on approval of ARR for FY 2017-18 approved the A&G expenses in accordance with the UERC Tariff Regulations, 2015. The Commission is considering the same approach for determining the A&G expenses for FY 2017-18 in accordance with the aforesaid Regulations.

However, the Commission has observed that the expenses towards insurance have been increasing substantially in the recent years. The expenses towards the insurance are of uncontrollable nature and therefore, the Commission finds it appropriate to allow the same on actual. However, the normative A&G expenses approved for the Second Control period from FY 2016-17 to FY 2018-19 were inclusive of the actual Insurance expenses incurred for FY 2012-13 to FY 2014-15. Whereas, the Commission observed that while truing up of A&G expenses a significant amount of claimed A&G expenses was deducted. Taking considerate view towards exponential increase in insurance expenses in past years, the Commission has revised normative opening A&G expenses for FY 2017-18 by escalating the normative A&G expenses for FY 2016-17 with the revised WPI escalation rate of 0.00% after excluding petition filing fees and thereafter, adding the actual insurance expenses and petition filing fees for FY 2017-18.

The A&G expenses approved by the Commission for FY 2017-18 is as shown in the Table given below:

Table 4.32: A&G Expenses approved for FY 2017-18 (Rs. Crore)

Generating Station	T.O. dated 29.03.2017 for FY 2017-18	Claimed	Approved now after Truing-up as per norms for FY 2017-18 and considering the actual insurance expenses
Dhakrani	0.55	1.91	0.79
Dhalipur	0.91	1.98	1.29
Chibro	3.46	7.57	4.53
Khodri	1.56	5.01	2.50
Kulhal	0.47	1.95	0.68
Ramganga	2.44	5.36	3.97
Chilla	2.53	4.99	4.50
MB-I	1.45	3.54	2.19
Khatima	0.49	1.28	0.79
Total	**13.86**	**33.59**	**21.24**

As A&G expenses are controllable in nature, the Commission has carried out sharing of gains excluding insurance charges in accordance with UERC Tariff Regulations, 2015 as elaborated below.

As per the UERC Tariff Regulations, 2015, O&M Expenses are controllable expenses and accordingly, the sharing of gains and losses have been carried out for O&M expenses.

Further, as discussed in additional capitalisation, the Commission has shifted the amounts pertaining to the major overhaul/maintenance/capital maintenance from additional capitalisation to R&M expenses and the same are as Rs. 3.94 Crore in Dhalipur LHP, Rs. 8.09 Crore in Chibro LHP, Rs. 9.77 Crore in Khodri LHP, Rs. 3.69 Crore in Kulhal LHP, Rs6.13 Crore in Ramganga LHP and Rs. 4.17 Crore in Chilla LHP.

The Petitioner has submitted the actual O&M expenses of Rs. 289.80 Crore including interest on GPF trust and provision for VII Pay Commission arrear for 9 LHPs. For computing net gain or loss, the Commission has considered actual O&M expenses excluding interest on GPF trust of Rs. 5.35 Crore, VII Pay Commission arrear of Rs. 4.08 Crore, rebate to customers Rs 0.04 Crore and adjusting the expenses of R&M nature shifted from additional capitalisation for FY 2017-18.

The Commission has considered insurance and VII Pay Commission arrear as uncontrollable expenditures and therefore has not considered the impact of sharing of gain and losses on these accounts. The Insurance and VII Pay Commission arrears have been allowed on actual basis and added in the Net Entitlement as depicted in Table below.

Accordingly, the Commission has approved the total O&M expenses for FY 2017-18 after sharing of gains and losses as shown in the Table below:

Table 4.33: O&M Expenses approved for FY 2017-18 (Rs. Crore)

Generating Station	Approved in T.O. dt. 29.03.2017 for FY 2017-18	Claimed based on actual	Adjusted claim	Approved now after Truing up as per norms for FY 2017-18	Efficiency gain/(loss)	Net Entitlement
			(A)	(B)*	(C)=(B)-(A)	(D)=(B)+1/3 of (-C)**
Dhakrani	18.54	22.24	21.96	15.00	(6.95)	17.71
Dhalipur	24.88	18.48	21.99	18.11	(3.88)	19.99
Chibro	55.58	57.31	62.59	49.32	(13.27)	56.44
Khodri	28.19	32.66	41.40	24.99	(16.41)	31.83
Kulhal	12.92	14.41	17.59	10.37	(7.22)	13.12
Ramganga	32.28	39.04	43.01	28.22	(14.79)	35.85
Chilla	46.42	49.08	51.84	40.33	(11.51)	46.84
MB-I	39.89	41.03	40.29	32.38	(7.91)	36.06
Khatima	16.34	15.59	15.23	14.24	(0.99)	15.05
Total	**275.03**	**289.85**	**315.90**	**232.97**	**(82.93)**	**272.90**

**Excluding insurance and VII Pay Commission Arrear.*
*** Including insurance and VII Pay Commission Arrear.*

4.1.2.7.2 O&M Expenses for Maneri Bhali-II

With regard to the O&M expenses of MB-II, the Commission has adopted the same approach as adopted for O&M expenses of 9 LHPs.

The escalation rates have been computed on the basis of revised CPI Inflation and WPI Inflation. The Commission has considered the revision in CPI Inflation and WPI Inflation on the basis of actual data and has computed the normative O&M expenses on the basis of Regulation 48(2) of UERC Tariff Regulations, 2015.

For computing the normative O&M expenses for FY 2017-18, the Commission has considered the normative employee expenses for FY 2016-17. Further, for the purpose of arriving at the employee expenses for FY 2017-18, the Commission has considered the value of Growth Factor 'Gn' on the basis of actual details of recruitment provided by UJVN Ltd. The Commission has considered the average increase in CPI for preceding three years from FY 2014-15 to FY 2016-17 as 5.12%.

For computing the normative R&M expenses for FY 2017-18, the Commission has multiplied the K Factor (average of FY 2012-13 to FY 2014-15) with the opening GFA approved for FY 2017-18. The Commission has considered the average increase in WPI for preceding three years from FY 2014-15 to FY 2016-17 as 0.00%.

For computing the normative A&G Expenses for FY 2017-18, the Commission has considered the normative A&G expenses for FY 2016-17 and escalated the same with the revised WPI escalation rate of 0.00% after excluding petition filing fees and thereafter, adding the actual insurance expenses and petition filing fees for FY 2017-18.The Commission, accordingly, approves O&M expenses for MB-II as shown in the Table below:

Table 4.34: Normative O&M Expenses as approved for MB-II Station for FY 2017-18 (Rs. Crore)

Particulars	Approved in T.O. dated 29.03.2017	Claimed	Normative O&M Expenses
Employee Expenses	23.67	23.36	21.06
R&M Expenses	26.35	19.93	26.27
A&G Expenses	5.53	8.79	10.03
Total O&M	**55.56**	**52.08**	**57.36**

Further, the UERC Tariff Regulations, 2015 specify for sharing of gains/losses due to controllable factors. For computing net gain or loss, the Commission has considered actual O&M expenses excluding interest on GPF trust of Rs 0.63 Crores, VII Pay Commission arrear of Rs 0.67 Crores. Thus, the Commission has worked out the actual O&M expenses of Rs. 52.08 Crore for tariff purposes. As already discussed above, O&M expenses have been considered as controllable factor, except for insurance and VII Pay Commission arrear impact, therefore the gains/losses for FY 2017-18 will have to be shared in the manner given in the Table below:

Table 4.35: O&M Expenses approved after sharing of gains and losses for FY 2017-18 (Rs. Crore)

<table>
<tr><th rowspan="2">Particulars</th><th rowspan="2">Claimed based on actual</th><th>Adjusted claim considered for Tariff Purpose</th><th>Approved now after truing up as per norms for FY 2017-18</th><th>Efficiency gain/(loss)</th><th>Generator Share</th><th>Net Entitlement</th></tr>
<tr><th>(A)</th><th>(B)*</th><th>(C)=(B)-(A)</th><th>(D)=2/3 of (C)</th><th>(E)**=(A)+(D)</th></tr>
<tr><td>O&M Expenses of MB-II</td><td>52.08</td><td>46.02</td><td>51.95</td><td>5.93</td><td>3.95</td><td>55.38</td></tr>
</table>

**Excluding insurance and VII Pay Commission Arrear.*
*** Including insurance and VII Pay Commission Arrear.*

4.1.2.8 ***Interest on Working Capital***

A. Old Nine Large Hydro Generating Stations

The Petitioner has claimed that it has computed the working capital for each plant in accordance with the provisions of the UERC Tariff Regulations, 2015, on normative basis. The rate of interest considered by the Petitioner for computing interest on working capital for FY 2017-18 has been considered as 13.75% on the basis of the PLR of State Bank of India. Further, the Commission has observed that the SBAR of State Bank of India as on date of filing of Tariff Petition is 13.75%. The Commission has considered the same for calculating the interest on working capital.

The components of working capital as per Regulation 33 (1) b) of UERC Tariff Regulations, 2015 are as follows:

> *"In case of hydro power generating stations and transmission system and SLDC, the working capital shall cover:*
>
> *(i) Operation and maintenance expenses for one month*
>
> *(ii) Maintenance spares @ 15% of operation and maintenance expenses; and*
>
> *(iii) Receivables equivalent to two months of the annual fixed charges"*

With respect to the interest on working capital Regulation 33 of the UERC Tariff Regulations, 2015 specifies as under:

> *"Rate of interest on working capital shall be on normative basis and shall be equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made.*
>
> *...."*

4.1.2.8.1 *One Month O&M Expenses*

The Commission has Trued up the annual O&M expense plant-wise for FY 2017-18. Based on the approved O&M expenses, one month's O&M expenses has been worked out plant-wise for determining the working capital requirement.

4.1.2.8.2 *Maintenance Spares*

The Commission has considered the maintenance spares in accordance with UERC Tariff Regulations, 2015. The Commission has determined the plant-wise maintenance spares requirement at the rate of 15% of the Trued up O&M Expenses for FY 2017-18.

4.1.2.8.3 *Receivables*

The UERC Tariff Regulations, 2015 envisages receivables equivalent to two months of fixed charges for sale of electricity as an allowable component of working capital. Plant-wise Annual Fixed Charges (AFC) for the Petitioner includes O&M expenses, depreciation, interest on loan, return on equity and interest on working capital. The Commission has considered the receivables for two months based on the Trued up plant-wise AFC for FY 2017-18.

As regards the interest on working capital, Regulation 33 of the UERC Tariff Regulations, 2015 specifies rate of interest on working capital to be taken equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made. As the Tariff Petition for FY 2017-18 was filed on 30.11.2018, the Commission has considered the prevailing State Bank Advance Rate (SBAR) of State Bank of India for computing the Interest on Working Capital.

Accordingly, the normative Interest on Working Capital for FY 2017-18 as approved by the Commission is as shown in the Table below:

Table 4.36: Interest on Working Capital for Nine LHPs for FY 2017-18 (Rs. Crore)

Generating Station	Approved Working Capital after Truing up				Interest on Working Capital		
	1 month O&M Expenses	Maintenance Spares @15% of O&M	2 months Receivables	Total Working Capital	Approved in MYT Order dt. 29.03.2017	Claimed	Normative Approved now after truing up
Dhakrani	1.48	2.66	3.26	7.39	1.11	1.29	1.02
Dhalipur	1.67	3.00	3.63	8.30	1.55	1.12	1.14
Chibro	4.70	8.47	11.08	24.25	3.32	3.41	3.33
Khodri	2.65	4.77	6.56	13.98	1.72	1.98	1.92
Kulhal	1.09	1.97	2.44	5.50	0.81	0.86	0.76
Ramganga	2.99	5.38	6.59	14.95	1.84	2.25	2.06
Chilla	3.90	7.03	9.73	20.66	2.89	2.98	2.84
MB-I	3.00	5.41	8.12	16.53	2.65	2.68	2.27
Khatima	1.25	2.26	6.71	10.23	1.54	1.48	1.41
Total	**22.74**	**40.94**	**58.12**	**121.80**	**17.43**	**18.04**	**16.75**

Further, the UERC Tariff Regulations, 2015 specify for sharing of gains/losses due to controllable factors and as per UERC Tariff Regulations, 2015, variation in working capital requirements is a controllable factor. The actual interest on working capital for UJVN Ltd. as per audited accounts is NIL. As the actual interest on working capital incurred by the Petitioner is less than the normative interest on working capital, the Commission has shared the gain in interest on working capital in accordance with the provisions of UERC Tariff Regulations, 2015.

The interest on working capital for nine LHPs after sharing the gains is as given in Table below:

Table 4.37 Interest on Working Capital for Nine LHPs for FY 2017-18 after sharing of Gains (Rs. Crore)

Particulars	Actual	Normative as Trued Up	Efficiency gain/(loss)	Rebate in Tariff	Net Entitlement
	(A)	(B)	(C)=(B)-(A)	(D)=1/3x (C)	(E)=(B)-(D)
Interest on Working Capital	0.00	16.75	16.75	5.58	11.16

B. Maneri Bhali-II

As discussed earlier, the Commission has approved the Capital Cost of MB-II as on CoD and has considered additional capitalisation, and has reviewed all the components of AFC. As a result of which the Interest on Working Capital has been revised in accordance with UERC Tariff Regulations, 2015 as shown in the Table below:

Table 4.38: Interest on Working Capital as approved for FY 2017-18 (Rs. Crore)

Particulars	Approved in MYT Order for FY 2017-18 dated 29.03.2017	Claimed	Approved now after truing up
FY 2017-18	7.81	9.11	7.43

As discussed above, as the actual interest on working capital incurred by the Petitioner for FY 2017-18 is less than the normative interest on working capital, the Commission has shared the gain in interest on working capital in accordance with the provisions of UERC Tariff Regulations, 2015.

The interest on working capital for MB-II after sharing the gains for FY 2017-18 is as given in Table below:

Table 4.39: Interest on Working Capital for MB-II for FY 2017-18 after sharing of gains (Rs. Crore)

Particulars	Actual	Normative as Trued Up	Efficiency gain/(loss)	Rebate in Tariff	Net Entitlement
Interest on Working Capital	**(A)**	**(B)**	**(C)=(B)-(A)**	**(D)=1/3x(C)**	**(E)=(B)-(D)**
FY 2017-18	0.00	7.43	7.43	2.48	4.96

4.1.2.9 Annual Fixed Charges for Nine LHPs for FY 2017-18

Based on the above analysis, the Commission has worked out the approved figures of Gross AFC for FY 2017-18 after truing up. The summary of Gross AFC for FY 2017-18 is as shown in the Table below:

Table 4.40: Summary of AFC for FY 2017-18 (Rs. Crore)

Generating Station	Approved in T.O. dt. 29.03.2017 for FY 2017-18	AFC Claimed	AFC Approved after truing-up of FY 2017-18					
			Depreciation	Interest on loan	Interest on Working Capital after sharing of gains	O&M expenses	RoE	Gross Annual Fixed Cost
Dhakrani	22.27	25.57	0.38	0.29	0.68	17.71	0.87	19.93
Dhalipur	32.36	23.35	0.33	0.03	0.76	19.99	1.19	22.31
Chibro	68.13	69.92	1.67	1.46	2.22	56.44	5.88	67.66
Khodri	35.97	41.20	1.73	0.53	1.28	31.83	4.66	40.03
Kulhal	16.96	17.48	0.22	0.10	0.50	13.12	0.98	14.93
Ramganga	37.27	44.54	0.34	0.18	1.37	35.85	2.80	40.54
Chilla	60.70	61.72	1.04	1.58	1.89	46.84	7.57	58.93
MB-I	63.20	60.02	4.17	0.21	1.52	36.06	7.13	49.09
Khatima	44.38	43.14	7.54	10.11	0.94	15.05	7.00	40.65
Total	**381.23**	**386.96**	**17.41**	**14.48**	**11.16**	**272.90**	**38.09**	**354.05**

4.1.2.10 *Non Tariff Income*

A. Old Nine Large Hydro Generating Stations

Regulation 46 of the UERC Tariff Regulations, 2015 specifies as follows:

"46. Non Tariff Income

The amount of non-tariff income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generation Company.

Provided that the Generation Company shall submit full details of its forecast of non tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non tariff income shall be as under:

a) Income from rent of land or buildings;

b) Income from sale of scrap;

c) Income from statutory investments;

d) Interest on delayed or deferred payment on bills;

e) Interest on advances to suppliers/contractors;

f) Rental from staff quarters;

g) Rental from contractors;

h) Income from hire charges from contactors and others;

i) Income from advertisements, etc.;

j) Any other non- tariff income.

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income."

The Petitioner has submitted the details of actual Non-Tariff Income for 9 old large hydro generating stations as well as for MB-II LHP for FY 2017-18 in accordance with the audited accounts. The Petitioner has further submitted that Non-Tariff income for FY 2017-18 has been claimed in accordance with the following exception provided in Regulation 46 of UERC Tariff

Regulations, 2015.

"…Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income. "

The Commission observed that Petitioner has not considered interest on fixed deposit as a part of Non-Tariff Income stating that the interest amount is out of Return on Equity for 9 LHPs and MB-II.

The Commission vide its letter dated 09.01.2018 directed the Petitioner to substantiate its claim towards "other income" from fixed deposits which has been through Return on Equity earned by the Petitioner. In response, the Petitioner vide its letter dated 18.01.2019 submitted its justification for the same. The Commission examined the matter and has considered the plant-wise non-tariff income for truing up purposes as proposed by the Petitioner.

The Non-Tariff income as approved by the Commission for FY 2017-18 is shown in the Table below:

Table 4.41: Non-Tariff Income for 9 LHPs for FY 2017-18 (Rs. Crore)

Generating Station	Approved in T.O. dated 29.03.2017 for FY 2017-18	Claimed	Approved now after Truing up for FY 2017-18
Dhakrani	0.62	0.39	0.39
Dhalipur	0.91	0.50	0.50
Chibro	4.20	1.18	1.18
Khodri	2.01	0.69	0.69
Kulhal	0.50	0.30	0.30
Ramganga	3.96	1.01	1.01
Chilla	2.47	0.54	0.54
MB-I	5.96	0.38	0.38
Khatima	1.40	0.37	0.37
Total	**22.03**	**5.34**	**5.34**

B. MB-II

In case of MB-II, the Non Tariff income approved vide Order dated 29.03.2017 for FY 2017-18 is Rs. 2.73 Crore, the Petitioner has now claimed Rs. 0.92 Crore. Therefore, for MB-II LHP, the Commission has considered the Non Tariff Income as claimed by the Petitioner.

4.1.2.11 ***Truing up for Nine LHPs for FY 2017-18 and its net impact on UPCL***

The Commission has Trued up the (Surplus)/Gap for 9 LHPs pertaining to FY 2017-18 to be recovered by UJVN Ltd. from UPCL and HPSEB. Based on the above, the total amount recoverable by UJVN Ltd. from UPCL and HPSEB excluding the carrying cost is as summarized in the Table below:

Table 4.42: Summary of net AFC as Trued Up by the Commission for 9 LHPs for FY 2017-18 to be recovered from UPCL (Rs. Crore)

Generating Stations	Approved Net AFC in T.O. dated 29.03.2017 for FY 2017-18	Total AFC to be recovered
Dhakrani	16.08	14.56
Dhalipur	23.36	16.23
Chibro	46.9	49.57
Khodri	24.97	29.33
Kulhal	13.07	11.64
Ramganga	33.31	39.53
Chilla	58.23	58.39
MB-I	57.24	48.72
Khatima	42.98	40.28
Total	**316.13**	**308.24**

The summary of truing up for FY 2017-18 for UPCL after considering the actual performance parameter achieved in FY 2017-18 is shown in the Table below:

Table 4.43: Summary of net truing-up for FY 2017-18 for UPCL (Rs. Crore)

Generating Station	AFC to be recovered from UPCL (Rs Crore)	Capacity Charges (Rs Crore)	NAPAF (%)	Actual / Re-stated PAFY (%)	Capacity charges allowable (Rs Crore)	Capacity charges after sharing	Actual Billed Energy (MU)	Per unit rate approved (Rs/kWh)	Allowable EC (Rs Crore)	Secondary energy (MU)	Sec Energy Rate (Rs/kWh)	Total Sec. Energy charges (Rs Crore)	Total allowable(EC+CC) (Rs Crore)	Total recovered from UPCL	Truing-up-impact
Dhakrani	14.56	7.28	66.17	59.70	6.57	6.80	95.56	0.623	5.95	0.00	0.578	0.00	12.76	13.85	(1.10)
Dhalipur	16.23	8.11	61.07	59.64	7.92	7.99	140.96	0.567	8.00	0.00	0.567	0.00	15.99	22.96	(6.97)
Chibro	49.57	24.79	65.06	64.95	24.74	24.76	585.86	0.446	24.79	30.11	0.446	1.34	50.89	48.19	2.70
Khodri	29.33	14.67	57.23	57.84	14.82	14.77	256.92	0.573	14.67	0.75	0.573	0.04	29.48	25.15	4.33
Kulhal	11.64	5.82	65.00	71.64	6.42	6.22	97.86	0.476	4.66	0.00	0.447	0.00	10.88	12.43	(1.56)
Ramganga	39.53	19.77	19.00	15.29	15.90	17.19	246.91	0.640	15.80	0.00	0.517	0.00	32.99	26.61	6.38
Chilla	58.39	29.19	74.00	72.80	28.72	28.88	795.60	0.439	29.19	77.85	0.407	3.17	61.24	63.58	(2.35)
MB-I	48.72	24.36	79.00	70.45	21.72	22.60	386.02	0.621	23.97	0.00	0.449	0.00	46.57	51.20	(4.63)
Khatima	40.28	20.14	69.30	64.37	18.70	19.18	205.50	0.863	17.74	0.00	0.863	0.00	36.93	38.94	(2.01)
Total	308.24	154.12	-	-	145.52	148.39	2811.19	-	144.78	108.70	-	4.55	297.72	302.92	(5.20)

Thus, for 9 LHPs, the Commission has computed the net surplus of Rs. 5.20 Crore for FY 2017-18 on account of sharing of gains and losses and considering the actual performance parameters.

Besides above, as discussed in para 4.1.2.3 (Additional Capitalisation) of this Chapter, with regard to Khatima HEP, an amount of Rs. 2.65 Crore is being allowed as prior period expense and the same has been added in Trued up amount of FY 2017-18.

The Commission has trued up the (Surplus)/Gap for 9 LHPs pertaining to FY 2017-18 to be recovered by UJVN Ltd. from UPCL. Based on the above, the total amount refundable by UJVN Ltd. from UPCL along with the carrying cost is as summarized in the Table below:

Table 4.44: Summary of net AFC as Trued Up by the Commission for 9 LHPs to be refunded to UPCL (Rs. Crore)

Particulars	FY 2017-18	FY 2018-19
Opening Balance	-	(2.72)
True Up Amount Gap/(Surplus)	(2.55)	-
Carrying Cost	(0.18)	(0.37)
Closing Balance	(2.72)	(3.10)
Interest Rate	13.75%	13.75%

The Commission directs UJVN Ltd. to refund Rs. 3.10 Crore to UPCL in accordance with the provisions of UERC Tariff Regulations, 2015 in twelve equal monthly instalments starting from April 2019 to March 2020.

4.1.2.12 ***Truing up of 5 LHPs of UJVN Ltd. for FY 2017-18 for HPSEB***

The Commission has determined the Plant-wise total truing up to be recovered from HPSEB as follows:

Table 4.45: Summary of net AFC as Trued up for FY 2017-18 by the Commission for 9 LHPs to be recovered from HPSEB (Rs. Crore)

Generating Stations	Approved Net AFC in APR Order dated 29.03.2017	Total AFC to be Recovered
Dhakrani	5.57	4.98
Dhalipur	8.09	5.58
Chibro	17.03	16.92
Khodri	8.99	10.01
Kulhal	3.39	2.99
Ramganga	-	-
Chilla	-	-
MB-I	-	-
Khatima	-	-
Total	**43.07**	**40.47**

Based on the above, the total amount refunded by UJVN Ltd. to HPSEB alongwith carrying cost is as summarised in the Table below:

Table 4.46: Summary of net AFC as Trued Up by the Commission to be refunded to HPSEB (Rs. Crore)

Particulars	FY 2017-18	FY 2018-19
Opening Balance	-	(2.79)
True Up Amount Gap/(Surplus)	(2.61)	-
Carrying Cost	(0.18)	(0.38)
Closing Balance Gap/(Surplus)	(2.79)	(3.17)
Interest Rate	13.75%	13.75%

The Commission directs UJVN Ltd. to refund Rs. 3.17 Crore to HPSEB on the basis of actual PAFY and energy billed in accordance with the provisions of UERC Tariff Regulations, 2015 in equal twelve equal monthly instalments starting from April, 2019 to March, 2020.

4.1.2.13 *Net Annual Fixed Charges for MB-II from FY 2017-18*

Based on the approved capital cost of MB-II, the approved additional capitalisation and O&M expenses in accordance with MYT Regulations 2015, the net truing up of AFC for FY 2017-18 is as shown in the Table below:

Table 4.47: Summary of truing up of Net AFC of MB-II for FY 2017-18 (Rs. Crore)

Particulars	Approved in T.O. for FY 2017-18 dated 29.03.2017	Claimed	Approved now after truing up
Depreciation	60.51	74.03	62.99
Interest on loan	87.48	79.57	75.47
Interest on Working Capital	7.81	9.11	4.96
O&M expenses	55.56	52.08	55.38
RoE	47.32	110.79	48.92
Total Annual Fixed Costs	**258.68**	**325.57**	**247.73**
NTI	2.73	0.92	0.92
Net AFC	**255.95**	**324.65**	**246.80**

The summary of truing up of MB-II with regard to the Net AFC approved for FY 2017-18 in the Order dated 29.03.2017 is as shown in the Table below:

4.1.2.14 *Net impact on account of Truing up of FY 2017-18 of MB-II*

Table 4.48: Net impact on account of truing up of FY 2017-18

AFC to be recovered from UPCL (Rs Crore)	Capacity Charges (Rs Crore)	NAPAF (%)	Actual/ Re-stated PAFY (%)	Capacity charges allowable (Rs Crore)	Capacity charges after sharing	Actual Energy Considered (MU)	Actual Billed Energy (MU)	Allowable EC (Rs Crore)	Total allowable (EC+CC) (Rs Crore)	Total recovered from UPCL	Truing up impact
246.80	123.40	82.00%	65.17%	98.07	106.52	1550.44	1265.85	100.75	207.27	206.51	0.76

4.1.2.15 *Summary of Net Impact on Account of Truing up of FY 2017-18 of MB-II including Carrying Cost*

The Commission has trued up the (Surplus)/Gap for MB-II pertaining to FY 2017-18 to be recovered by UJVN Ltd. from UPCL. Based on the above, the total amount refundable to UPCL along with the carrying cost is summarized in the Table below:

Table 4.49: Summary of net amount Trued Up by the Commission for FY 2017-18 to be refunded to UPCL (Rs. Crore)

Particulars	2017-18	2018-19
Opening (Surplus)/Gap	0.00	0.81
True Up Amount	0.76	0.00
Carrying Cost	0.05	0.11
Closing (Surplus)/Gap	0.81	0.93
Interest Rate	13.75%	13.75%

The Commission directs UJVN Ltd. to recover the above approved amount of Rs. 0.93 Crore on account of truing up of MB-II for FY 2017-18 from UPCL in accordance with the provisions of UERC Tariff Regulations, 2015 in twelve equal monthly instalments starting from April 2019 to March 2020.

5 Commission's Analysis, Scrutiny & Conclusion on APR for FY 2018-19 and MYT for the Third Control Period from FY 2019-20 to FY 2021-22

5.1 Annual Performance Review

The Commission, vide its Order dated 05.04.2016 had approved the Multi Year Tariff for the Petitioner for the Second Control Period FY 2016-17 to FY 2018-19. Further, the Commission vide its Order dated 21.03.2018, approved the Tariff for FY 2018-19. Regulation 12(3) of the UERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015 stipulate that under the MYT framework, the performance of the generating company shall be subject to Annual Performance Review.

Regulation 12(3) of the UERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015 specify as under:

"The scope of Annual Performance Review shall be a comparison of the performance of the Applicant with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise the 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 factor) 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 sharing of gains and losses on account of controllable factors for the previous year."

The Commission, vide its Order dated 05.04.2016, on approval of Business Plan and MYT Petition for the Second Control Period from FY 2016-17 to FY 2018-19 approved the AFC for the Second Control Period based on the audited accounts till FY 2014-15. Further, the Commission vide its Order dated 21.03.2018, approved the AFC for FY 2018-19 based on the Audited accounts till FY 2016-17. The Petitioner, in this Petition, has proposed revision of estimates for FY 2019-20 based on the audited accounts for FY 2017-18 and revised estimates for FY 2018-19.

The Commission, in this Order, has carried out the Truing-up of 9 LHPs and MB-II for FY 2017-18 in accordance with the UERC (Terms and Conditions for Determination of Tariff) Regulations, 2015. In accordance with Regulation 12(3) of the UERC Tariff Regulations, 2015 the scope of Annual Performance Review is limited to the revision of estimates for the current and /or ensuing financial year, if required, based on the audited financial results for the previous year. The Commission shall carry out the Truing-up of FY 2018-19 based on the audited accounts for that year and give effect on this account in the AFC of FY 2020-21. The Commission, as discussed in Chapter 4, has Trued Up the expenses for FY 2017-18 for 9 LHPs and MB-II. The approach adopted by the Commission for approval of each element of Third MYT Control Period from FY 2019-20 to FY 2021-22 is elaborated in the subsequent paragraphs.

5.2 Physical Parameters

5.2.1 *NAPAF*

The Commission, in the approval of Business Plan for the Third Control Period from FY 2019-20 to FY 2021-22 as discussed in Chapter 3 of the Order, has already taken a view on the NAPAF for the large hydro generating stations. The Commission has accordingly approved the NAPAF for the generating stations for Third Control Period as follows:

Table 5.1: NAPAF as approved by the Commission for Third Control Period from FY 2019-20 to FY 2021-22

Generating Station	Approved as per T.O. dated 29.03.2017 for FY 2017-18 (%)	Proposed by UJVN Ltd. (%)			Approved (%)		
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2019-20	FY 2020-21	FY 2021-22
Dhakrani	66.17	60.00	50.00	40.00	66.17	66.17	66.17
Dhalipur	61.07	40.00	40.00	50.00	61.07	61.07	61.07
Chibro	65.06	63.00	63.00	63.00	65.06	65.06	65.06
Khodri	57.23	55.00	55.00	55.00	57.23	57.23	57.23
Kulhal	65.00	65.00	65.00	65.00	65.00	65.00	65.00
Ramganga	19.00	15.00	15.00	15.00	19.00	19.00	19.00
Chilla	74.00	56.00	56.00	44.00	74.00	74.00	74.00
MB-I	79.00	52.00	53.00	57.00	79.00	79.00	79.00
Khatima	69.30	65.00	65.00	65.00	69.30	69.30	69.30
MB-II	82.00	66.00	66.00	66.00	82.00*	82.00*	82.00*

** Provisionally approved.*

5.2.2 *Design Energy and Saleable Primary Energy*

A. Old Nine Large Generating Station

As discussed in detail in Chapter 3 and for reasons spelt out therein, the Commission accordingly approves the design energy of 10 LHPs for the Third Control Period. Thereafter, for ascertaining the Saleable Primary Energy, Normative Auxiliary Consumption including Transformation Losses as specified in the UERC Tariff Regulations, 2018 is deducted from the Design Energy to arrive at the Saleable Primary Energy for the Third Control Period. The Commission accordingly approves the Design Energy and Saleable Primary Energy as shown in the Table below:

Table 5.2: Original Design Energy, Design Energy and Saleable Primary Energy for Third Control Period from FY 2019-20 to FY 2021-22 as approved by the Commission

Generating Station	Original Design Energy	Design Energy	Auxiliary consumption (including Transformation Loss)		Saleable Primary energy
	MU	MU	%	MU	MU
Dhakrani	169.00	156.88	0.70	1.10	155.78
Dhalipur	192.00	192.00	0.70	1.34	190.66
Chibro	750.00	750.00	1.20	9.00	741.00
Khodri	345.00	345.00	1.00	3.45	341.55
Kulhal	164.00	153.91	0.70	1.08	152.83
Ramganga	385.00	311.00	0.70	2.18	308.82
Chilla	725.00	671.29	1.00	6.71	664.58
MB-I	546.00	395.00	0.70	2.77	392.24
Khatima	208.00	235.59	1.00	2.36	233.23
MB-II	1566.10	1566.10	1.00	15.66	1550.44
Total	**5050.10**	**4776.77**		**45.65**	**4731.13**

Recognising the fact, that most of the 9 LHPs are old and have run for 32 to 60 years, the Commission has not considered the Original Design Energy for calculation of energy charge rate (ECR) as it would result in under-recovery of the AFC of the Petitioner. The Commission has, accordingly, relaxed the requirement of the UERC Tariff Regulations, 2018 for calculation of ECR. The ECR will be calculated based on the approved Saleable Primary Energy as already discussed in Chapter 3 of this Order. However, Secondary Energy will be calculated only in case the actual energy generation exceeds the Original Design Energy and any energy generated in excess of Design Energy approved in this Tariff Order upto the Original Design Energy shall not be considered as Secondary Energy. Further, recovery from Energy Charges shall in no case exceed 50% of the Annual Fixed Cost upto the Original Design Energy. However, the Commission as discussed in Chapter 3 of this Order shall revisit the Design Energy once the RMU works get completed and actual impact/loss of generation due to the NGT Order based on the actual flow from the Dams/Barrages during the lean season vis-a-vis such flow prior to the NGT Order.

B. Maneri Bhali-II

With regard to the Design Energy and Saleable Primary Energy, UJVN Ltd. in its Annexure I of the Petition has claimed the Design Energy of 1268 MUs for FY 2019-20, 1272 MUs for FY 2020-21 and 1276 MUs for FY 2021-22 after considering the impact of the NGT Order dated 09.07.2017 which states that all rivers in the Country shall maintain a minimum of 15% to 20% of the average lean season flow of the river. Further, the Petitioner in its submission dated 31.01.2019 requested to revise Design Energy of MB-II to 1268.83 MUs.

The Commission has gone through the submission of the Petitioner and as detailed in Chapter 3 of this Order, the Commission as of now has not considered the impact of the NGT Order and hence approves the Original Design Energy as 1566.10 MU as per the DPR of the station and Saleable Primary Energy after deducting the normative auxiliary consumption (including transformation losses) of 1% as 1550.44 MU.

5.3 Financial Parameters

5.3.1 *Apportionment of Common Expenses*

The Petitioner in its Petition has considered the allocation for indirect expenses in the ratio of 85:10:5 among 9 LHPs, MB-II and SHPs respectively as considered by the Commission in its Order dated 21.03.2018. The Commission in its Order dated 21.03.2018 had considered the allocation for indirect expenses in the ratio of 85:10:5 among 9 LHPs, MB-II and SHPs respectively, stated as follows:

"Accordingly, in line with the above decision in the Order dated 05.04.2016, the Commission has considered the ratio of 85:10:5 among 9 LHPs, MB-II and SHPs, respectively, for allocation of common expenses. However, the Commission would like to point out that UJVN Ltd. is diversifying its business and is also in solar generation now, accordingly, while seeking truing-up for FY 2017-18, UJVN Ltd. would be required to review the basis for such apportionment of common expenses."

The Commission as discussed in Chapter 4 of this order is of the view that the solar business is a new business vertical for UJVN Ltd., the expenses incurred for the Solar business should be treated separately from the expenses for 9 LHPs and MB-II Generating station. The Commission as of now has considered the allocation of common expense for Third MYT Control Period in the ratio 85:10:5 among 9LHPs, MB-II and SHPs as approved vide Commission's Order dated 21.03.2018. Further, the Commission has considered the expenses allocated to solar business as proposed by the Petition. **The Commission directs the Petitioner to submit the details of expenses allocated to solar business during FY 2018-19 and approach the Commission for allocation of Common expenses for solar power plant while truing up of FY 2018-19 as it is a new business vertical for UJVN Ltd**.

5.3.2 *Capital Cost*

A. Old Nine Generating Stations

As detailed earlier in Truing up section, pending finalization of the Transfer Scheme, for various reasons recorded in the previous Tariff Orders, the Commission had been approving opening GFA for the nine old LHPs as on 14.01.2000, as Rs. 506.17 Crore. Since, the Transfer Scheme is yet to be finalized, the Commission for the purposes of tariff determination for the Third Control Period from FY 2019-20 to FY 2021-22 is considering the opening GFA of nine old LHPs, as on 14.01.2000, as Rs. 506.17 Crore only. Further, as discussed in the Chapter 4 of this Order, the Commission has revised the Original Cost of Khatima LHP as on 1.4.2015 on account of de-capitalisation of Rs. 2.03 Crore carried out in FY 2014-15. Accordingly, the GFA considered for 9 LHPs are as per the details given below:

Table 5.3: Approved Original Cost inherited from UPJVNL (Rs. Crore)

Generating Station	Claimed	Approved as on 14.01.2000	Approved as on 01.04.2016
Dhakrani	12.40	12.40	12.40
Dhalipur	20.37	20.37	20.37
Chibro	87.89	87.89	87.89
Khodri	73.97	73.97	73.97
Kulhal	17.51	17.51	17.51
Ramganga	50.02	50.02	50.02
Chilla	124.89	124.89	124.89
MB-I*	111.93	111.93	111.93
Khatima	7.19	7.19	5.16**
Total	**506.17**	**506.17**	**504.14**

*Including DRB

**Including de-capitalisation of Rs. 2.03 Crore in FY 2014-15

B. Maneri Bhali-II

The issues related to Capital Cost of MB-II generating station as on COD have been discussed in detail in Chapter 4. Based on the above, the Commission has considered the capital cost as on CoD of Rs. 1885.50 Crore in accordance with the Order dated 21.03.2018. The financing for the project has been considered as shown in the Table below:

Table 5.4: Approved Capital Cost and Financing for MB-II as on CoD (Rs. Crore)

Particulars	Approved in Order dated 21.03.2018	Approved Now
Loans		
PFC Loan	1200.00	1200.00
Unpaid Liability	0.00	0.00
Guarantee Fee Payable	0.00	0.00
Normative Loan	119.85	119.85
Total debts	**1319.85**	**1319.85**
Equity		
PDF	326.76	326.76
GoU Budgetary support	74.89	74.89
Pre-2002 expense	164.00	164.00
Total Equity	**565.65**	**565.65**
Total Loan and Equity	**1885.50**	**1885.50**

5.3.3 ***Additional Capitalisation***

A. Old Nine Generating Stations

The Commission in addition to the opening GFA of Rs. 506.17 Crore as on 14.01.2000, has also approved additional capitalisation of Rs. 329.42 Crore for the period 01.04.2001 to 31.03.2018 in Chapter 4 of this Order. Hence, the Commission for the purpose of Tariff Computation for Third Control Period has considered the revised additional capitalisation till FY 2017-18 as Trued Up in this Tariff Order.

With regard to additional capitalisation for FY 2018-19, the Commission directed the Petitioner to submit the details of additional capitalisation for FY 2018-19. The Petitioner submitted the actual additional capitalisation from April to September, 2018 and proposed capitalization from October to March, 2019, the details of which are as under:

Table 5.5: Details of additional capitalization proposed during FY 2018-19 (Rs. in Crore)

Stations	April – Sept 2018	Oct-March 2019	Total for FY 2018-19
Dhakrani	0.70	8.59	9.29
Dhalipur	0.07	19.53	19.59
Chibro	0.52	34.59	35.11
Khodri	0.21	40.52	40.73
Kulhal	0.03	9.37	9.39
Ramganga	0.34	36.85	37.18
Chilla	1.06	29.82	30.87
MB-I	1.90	58.00	59.90
Khatima	0.75	16.85	16.93
Total	**11.57**	**280.33**	**259.01**

The Commission observed that the actual additional capitalization from April to September 2018 is very less as compared to October to March 2019. The Commission has, therefore, considered the same approach as discussed in Chapter 3 of this Order and has considered average additional capitalization for the past 3 years + RMU Expense for Khatima HEP as proposed by the Petitioner for FY 2018-19.The same shall be subject to detailed scrutiny during the truing up of FY 2018-19 and shall be finally allowed after carrying out due prudence check of actual expenditure incurred. The Commission has, accordingly, considered the opening GFA for the Third Control Period as shown in the Table below:

Table 5.6: Opening GFA as considered by the Commission for the Third Control Period (Rs. Crore)

Stations	Opening GFA as on 01.04.2018	Additions during FY 2018-19	Opening GFA as on 01.04.2019
Dhakrani	20.67	1.87	22.54
Dhalipur	30.16	1.76	31.92
Chibro	125.12	4.61	129.73
Khodri	97.10	3.67	100.78
Kulhal	23.62	1.17	24.79
Ramganga	78.43	7.63	86.06
Chilla	151.58	4.00	155.58
MB-I	148.87	1.95	150.83
Khatima	160.03	11.51	171.54
Total	**835.59**	**38.18**	**873.77**

With regard to additional capitalisation for FY 2019-20 to FY 2021-22, the Commission has already discussed the matter in detail in Chapter 3 and has provisionally considered the additional capitalisation. The provisionally approved additional capital expenses shall be subject to detailed scrutiny during Annual Performance Review/True Up and capex shall be finally allowed after carrying out due prudence check based on the approval of the Commission and actual expenditure incurred. With regard to additional capitalisation for works necessary for efficient operation of the plant, the Commission in line with its previous approach shall consider the same on actual basis subject to prudence check.

The Petitioner in its reply submitted the Plant wise revised additional capitalisation for FY 2019-20 to FY 2021-22 as shown in the Table below:

Table 5.7: Additional Capitalisation as proposed by UJVN Ltd. for Third Control Period (Rs. Crore)

Generating Station	FY 2019-20	FY 2020-21	FY 2021-22
Dhakrani	41.39	28.45	20.86
Dhalipur	54.19	51.75	2.63
Chibro	44.68	16.03	7.89
Khodri	16.19	7.06	2.76
Kulhal	52.03	12.96	5.86
Ramganga	18.97	22.46	7.50
Chilla	90.02	59.58	114.93
MB-I	112.43	49.48	38.11
Khatima	27.68	36.09	29.78
Total	**457.58**	**283.86**	**230.32**

The Commission with regard to the additional capitalisation projected for FY 2019-20 to FY 2021-22, has considered the additional capitalisation as approved in Chapter 3 of this Order. The Commission, accordingly, approves the following additional capitalisation for the Third Control Period as follows.

Table 5.8: Additional Capitalisation as approved for Third Control Period (Rs. Crore)

Generating Station	FY 2019-20	FY 2020-21	FY 2021-22
Dhakrani	1.87	1.87	23.47
Dhalipur	29.68	29.68	29.68
Chibro	4.61	4.61	4.61
Khodri	3.67	3.67	3.67
Kulhal	1.17	1.17	1.17
Ramganga	7.63	7.63	7.63
Chilla	4.00	4.00	4.00
MB-I	49.96	49.96	49.96
Khatima	0.07	0.07	0.07
Total	**102.68**	**102.68**	**124.28**

B. Maneri Bhali-II

The Commission, as discussed earlier has decided to consider additional capitalisation since COD and has approved additional capitalisation of Rs. 331.51 Crore till 31.03.2018. With regard to FY 2018-19, the Petitioner submitted the likely additional capitalisation to be incurred in FY 2018-19 as Rs. 32.89 Crore. The Commission has gone through the submission of the Petitioner. The Commission observed that out of Rs. 32.89 Crore, the Petitioner has incurred Rs. 6.68 Crores during April to September, 2018 and Rs. 26.21 Crore during October to March, 2019. The Commission, in case of MB-II has considered the approach as discussed in Chapter 3 of this Order and has considered average additional Capitalization for past 3 years, i.e. from FY 2015-16 to FY 2017-18 excluding the additional Capitalization for Balance Capital works. The same shall be subject to detailed scrutiny during the truing up of FY 2018-19 and shall be finally allowed after carrying out due prudence check of actual expenditure incurred. The Commission has, accordingly, considered the opening GFA for the Third Control Period as Rs. 2229.06 Crore as shown under:

Table 5.9: Opening GFA as considered by the Commission for the Third Control Period (Rs. Crore)

Generating Station	Opening GFA as on 01.04.2018	Additions during FY 2018-19	Opening GFA as on 01.04.2019
MB-II	2217.01	12.05	2229.06

With regard to the additional capitalisation proposed during the Third Control Period for the works necessary for efficient operation of the plant, the Commission has considered the additional capitalisation as approved in Chapter 3 of this Order subject to prudence check. The Commission, accordingly, approves the additional capitalisation for the Third Control Period for MB-II Generating Station as under:

Table 5.10:Additional Capitalization approved for Third Control Period for MB-II Station

Generating Station	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
MB-II	46.12	12.05	49.35	12.05	13.47	12.05

5.3.4 *Depreciation*

A. Old Nine Generating Stations

The Petitioner submitted that the depreciation has been computed considering the proposed GFA for each year of the Third Control Period from FY 2019-20 to FY 2021-22 and the rates of depreciation prescribed in the UERC Tariff Regulations, 2018. Accordingly, the Petitioner has proposed the depreciation of Rs. 33.98 Crore, Rs. 56.91 Crore and Rs. 70.63 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively.

Regulation 28 of the UERC Tariff Regulations, 2018 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 depreciation shall not 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.

..."

The Petitioner submitted that UERC Tariff Regulations, 2018 are applicable from 01.04.2019. Further, UERC Tariff Regulations, 2015, is applicable for the period 1.4.2016 to 31.03.2019. The Petitioner has claimed depreciation considering the applicable regulations.

The Commission in accordance with Regulation 28 of UERC Tariff Regulations, 2018 has computed the depreciation for the Third Control Period as detailed below:

(i) **Depreciation on Opening GFA as on 14.01.2000:** All the 9 LHPs are over 12 years old and 7 out of 9 stations have already depreciated by 90% of the original cost. Depreciation allowed till date for Khodri, and MB-I LHPs have not reached 90%, the Commission has computed the accumulated depreciation till 31.03.2019 to determine the remaining depreciable value for each LHP. The Commission has observed that as on 01.04.2019 all the 9 LHPs would be depreciated by 90% of the Original cost, hence no depreciation would be applicable for Third Control Period on opening GFA as on 14.01.2000 for the 9 LHPs.

(ii) **Depreciation on additional capitalisation:** In accordance with the UERC Tariff Regulations, 2018, the Commission has computed the balance depreciable value for assets added in each year after January 2000 by deducting the cumulative depreciation as admitted by the Commission upto 31.03.2019 from the gross depreciable value of the assets. The Commission further, computed the difference between the cumulative depreciation as on 31.03.2019 and the depreciation so arrived at by applying the depreciation rates as specified in UERC Tariff Regulations, 2018 corresponding to 12 years. The Commission has spread over the above difference in the remaining period upto 12 years of such asset addition. Further, in case where the asset life has crossed 12 years from the year of addition, the remaining depreciable value as on 31st March of the year closing has been spread over the balance life.

The depreciation expenses will be Trued Up in accordance with the provisions of UERC Tariff Regulations, 2018 once the final Truing-up for all the years prior to the Third Control Period is carried out. The summary of Depreciation Charges for the Third Control Period from FY 2019-20 to FY 2021-22 as approved by the Commission is shown in the Table below:

Table 5.11: Depreciation charges as approved by the Commission for 9 LHPs for Third Control Period (Rs. Crore)

Generating Stations	FY 2019-20				FY 2020-21				FY 2021-22			
	Claimed	Approved			Claimed	Approved			Claimed	Approved		
		On Opening GFA	On Additional Capitalization	Total		On Opening GFA	On Additional Capitalization	Total		On Opening GFA	On Additional Capitalization	Total
Dhakrani	0.94	0.00	0.51	0.51	3.01	0.00	0.60	0.60	4.47	0.00	0.70	0.70
Dhalipur	2.39	0.00	0.58	0.58	5.10	0.00	2.09	2.09	7.69	0.00	3.61	3.61
Chibro	4.08	0.00	2.05	2.05	6.20	0.00	2.28	2.28	6.75	0.00	2.52	2.52
Khodri	3.85	0.00	1.36	1.36	4.61	0.00	1.54	1.54	4.68	0.00	1.73	1.73
Kulhal	1.11	0.00	0.36	0.36	3.68	0.00	0.42	0.42	4.34	0.00	0.48	0.48
Ramganga	3.76	0.00	1.53	1.53	4.73	0.00	1.92	1.92	5.77	0.00	2.30	2.30
Chilla	3.51	0.00	1.37	1.37	8.24	0.00	1.58	1.58	11.31	0.00	1.78	1.78
*MB-I	5.24	0.00	1.69	1.69	10.89	0.00	4.24	4.24	13.35	0.00	6.78	6.78
Khatima	9.11	0.00	8.26	8.26	10.44	0.00	8.26	8.26	12.29	0.00	8.26	8.26
Total	**33.98**	**0.00**	**17.70**	**17.70**	**56.91**	**0.00**	**22.93**	**22.93**	**70.63**	**0.00**	**28.17**	**28.17**

**Including DRB claim*

B. Maneri Bhali-II

As regards the depreciation for MB-II for the Third Control Period, the Commission in accordance with the UERC Tariff Regulations, 2018 has computed the balance depreciable value for MB-II by deducting the cumulative depreciation as admitted by the Commission upto 31.03.2019 from the gross depreciable value of the assets. The Commission further, computed the difference between the cumulative depreciation as on 31.03.2019 and the depreciation so arrived at by applying the depreciation rates as specified in UERC Tariff Regulations, 2018 corresponding to 12 years. The Commission has spread over the above difference in the remaining period upto 12 years from COD of MB-II.

In line with the above approach, the Commission has computed the depreciation for the Third Control Period for MB-II on the approved GFA of Rs. 2229.06 Crore. The total depreciation for MB-II for the Third Control Period, accordingly, works out as shown in the Table below:

Table 5.12: Depreciation charges as approved by the Commission for MB-II for Third Control Period (Rs. Crore)

Particular	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	76.61	64.37	54.16	48.24	56.00	48.26

5.3.5 ***Return on Equity***

A. Old Nine Generating Stations

Regulation 26 of the UERC Tariff Regulations, 2018 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 account 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."

The Petitioner has submitted that it has claimed RoE in accordance with the aforesaid Regulations at the rate of 16.50% for Chibro, Khodri, Ramganga & MB-I and at the rate of 15.50% for Dhakrani, Dhalipur, Kulhal, Chilla & Khatima on post tax basis. The Petitioner further submitted that it may be allowed to recover Income Tax as per Regulations 34 of UERC Tariff Regulations, 2018 which stipulates as follows:

"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."

The Commission has allowed RoE at the rate of 16.50% for Chibro, Khodri, Ramganga & MB-I and at the rate of 15.50% for Dhakrani, Dhalipur, Kulhal, Chilla & Khatima as per Regulation 26 of UERC Tariff Regulations, 2018. Further, pending finalisation of the Transfer Scheme and in view of equity erosion due to de-capitalisation of Rs. 2.03 Crore in FY 2014-15 in Khatima LHP of the Petitioner, the Commission had allowed RoE on the provisional value of the opening equity of Rs. 151.19 Crore in accordance with the directions of the Hon'ble Appellate Tribunal for Electricity issued in the Order dated 14.09.2006 (Appeal No. 189 of 2005), and detailed in the Commission's Order dated 14.03.2007. As regard RoE on additional Capitalisation, the Commission has considered a normative equity of 30% where entire financing has been done through internal resources and on actual basis in other cases subject to a ceiling of 30% as specified in the Regulations. Further, with regard to recovery of income tax paid the Commission is of the view that the Regulation 34 of UERC Tariff Regulations, 2018 allows recovery of actual tax paid, subject to submission of documentary proof. Therefore, the Petitioner is entitled to claim the same at the time of truing up as per the actuals in accordance with the Regulations 34 of UERC Tariff Regulations, 2018.

As the Transfer Scheme is yet to be finalized, the Commission is provisionally allowing a return on normative equity at the rate of 16.50% for Chibro, Khodri, Ramganga & MB-I and at the rate of 15.50% for Dhakrani, Dhalipur, Kulhal, Chilla & Khatima in accordance with the provisions of UERC Tariff Regulations, 2018. The summary of the Return on Equity approved for 9 LHPs for Third Control Period is shown in the Tables given below:

Table 5.13: Return on Equity for Nine Old LHPs for FY 2019-20 (Rs. Crore)

Generating Station	Claimed	Approved		
		On Transferred Asset	On Additional Capitalisation	Total
Dhakrani	1.44	0.58	0.47	1.05
Dhalipur	3.09	0.95	0.54	1.48
Chibro	8.35	4.35	2.04	6.39
Khodri	7.31	3.66	1.32	4.98
Kulhal	1.82	0.81	0.34	1.15
Ramganga	6.03	2.48	1.78	4.26
Chilla	9.26	5.81	2.18	7.99
MB-I	10.33	5.43	1.86	7.29
Khatima	8.41	0.33	7.64	7.98
Total	**56.05**	**24.40**	**18.17**	**42.57**

Table 5.14: Return on Equity for Nine Old LHPs for FY 2020-21 (Rs. Crore)

Generating Station	Claimed	Approved		
		On Transferred Asset	On Additional Capitalisation	Total
Dhakrani	3.37	0.58	0.56	1.13
Dhalipur	5.61	0.95	1.92	2.86
Chibro	10.56	4.35	2.27	6.62
Khodri	8.12	3.66	1.50	5.16
Kulhal	4.24	0.81	0.39	1.21
Ramganga	6.97	2.48	2.16	4.64
Chilla	13.45	5.81	2.37	8.17
MB-I	15.90	5.43	4.33	9.76
Khatima	9.70	0.33	7.65	7.98
Total	**77.91**	**24.40**	**23.14**	**47.54**

Table 5.15: Return on Equity for Nine Old LHPs for FY 2021-22 (Rs. Crore)

Generating Station	Claimed	Approved		
		On Transferred Asset	On Additional Capitalisation	Total
Dhakrani	4.69	0.58	0.64	1.22
Dhalipur	8.02	0.95	3.30	4.25
Chibro	11.35	4.35	2.50	6.85
Khodri	8.46	3.66	1.68	5.34
Kulhal	4.84	0.81	0.45	1.26
Ramganga	8.08	2.48	2.54	5.02
Chilla	16.22	5.81	2.55	8.36
MB-I	18.35	5.43	6.81	12.24
Khatima	11.38	0.33	7.65	7.98
Total	**91.39**	**24.40**	**28.12**	**52.51**

B. Maneri Bhali-II

The Petitioner in its Petition has submitted that the Petitioner has computed return on equity on opening equity for each financial year as per UERC Tariff Regulations, 2018. Further, the Petitioner has claimed Return on Equity for MB-II generating station including the Return on Equity from PDF funds.

As discussed earlier in Chapter 4, the Commission has revised the Capital Cost as on COD to Rs. 1885.50 Crore. As per the financing considered by the Commission of the total approved Capital Cost of Rs. 1885.50 Crore and additional capitalisation of Rs. 343.56 Crore till FY 2018-19, Rs. 656.61 Crore have been funded through equity as already discussed in Chapter 4 of this Order.

Table 5.16: Details of Equity upto FY 2018-19

Particular	Amount (Rs. Crore)
Approved Capital cost as on 15.03.2008 (CoD)	1885.50
Additional Capitalisation upto 31.03.2019	343.56
GFA as on 31.03.2019	2229.06
Financing through grant	40.37
Net GFA	2188.69
Equity @30%	**656.61**
(i) Through PDF	351.39
(ii) GoU budgetary support	141.22
(iii) Pre-2002 expenses	164.00

However, since, out of the total equity of Rs. 656.61 Crore, Rs. 351.39 Crore had come through PDF. The Commission has not allowed the Return on Equity on the GoU contribution from PDF in the approval of ARR and truing up for the Petitioner for past years for reasons recorded in the respective Orders of the Commission. Hence, the Commission does not find the need to allow Return on Equity on GoU contribution from PDF.

The Commission has, therefore, considered the opening balance equity of Rs. 305.22 Crore and equity corresponding to additional capitalisation eligible for return purposes for the entire Third Control Period. The Commission has computed the RoE at the rate of 16.50% as specified in UERC Tariff Regulations, 2018. The summary of the Return on Equity approved for MB-II for the Third Control Period is shown in the Table given below:

Table 5.17: Return on Equity for MB-II for Third Control Period (Rs. Crore)

Particular	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Return on Equity	113.27	50.36	115.56	50.96	118.00	51.55

5.3.6 *Interest on Loans*

A. Old Nine Generating Stations

Regulation 27 of the UERC Tariff Regulations, 2018 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 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the 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:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the generating station or the transmission system or the distribution system or SLDC, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the Transmission Licensee or the Distribution Licensee or SLDC as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

…"

As also discussed in Chapter 4 of this Order, the Commission has computed the weighted average interest rate based on the outstanding loans for UJVN Ltd. except for loans taken for new projects that are yet to achieve COD. The interest rate based on the above works out to 10.77% in case of Khatima LHP and 10.69% for other 8 LHPs. Thus, the Commission has considered the interest rate of 10.77% in case of Khatima LHP and 10.69% for other 8 LHPs for computing the interest expenses. In case of MB-II station as the actual loan has been availed for the project, therefore, the interest has been computed on the basis of actual loans availed for the project. The interest rate based on the above after excluding the GoU Guarantee Fee works out to be 10.67% for MB-II station. Further, for repayment purpose, the Commission has considered repayment equal to depreciation in accordance with the UERC Tariff Regulations, 2018, while loan addition during the year is not considered since the Petitioner capitalise the assets at the end of the Financial Year.

Based on the above considerations and the UERC Tariff Regulations, 2018, the Commission has calculated the interest expense for 9 LHPs for the Third Control Period as shown in the Table below:

Table 5.18: Interest on Loan for Nine Old LHPs for Third Control Period (Rs. Crore)

Generating Station	FY 2019-20		FY 2020-21		FY 2021-22	
	Interest Claimed	Approved	Interest Claimed	Approved	Interest Claimed	Approved
Dhakrani	1.52	0.47	4.36	0.55	6.06	0.62
Dhalipur	4.77	0.07	8.37	1.78	11.51	3.12
Chibro	4.57	1.83	7.31	1.94	7.81	2.03
Khodri	3.56	0.65	4.31	0.77	4.34	0.87
Kulhal	2.12	0.31	5.70	0.36	6.23	0.40
Ramganga	4.49	2.13	5.44	2.52	6.54	2.87
Chilla	5.08	2.01	11.09	2.15	14.45	2.27
MB-I	7.55	0.07	14.98	3.51	17.35	6.66
Khatima	10.71	9.98	11.67	9.09	13.06	8.21
Total	**44.37**	**17.53**	**73.24**	**22.69**	**87.36**	**27.06**

B. Maneri Bhali-II

As discussed in the preceding paras, the Commission has computed the weighted average interest rate of 10.67% based on the outstanding loans for the project up to 31.03.2018. The Commission for computing interest for MB-II station for the Third Control Period has considered the above-mentioned interest rate.

The Commission has calculated Interest on Loan based on approach adopted for 9 LHPs for the Third Control Period. The Commission in accordance with UERC Tariff Regulations, 2018 has considered the repayment for each year of the Control Period equal to the depreciation allowed for that year.

Based on the above considerations and the UERC Tariff Regulations, 2018, the Commission has calculated the interest expense for MB-II for the Third Control Period as shown in the Table below:

Table 5.19: Interest on Loan for MB-II for Third Control Period (Rs. Crore)

Particular	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Interest on Loan	62.85	63.02	59.32	57.38	57.13	52.75

5.3.7 ***Operation and Maintenance expenses***

Regarding the Operation and Maintenance expenses, Regulation 48(2) of the UERC Tariff Regulations, 2018 stipulates as follows:

"48 Operation and Maintenance Expenses

(2) For Hydro Generating Stations

(a) ***For Generating Stations in operation for more than five years preceding the Base Year***

The operation and maintenance expenses for the first year of the control period will be approved by the Commission taking in to account the actual O&M expenses for last five years till base year, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, subject to prudence check and any other factors considered appropriate by the Commission.

(b) ***For Generating Stations in operation for less than 5 years preceding the base year:***

In case of the hydro electric generating stations, which have not been in existence for a period of five years preceding the base year, i.e. FY 2017-18, the operation and maintenance expenses for the base year of FY 2017-18 shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively, for the first year of operation and shall be escalated from the subsequent year in accordance with the escalation principles specified in clause (e) below.

(c) ***For Generating Stations declared under commercial operation on or after 01.4.2019.***

In case of new hydro electric generating stations, i.e. the hydro electric generating stations declared under commercial operation on or after 1.4.2019, the base operation and maintenance expenses for the year of commissioning shall be fixed at 4% and 2.5% of the *actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively and shall be escalated from the subsequent year in accordance with the escalation principles specified in clause (e)below.*

(d) *Post determination of base O&M Expenses for the base year, i.e. FY 2017-18, the O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. 2018-19 shall be approved based on the formula given below:-*

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

Where –

- *O&Mn – Operation and Maintenance expenses 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;*

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 -

- *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 Generating Company and approved by the Commission after prudence check.*
- *'K' is a constant to be specified by the Commission %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on Generating Company'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;

Provided that for the projects whose Renovation and Modernisation has been carried out, the R&M expenses for the nth year shall not exceed 4% of the capital cost admitted by the Commission.

- *CPI inflation – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;*
- *WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;*
- *GFAn-1 – Gross Fixed Asset of the Generating Company 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 Generating Company'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.

(e) *O&M expenses determined in sub-Regulation 2(b) & 2(c) above, shall be escalated for subsequent years to arrive at the O&M expenses for the control period by applying the Escalation factor (EFk) for a particular year (Kth year) which shall be calculated using the following formula:*

$$EF_k = 0.55xWPI_{Inflation} + 0.45xCPI_{Inflation}$$

(f) *In case of multi-purpose hydroelectric stations, with irrigation, flood control and power components, the O&M expenses chargeable to power component of the station only shall be considered for determination of tariff."*

The O&M expenses include Employee expenses, R&M expenses and A&G expenses. In accordance with Regulation 48 (2) of the UERC Tariff Regulations, 2018, the O&M expenses for the first year of the Control Period shall be determined by the Commission taking into account actual O&M expenses of the previous years and any other factors considered appropriate by the

Commission.

The Commission has calculated the annual growth in values of CPI (overall) for Industrial Workers and WPI (overall) based on the average of FY 2015-16 to FY 2017-18 and has considered the same for determination of indices for FY 2018-19 and subsequently for the Third Control Period. The summary of the same is provided in the Table below:

Table 5.20: Escalation Rate as considered by the Commission

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
CP Inflation	4.34%	4.34%	4.34%	4.34%
WP Inflation	0.33%	0.33%	0.33%	0.33%

The submissions of the Petitioner and the Commission's analysis for approving the various components of the O&M expenses for the Third Control Period from FY 2019-20 to FY 2021-22 is detailed below.

A. Old Nine Generating Stations

5.3.7.1 ***Employee expenses***

The Petitioner has submitted that for the purpose of computation of O&M expenses, it has considered FY 2017-18 as the base year as per the Regulation. Further, for projections of O&M expenses for Third Control period, actual O&M expenses for last 5 years (FY 2013-14 to 2017-18) till the base year have been considered. The Government of India, vide Notification No. 1/1/2013-E.III(A) of 28.02.2014, appointed the VII Central Pay Commission with specified Terms of Reference. The VII Central Pay Commission submitted its report to the Government of India on 19.11.2015. Accordingly, the Petitioner has proposed the employee expenses of Rs. 229.46 Crore, Rs. 243.91 Crore and Rs. 258.72 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively including the impact of VII Pay Commission.

The UERC Tariff Regulations, 2018 stipulate the normative O&M expenses for the Third Control Period to be approved taking into account the actual O&M expenses for FY 2013-14 to FY 2017-18. The Commission observed that the VII Pay Commission was implemented w.e.f. January 01, 2016 and the salaries were raised to the level of VII Pay Commission w.e.f. December 01, 2017. The actual employee expenses for the first six months of FY 2017-18 was Rs.48.71 Crore (including basic and DA) and the actual employee expenses for the first six months of FY 2018-19 was Rs. 52.78 Crore (including basic and DA) for 9 LHPs thereby the increase in actual employee expenses for the period April to September from FY 2017-18 to FY 2018-19 is 8.4%. The Commission finds that this increase in employee expenses appears to be lower on account of all the employees not opting to adopt the VII Pay Commission. The Commission also observes that the impact of VII Pay Commission is currently only in the Basic component of the salaries. In view of the above, the Commission does not find it prudent to approve the normative employee expenses for the Third Control Period based on the actual employee expenses for FY 2013-14 to FY 2017-18 as for part of this period the employee expenses are including impact of revision in salaries as well as arrears due to the VII Pay Commission. Further, as mentioned earlier, all the employees have not opted for VII Pay Commission and impact of VII Pay Commission is currently only in the Basic component of the salaries, hence the actual salaries for the past period does not reflect the total impact of VII Pay Commission.

Regulation 103(2) of the UERC Tariff Regulations, 2018 stipulates as under:

"Nothing in these Regulations shall bar the Commission from adopting in conformity withprovisions of the Act, a procedure which is at variance with any of the provisions of theseRegulations, if the Commission, in view of the special circumstances of a matter or a class ofmatters, 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 take considerate view with respect to the methodology stipulated in the UERC Tariff Regulations, 2018 for approval of normative employee expenses for the Third Control Period from FY 2019-20 to FY 2021-22 to the extent of consideration of actual employee expenses.

The Commission for arriving at the normative employee expense for FY 2019-20, has first calculated the normative employee expense for FY 2018-19 by escalating the normative employee expense of the base year i.e. FY 2017-18 without considering the impact of VII Pay Commission arrear and considering the Gn as 0% for FY 2018-19 and CPI of 4.34% for FY 2018-19. The Employee expense for FY 2018-19 so calculated have been multiplied considering a factor of 1.15 for taking care the impact of VII Pay Commission arrear to form the normative employee expense for FY 2018-19. Thus, the above calculated normative employee expense for FY 2018-19 has been used for calculating the normative employee expense for the Third Control Period by considering the Gn and CPI factor applicable for the respective years as mentioned in the Table below in accordance with the provisions of Regulation 48(2) of the UERC Tariff Regulations, 2018.

Table 5.21: Gn and CPI approved by the Commission

Particulars	FY 2018-19 (%)	FY 2019-20 (%)	FY 2020-21 (%)	FY 2021-22 (%)
Gn	**0.00**	**0.78**	**1.29**	**3.05**
CPI	**4.34**	**4.34**	**4.34**	**4.34**

The Commission shall consider the actual impact of VII Pay Commission during the True Up of FY 2018-19. Further, the Commission rules that the employee expenses shall be allowed at 137ctual for FY 2019-20 subject to prudence check at the time of True Up without any sharing of gains and losses. The normative employee expenses approved for the Third Control Period from FY 2019-20 to FY 2021-22 are as shown in the Table below:

Table 5.22: Employee expenses approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Generating Station	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	15.43	11.00	16.40	11.62	17.40	12.49
Dhalipur	11.90	16.59	12.65	17.53	13.42	18.85
Chibro	52.88	45.87	56.21	48.48	59.62	52.12
Khodri	25.12	25.33	26.71	26.77	28.33	28.79
Kulhal	8.90	9.77	9.46	10.33	10.03	11.11
Ramganga	32.92	30.77	34.99	32.52	37.12	34.97
Chilla	39.54	33.52	42.03	35.42	44.59	38.09
MB-I	28.70	24.50	30.51	25.90	32.36	27.84
Khatima	14.06	13.62	14.95	14.40	15.86	15.48
Total	**229.46**	**210.98**	**243.91**	**222.98**	**258.72**	**239.74**

5.3.7.2 ***R&M expenses***

The Petitioner submitted that the R&M expenses for the Third Control Period from FY 2019-20 to FY 2021-22 has been proposed as per the UERC Tariff Regulations, 2018. Accordingly, the Petitioner has proposed the R&M expenses of Rs. 99.50 Crore, Rs. 139.27 Crore and Rs. 161.40 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively.

The Commission has determined the R&M expenses for the Third Control Period from FY 2019-20 to FY 2021-22 in accordance with UERC Tariff Regulations, 2018. The Commission has computed the percentage of actual R&M expenses upon actual opening GFA for each year of FY 2015-16 0074o FY 2017-18. Thereafter, the Commission has considered the average of such percentages as K factor for the Third Control Period as detailed in the Table below:

Table 5.23: K-Factor considered by the Commission for Third Control Period

Generating Station	K Factor (Average of FY 2015-16 to FY 2017-18)
Dhakrani	47.60%
Dhalipur	32.05%
Chibro	11.97%
Khodri	8.12%
Kulhal	26.36%
Ramganga	9.72%
Chilla	9.84%
MB-I	7.90%
Khatima	2.00%
Total	**10.83%**

The Commission has considered the opening GFA for each year of the Third Control Period from FY 2019-20 to FY 2021-22. The Commission has considered the WPI inflation of 0.33% which is the average increase in the Wholesale Price Index (WPI) for FY 2015-16 to FY 2017-18. The Commission has computed R&M Expenses for the Third Control Period as per the methodology as stated above using the following formulae:

R&Mn = K x (GFA n-1) x (1+WPIinflation)

With regard to the generating station undergone, RMU works or planned for RMU works in the Third Control Period the Commission in its Regulation 48(2) of UERC Tariff Regulations, 2018 had stated that for projects whose Renovation and Modernisation works has been carried out, the R&M expenses for the nth year shall not exceed 4% of the capital cost admitted by the Commission. The Commission further observes that RMU works of Khatima LHP were completed in FY 2016-17. Further, with regard to Dhakrani, Dhalipur, Chilla and MB-I, the RMU works is yet to be initiated and is projected to be carried out either in Third Control Period from FY 2019-20 to FY 2021-22. With regard to Khatima, Regulation 48(2) of the UERC Tariff Regulations, 2015 states that the R&M expenses for the nth year shall not exceed 2% of the capital cost admitted by the Commission. Therefore, the Commission, in case of Khatima RMU whose RMU works were completed in FY 2016-17 has considered allowable R&M Expenses for each year of the Third Control Period considering K factor equal to 2% as per Regulation 48(2) of the UERC Tariff Regulations, 2018 as the aforesaid Regulation provides that R&M Expenses for the n^{th} year shall not exceed 4% of the Capital cost admitted by the Commission. In this regard, the Commission has observed that the actual R&M Expense incurred in Khatima HEP are well within the limit of 2% and, therefore, as of now the K-Factor for Khatima HEP has been limited to 2% only for Third Control Period, which is subject to revision during True Up based on the actual R&M expenses incurred during the year upto the aforesaid ceiling limit in the MYT Regulations, 2018 after the prudence check. With regard to other Stations, wherein the RMU works shall be completed beyond FY 2018-19, the Commission on the provisional basis has considered R&M expenses based on the methodology provided in the aforesaid Regulations. However, the Commission shall determine the same during the Annual Performance Review/True Up and any gain or loss on account of such re-consideration shall not be carried out.

The R&M expenses approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 are as shown in the Table below:

Table 5.24: R&M expenses approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Generating Station	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	13.80	10.76	21.53	11.66	25.11	12.55
Dhalipur	12.46	10.27	16.56	10.83	20.14	11.40
Chibro	13.67	15.58	17.34	16.13	18.71	16.69
Khodri	6.94	8.21	7.73	8.51	8.09	8.81
Kulhal	7.17	6.56	16.75	6.87	19.20	7.18
Ramganga	7.49	8.39	8.69	9.14	10.11	9.88
Chilla	17.24	15.35	25.12	15.75	30.39	16.14
MB-I	13.44	11.96	17.12	12.12	19.73	12.27
Khatima	7.28	3.44	8.43	3.44	9.92	3.45
Total	**99.50**	**90.52**	**139.27**	**94.44**	**161.40**	**98.36**

5.3.7.3 *A&G expenses*

The Petitioner submitted that the A&G expenses for the Third Control Period from FY 2019-20 to FY 2021-22 has been proposed as per the UERC Tariff Regulations, 2018. Accordingly, the Petitioner has proposed the A&G expenses of Rs. 38.16 Crore, Rs. 38.28 Crore and Rs. 38.41 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively.

The UERC Tariff Regulations, 2018 stipulate the normative O&M expenses for the Third Control Period to be approved taking into account the actual O&M expenses for FY 2013-14 to FY 2017-18. The Commission observed that the A&G expenses have increased significantly in the immediately preceding years partly on account of the increase in insurance expenses. In view of the above, as discussed in Chapter 4, the Commission has decided to treat insurance expense as uncontrollable in nature.

Regulation 103(2) of the UERC Tariff Regulations, 2018 stipulates 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 take considerate view with respect to methodology stipulated in the UERC Tariff Regulations, 2018 for approval of normative A&G expenses for the Third Control Period from FY 2019-20 to FY 2021-22, applying the following formula:

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

For calculating the A&G expenses for Third Control Period, the Commission has considered the normative A&G expenses approved in the True Up of FY 2017-18 as stated in Chapter 4 of this Order as the gross base A&G expenses. This normative opening gross A&G expenses have been escalated by the WPI inflation of 0.33% to arrive at A&G expenses for FY 2018-19. The gross A&G expenses so arrived at for FY 2018-19, have been considered for calculating the A&G expenses for Third Control Period considering the WPI applicable for respective years in accordance with the Regulation 48(2) of MYT Regulations, 2018. The Commission has not included the Petition filing fees while escalating the A&G expense.

The normative A&G expenses approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 are as shown in the Table below:

Table 5.25: A&G expenses approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Generating Station	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	2.28	0.84	2.29	0.84	2.30	0.85
Dhalipur	2.20	1.34	2.20	1.35	2.21	1.35
Chibro	8.61	4.68	8.64	4.70	8.67	4.71
Khodri	5.56	2.58	5.58	2.59	5.60	2.60
Kulhal	2.32	0.73	2.33	0.73	2.33	0.74
Ramganga	6.21	4.09	6.23	4.11	6.25	4.12
Chilla	5.59	4.60	5.60	4.62	5.62	4.63
MB-I	3.90	2.26	3.91	2.27	3.93	2.27
Khatima	1.49	0.85	1.49	0.85	1.50	0.85
Total	**38.16**	**21.98**	**38.28**	**22.05**	**38.41**	**22.12**

In addition to the above, the Commission shall allow to recover actual Petition filing fees and insurance charges subject to prudence check at the time of truing up.

5.3.7.4 *O&M expenses*

Based on above discussions, the O&M expenses approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 are as shown in the Table below:

Table 5.26: O&M expenses approved by the Commission for 9 Old Generating Stations for the Third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Generating Station	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	31.51	22.60	40.23	24.12	44.81	25.89
Dhalipur	26.56	28.20	31.41	29.71	35.77	31.60
Chibro	75.16	66.13	82.20	69.31	87.00	73.52
Khodri	37.63	36.12	40.02	37.87	42.02	40.19
Kulhal	18.39	17.06	28.54	17.93	31.57	19.02
Ramganga	46.62	43.26	49.91	45.77	53.47	48.97
Chilla	62.37	53.47	72.76	55.79	80.60	58.86
MB-I	46.04	38.72	51.54	40.28	56.02	42.39
Khatima	22.83	17.91	24.87	18.69	27.27	19.78
Total	**367.12**	**323.49**	**421.46**	**339.47**	**458.53**	**360.22**

B. Maneri Bhali-II

The Commission has adopted the same approach as illustrated in case of 9 LHPs and has, accordingly, approved the O&M expenses for MB-II for the Third Control Period as shown below. The Commission, accordingly, approves O&M expenses for MB-II as shown in the Table below:

Table 5.27: O&M expenses approved by the Commission for MB-II for the Third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Particulars	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Employee Expense	31.78	25.73	33.79	27.20	35.84	29.24
R&M Expense	19.83	20.12	20.30	20.22	20.80	20.33
A&G Expense	9.90	10.25	9.93	10.28	9.96	10.31
Total O&M Expenses	**61.51**	**56.10**	**64.01**	**57.70**	**66.60**	**59.89**

5.3.8 *Interest on Working Capital*

A. Old Nine Generating Stations

The Petitioner has submitted that the interest on working capital for the Third Control Period from FY 2019-20 to FY 2021-22 has been proposed in accordance with Regulation 33 of UERC Tariff Regulations, 2018.

Regulation 33 of UERC Tariff Regulations, 2018 specifies as follows;

"Rate of interest on working capital shall be on normative basis and shall be equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff or truing up or annual performance review is made."

...

In case of hydro power generating stations and transmission system and SLDC, the working capital shall cover:

(i) Operation and maintenance expenses for one month

(ii) Maintenance spares @ 15% of operation and maintenance expenses

(iii) Receivables equivalent to two months of the annual fixed charges"

The Petitioner has further submitted that it has considered the rate of interest on working capital equal to SBI PLR of 13.75% in accordance with the Regulations. The Petitioner further submitted documentary proof towards rate of interest on working capital considered.

The Commission has determined the interest on working capital for the Third Control Period in accordance with the aforesaid Regulations and is as discussed below.

5.3.8.1 ***One Month O&M Expenses***

The annual O&M expenses approved by the Commission are Rs. 323.49 Crore, Rs. 339.47 Crore and Rs. 360.22 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively. Based on the approved O&M expenses, one month's O&M expenses work out to Rs. 26.96 Crore, Rs. 28.29 Crore and Rs. 30.02 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively.

5.3.8.2 ***Maintenance Spares***

The Commission has considered the maintenance spares as 15% of O&M expenses in accordance with UERC Tariff Regulations, 2018, which work out to Rs. 48.52 Crore, Rs. 50.92 Crore and Rs. 54.03 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively.

5.3.8.3 ***Receivables***

The Commission has approved the receivables for two months based on the approved ARR of Rs.415.85 Crore, Rs. 448.46 Crore and Rs. 485.29 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively, which works out to Rs. 69.31 Crore Rs. 74.74 Crore, and Rs. 80.88 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively.

Based on the above, the total working capital requirement of the Petitioner for FY 2019-20, FY 2020-21 and FY 2021-22 works out to Rs. 144.79 Crore Rs. 153.95 Crore, and Rs. 164.93 Crore respectively. The Commission has considered the rate of interest on working capital as 13.75% equal to State Bank Advance Rate (SBAR) as on the date of filing of the instant MYT Petition and, accordingly, the interest on working capital works out to Rs. 19.91 Crore, Rs. 21.17 Crore, and Rs. 22.68 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively. The interest on working capital for FY 2019-20 to FY 2021-22 approved by the Commission for the Third Control Period from FY 2019-20 to FY 2021-22 is as shown in the Tables below:

Table 5.28: Interest on Working Capital approved by the Commission for 9 LHPs for FY 2019-20 (Rs. Crore)

Generating Station	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
Dhakrani	1.88	3.39	4.26	9.53	1.86	1.31
Dhalipur	2.35	4.23	5.24	11.82	1.72	1.63
Chibro	5.51	9.92	13.19	28.62	4.60	3.94
Khodri	3.01	5.42	7.43	15.86	2.45	2.18
Kulhal	1.42	2.56	3.27	7.25	1.15	1.00
Ramganga	3.61	6.49	8.80	18.89	2.94	2.60
Chilla	4.46	8.02	11.26	23.74	3.92	3.26
MB-I	3.23	5.81	8.30	17.33	3.13	2.38
Khatima	1.49	2.69	7.56	11.74	1.94	1.61
Total	**26.96**	**48.52**	**69.31**	**144.79**	**23.69**	**19.91**

Table 5.29: Interest on Working Capital approved by the Commission for 9 LHPs for FY 2020-21 (Rs. Crore)

Generating Station	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
Dhakrani	2.01	3.62	4.57	10.20	2.51	1.40
Dhalipur	2.48	4.46	6.30	13.23	2.20	1.82
Chibro	5.78	10.40	13.85	30.02	5.16	4.13
Khodri	3.16	5.68	7.82	16.66	2.64	2.29
Kulhal	1.49	2.69	3.45	7.63	1.92	1.05
Ramganga	3.81	6.87	9.43	20.11	3.19	2.77
Chilla	4.65	8.37	11.76	24.78	4.85	3.41
MB-I	3.36	6.04	10.01	19.41	3.87	2.67
Khatima	1.56	2.80	7.55	11.91	2.14	1.64
Total	**28.29**	**50.92**	**74.74**	**153.95**	**28.48**	**21.17**

Table 5.30: Interest on Working Capital approved by the Commission for 9 LHPs for FY 2021-22
(Rs. Crore)

Generating Station	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
Dhakrani	2.16	3.88	4.92	10.96	2.87	1.51
Dhalipur	2.63	4.74	7.35	14.72	2.64	2.02
Chibro	6.13	11.03	14.69	31.84	5.48	4.38
Khodri	3.35	6.03	8.31	17.69	2.76	2.43
Kulhal	1.59	2.85	3.66	8.10	2.13	1.11
Ramganga	4.08	7.35	10.19	21.61	3.46	2.97
Chilla	4.90	8.83	12.39	26.12	5.51	3.59
MB-I	3.53	6.36	11.78	21.67	4.29	2.98
Khatima	1.65	2.97	7.59	12.20	2.39	1.68
Total	**30.02**	**54.03**	**80.88**	**164.93**	**31.53**	**22.68**

B. Maneri Bhali-II

As regards the interest on working capital for MB-II, the Commission has computed the same based on the UERC Tariff Regulations, 2018 and considering the prevailing State Bank Advance Rate (SBAR) of 13.75% as on the date on filing the instant MYT Petition. The summary of the interest on working capital for MB-II for Third Control Period is shown in the Tables below:

Table 5.31: Interest on Working Capital approved by the Commission for MB-II for FY 2019-20
(Rs. Crore)

Generating Station	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
MB-II	4.67	8.41	40.04	53.13	9.37	7.31

Table 5.32: Interest on Working Capital approved by the Commission for MB-II for FY 2020-21
(Rs. Crore)

Generating Station	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
MB-II	4.81	8.66	36.71	50.17	8.95	6.90

Table 5.33: Interest on Working Capital approved by the Commission for MB-II for FY 2021-22
(Rs. Crore)

Generating Station	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
MB-II	4.99	8.98	36.41	50.38	9.15	6.93

5.3.9 *Non-Tariff Income*

A. Old Nine Generating Station

Regulation 46 of UERC Tariff Regulations, 2018 specifies as follows;

"46. Non Tariff Income

The amount of non-tariff income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generating Company.

Provided that the Generating Company shall submit full details of its forecast of non tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non tariff income shall be as under;

a) Income from rent of land or buildings;

b) Income from sale of scrap;

c) Income from statutory investments;

d) Interest on delayed or deferred payment on bills;

e) Interest on advances to suppliers/contractors;

f) Rental from staff quarters;

g) Rental from contractors;

h) Income from hire charges from contactors and others;

i) Income from advertisements, etc.;

j) Any other non- tariff income.

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income."

The Petitioner has proposed a non-tariff income of Rs. 5.34 Crore for each year of the Control Period of FY 2019-20, FY 2020-21 and FY 2021-22. The Commission provisionally accepts the same for the Third Control Period. The same shall, however, be Trued Up based on the actual audited accounts for the respective year.

Table 5.34: Non-Tariff Income for 9 LHPs for Third Control Period (Rs. Crore)

Generating Station	FY 2019-20	FY 2020-21	FY 2021-22
Dhakrani	0.39	0.39	0.39
Dhalipur	0.50	0.50	0.50
Chibro	1.18	1.18	1.18
Khodri	0.69	0.69	0.69
Kulhal	0.30	0.30	0.30
Ramganga	1.01	1.01	1.01
Chilla	0.54	0.54	0.54
MB-I	0.38	0.38	0.38
Khatima	0.37	0.37	0.37
Total	**5.34**	**5.34**	**5.34**

B. Maneri Bhali-II

The Petitioner has proposed a non-tariff income of Rs. 0.92 Crore for each year of the Control Period of FY 2019-20, FY 2020-21 and FY 2021-22. The Commission provisionally accepts the same for the Third Control Period. The same shall, however, be Trued Up based on the actual audited accounts for the respective year.

Table 5.35: Non-Tariff Income for MB-II for Third Control Period (Rs. Crore)

Generating Station	FY 2019-20	FY 2020-21	FY 2021-22
MB-II	0.92	0.92	0.92

5.3.10 ***Annual Fixed Charges, Capacity Charge and Energy Charge Rate (ECR) for FY 2019-20, FY 2020-21 and FY 2021-22***

A. Old nine Generating Stations

Based on the above analysis for all the heads of expenses of AFC, the Commission has approved the Annual Fixed Charges (AFC) of UJVN Ltd. for the Third Control Period attributable to its two beneficiaries. The Commission has allocated the AFC among the two beneficiaries of the Petitioner, viz. UPCL and HPSEB, based on their share in Dhakrani, Dhalipur, Chibro, Khodri and Kulhal and 100% on UPCL for other plants. Further, as discussed above, the Commission has adjusted the entire Non-Tariff Income in the AFC of UPCL.

Regulation 50 of UERC Tariff Regulations, 2018 specify as follows:

"50. Computation and Payment of Capacity Charges and Energy Charges for Hydro Generating Stations

(1) The Annual Fixed Charges of Hydro Generating Station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge

(inclusive of incentive) and Energy Charge, which shall be payable by the beneficiaries in proportion to their respective percentage share/allocation in the saleable capacity of the generating station, i.e. in the capacity excluding the free power to the home State.

(2) The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be:

AFC x 0.5 x NDM / NDY x (PAFM / NAPAF) (in Rupees)

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in Percentage

(3) The PAFM shall be computed in accordance with the following formula:

$$PAFM = 10000 \times \sum_{i=1}^{N} \mathrm{DCi}/\{\mathrm{N} \times \mathrm{IC} \times (100 - \mathrm{Aux})\}\%$$

Where,

AUX = Normative auxiliary energy consumption in percentage

DCi = Declared capacity (in ex-bus MW) for the ith day of the month which the station can deliver for at least three (3) hours, as certified by the Uttarakhand State Load Despatch Centre after the day is over.

IC = Installed capacity (in MW) of the complete generating station

N = Number of days in the month

(4) The Energy Charge shall be payable by every beneficiary for the total energy supplied to the beneficiary, during the calendar month, on ex-power plant basis, at the computed Energy Charge rate. Total Energy Charge payable to the Generating Company for a month shall be:

(Energy Charge Rate in Rs. / kWh) x {Energy supplied (ex-bus)} for the month in kWh} x (100- FEHS)/100

(5) *Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula, subject to the provisions of sub-Regulation (7):*

ECR = AFC x 0.5 x 10 / {DE x (100 – AUX) x (100 –FEHS)}

Where,

DE = Annual Design Energy specified for the hydro generating station, in MWh,.

FEHS = Free Energy for home State, in percent, as applicable"

In accordance with the above Regulations, the Annual Fixed Charge (AFC), Capacity Charges and Energy Charge Rate for the Third Control Period for 9 LHPs as approved by the Commission is shown in the Tables below:

Table 5.36: Approved AFC of 9 LHPs of UJVN Ltd. for FY 2019-20

Generating Station	Depreciation (Rs.Cr.)	Interest on Loan (Rs. Cr)	Interest on working Capital (Rs. Cr.)	O&M Expenses (Rs. Cr.)	RoE (Rs. Cr.)	Gross Annual Fixed Cost (Rs. Cr.)	Gross AFC (UPCL) (Rs. Cr.)	Non-Tariff Income (Rs. Cr.)	Net AFC (UPCL) (Rs. Cr.)	Gross/ Net AFC (HPSEB) (Rs. Cr.)
Dhakrani	0.51	0.47	1.31	22.60	1.05	25.93	19.45	0.39	19.07	6.48
Dhalipur	0.58	0.07	1.63	28.20	1.48	31.96	23.97	0.50	23.47	7.99
Chibro	2.05	1.83	3.94	66.13	6.39	80.34	60.25	1.18	59.08	20.08
Khodri	1.36	0.65	2.18	36.12	4.98	45.29	33.97	0.69	33.28	11.32
Kulhal	0.36	0.31	1.00	17.06	1.15	19.89	15.91	0.30	15.61	3.98
Ramganga	1.53	2.13	2.60	43.26	4.26	53.78	53.78	1.01	52.77	-
Chilla	1.37	2.01	3.26	53.47	7.99	68.11	68.11	0.54	67.57	-
MB-I	1.69	0.07	2.38	38.72	7.29	50.16	50.16	0.38	49.79	-
Khatima	8.26	9.98	1.61	17.91	7.98	45.74	45.74	0.37	45.37	-
Total	**17.70**	**17.53**	**19.91**	**323.49**	**42.57**	**421.19**	**371.34**	**5.34**	**366.00**	**49.86**

Table 5.37: Approved AFC of 9 LHPs of UJVN Ltd. for FY 2020-21

Generating Station	Depreciation (Rs.Cr.)	Interest on Loan (Rs. Cr)	Interest on working Capital (Rs. Cr.)	O&M Expenses (Rs. Cr.)	RoE (Rs. Cr.)	Gross Annual Fixed Cost (Rs. Cr.)	Gross AFC (UPCL) (Rs. Cr.)	Non-Tariff Income (Rs. Cr.)	Net AFC (UPCL) (Rs. Cr.)	Gross/Net AFC (HPSEB) (Rs. Cr.)
Dhakrani	0.60	0.55	1.40	24.12	1.13	27.81	20.86	0.39	20.47	6.95
Dhalipur	2.09	1.78	1.82	29.71	2.86	38.27	28.70	0.50	28.20	9.57
Chibro	2.28	1.94	4.13	69.31	6.62	84.28	63.21	1.18	62.04	21.07
Khodri	1.54	0.77	2.29	37.87	5.16	47.64	35.73	0.69	35.04	11.91
Kulhal	0.42	0.36	1.05	17.93	1.21	20.97	16.78	0.30	16.48	4.19
Ramganga	1.92	2.52	2.77	45.77	4.64	57.61	57.61	1.01	56.60	-
Chilla	1.58	2.15	3.41	55.79	8.17	71.10	71.10	0.54	70.56	-
MB-I	4.24	3.51	2.67	40.28	9.76	60.46	60.46	0.38	60.09	-
Khatima	8.26	9.09	1.64	18.69	7.98	45.66	45.66	0.37	45.29	-
Total	**22.93**	**22.69**	**21.17**	**339.47**	**47.54**	**453.80**	**400.11**	**5.34**	**394.77**	**53.69**

Table 5.38: Approved AFC of 9 LHPs of UJVN Ltd. for FY 2021-22

Generating Station	Depreciation (Rs.Cr.)	Interest on Loan (Rs. Cr)	Interest on working Capital (Rs. Cr.)	O&M Expenses (Rs. Cr.)	RoE (Rs. Cr.)	Gross Annual Fixed Cost (Rs. Cr.)	Gross AFC (UPCL) (Rs. Cr.)	Non-Tariff Income (Rs. Cr.)	Net AFC (UPCL) (Rs. Cr.)	Gross/ Net AFC (HPSEB) (Rs. Cr.)
Dhakrani	0.70	0.62	1.51	25.89	1.22	29.93	22.45	0.39	22.06	7.48
Dhalipur	3.61	3.12	2.02	31.60	4.25	44.60	33.45	0.50	32.95	11.15
Chibro	2.52	2.03	4.38	73.52	6.85	89.30	66.97	1.18	65.80	22.32
Khodri	1.73	0.87	2.43	40.19	5.34	50.57	37.92	0.69	37.24	12.64
Kulhal	0.48	0.40	1.11	19.02	1.26	22.28	17.82	0.30	17.52	4.46
Ramganga	2.30	2.87	2.97	48.97	5.02	62.13	62.13	1.01	61.12	-
Chilla	1.78	2.27	3.59	58.86	8.36	74.87	74.87	0.54	74.32	-
MB-I	6.78	6.66	2.98	42.39	12.24	71.05	71.05	0.38	70.68	-
Khatima	8.26	8.21	1.68	19.78	7.98	45.91	45.91	0.37	45.54	-
Total	**28.17**	**27.06**	**22.68**	**360.22**	**52.51**	**490.63**	**432.58**	**5.34**	**427.24**	**58.05**

The summary of Capacity Charge and Energy Charge Rate (ECR) for 9 LHPs for Third Control Period is as given in the Tables below:

Table 5.39: Approved Capacity Charge and Energy Charge Rate for 9 LHPs for FY 2019-20

Generating Station	Net AFC (UPCL) (Rs. Cr.)	Capacity Charge (UPCL) (Rs. Cr.)	Saleable Primary Energy (UPCL) (MU)	Energy Charge Rate (UPCL) (Rs./kWh)	Gross/Net AFC (HPSEB) (Rs. Cr.)	Capacity Charge (HPSEB) (Rs. Cr.)	Saleable Primary Energy (HPSEB) (MU)	Energy Charge Rate (HPSEB) (Rs./kWh)
Dhakrani	19.07	9.53	116.84	0.82	6.48	3.24	38.95	0.83
Dhalipur	23.47	11.73	143.00	0.82	7.99	3.99	47.67	0.84
Chibro	59.08	29.54	555.75	0.53	20.08	10.04	185.25	0.54
Khodri	33.28	16.64	256.16	0.65	11.32	5.66	85.39	0.66
Kulhal	15.61	7.81	122.26	0.64	3.98	1.99	30.57	0.65
Ramganga	52.77	26.39	308.82	0.85	0.00	0.00	0.00	0.00
Chilla	67.57	33.78	664.57	0.51	0.00	0.00	0.00	0.00
MB-I	49.79	24.89	392.23	0.63	0.00	0.00	0.00	0.00
Khatima	45.37	22.68	233.23	0.97	0.00	0.00	0.00	0.00
Total	**366.00**	**183.00**	**2792.86**	0.66	**49.86**	**24.93**	**387.81**	0.64

Table 5.40: Approved Capacity Charge and Energy Charge Rate for 9 LHPs for FY 2020-21

Generating Station	Net AFC (UPCL) (Rs. Cr.)	Capacity Charge (UPCL) (Rs.Cr.)	Saleable Primary Energy (UPCL)(MU)	Energy Charge Rate (UPCL) (Rs./kWh)	Gross/Net AFC (HPSEB) (Rs. Cr.)	Capacity Charge (HPSEB) (Rs. Cr.)	Saleable Primary Energy (HPSEB)(MU)	Energy Charge Rate (HPSEB) (Rs./kWh)
Dhakrani	20.47	10.24	116.84	0.88	6.95	3.48	38.95	0.89
Dhalipur	28.20	14.10	143.00	0.99	9.57	4.78	47.67	1.00
Chibro	62.04	31.02	555.75	0.56	21.07	10.54	185.25	0.57
Khodri	35.04	17.52	256.16	0.68	11.91	5.95	85.39	0.70
Kulhal	16.48	8.24	122.26	0.67	4.19	2.10	30.57	0.69
Ramganga	56.60	28.30	308.82	0.92	0.00	0.00	0.00	0.00
Chilla	70.56	35.28	664.57	0.53	0.00	0.00	0.00	0.00
MB-I	60.09	30.04	392.23	0.77	0.00	0.00	0.00	0.00
Khatima	45.29	22.65	233.23	0.97	0.00	0.00	0.00	0.00
Total	**394.77**	**197.38**	**2792.86**	**0.71**	**53.69**	**26.85**	**387.81**	**0.69**

Table 5.41: Approved Capacity Charge and Energy Charge Rate for 9 LHPs for FY 2021-22

Generating Station	Net AFC (UPCL)(Rs. Cr.)	Capacity Charge (UPCL) (Rs. Cr.)	Saleable Primary Energy (UPCL) (MU)	Energy Charge Rate (UPCL) (Rs./kWh)	Gross/Net AFC (HPSEB) (Rs. Cr.)	Capacity Charge (HPSEB) (Rs. Cr.)	Saleable Primary Energy (HPSEB)(MU)	Energy Charge Rate (HPSEB) (Rs./kWh)
Dhakrani	22.06	11.03	116.84	0.94	7.48	3.74	38.95	0.96
Dhalipur	32.95	16.47	143.00	1.15	11.15	5.57	47.67	1.17
Chibro	65.80	32.90	555.75	0.59	22.32	11.16	185.25	0.60
Khodri	37.24	18.62	256.16	0.73	12.64	6.32	85.39	0.74
Kulhal	17.52	8.76	122.26	0.72	4.46	2.23	30.57	0.73
Ramganga	61.12	30.56	308.82	0.99	0.00	0.00	0.00	0.00
Chilla	74.32	37.16	664.57	0.56	0.00	0.00	0.00	0.00
MB-I	70.68	35.34	392.23	0.90	0.00	0.00	0.00	0.00
Khatima	45.54	22.77	233.23	0.98	0.00	0.00	0.00	0.00
Total	**427.24**	**213.62**	**2792.86**	**0.76**	**58.05**	**29.03**	**387.81**	**0.75**

B. Maneri Bhali-II

Based on the analysis of all the heads of expenses of AFC, the Commission has approved the Annual Fixed Charges (AFC) for MB-II for the Third Control Period. The Commission to arrive at the Net AFC for MB-II has adjusted the Non-Tariff Income in the AFC of MB-II. The summary of Annual Fixed Charge, Capacity Charge and Energy Charge rate for MB-II for the Third Control Period is given in the Table below:

Table 5.42: Approved AFC, Capacity Charge and Energy Charge Rate for MB-II for Third Control Period

Year	Depreciation	Interest on Loan (Rs. Cr.)	Interest on working Capital (Rs. Cr.)	O&M Expenses (Rs. Cr.)	RoE (Rs. Cr.)	Gross Annual Fixed Cost (Rs. Cr.)	Non-Tariff Income (Rs. Cr.)	Net AFC (Rs. Cr.)	Capacity Charge (Rs. Cr.)	Saleable Primary Energy (MU)	Energy Charge Rate (Rs./kWh)
FY 2019-20	64.37	63.02	7.31	56.10	50.36	241.16	0.92	240.23	120.12	1,550.44	0.77
FY 2020-21	48.24	57.38	6.90	57.70	50.96	221.18	0.92	220.26	110.13	1,550.44	0.71
FY 2021-22	48.26	52.75	6.93	59.89	51.55	219.38	0.92	218.46	109.23	1,550.44	0.70

In accordance with the provisions of the Regulations, the secondary energy rate shall be equal to rate derived based on the original design energy and shall be applicable when the Saleable Primary Energy exceeds the Original Design Energy.

6 Commission's Directives

6.1 Compliance to the Directives Issued in Order dated 05.04.2010.

6.1.1 *Performance Improvement Measures*

The Commission in its Tariff Order dated 21.10.2009 and in its subsequent Orders gave directions to the Petitioner on the performance improvement measures by conducting a benchmarking study of its plants with other utilities like NHPC, SJVNL, etc. and explore further scope of improvement in technical losses and manpower rationalisation including incentive mechanism.

In compliance to the above direction, the Petitioner had submitted the benchmarking study Report and had also submitted the action taken as well as action plan on the basis of benchmarking study specifically with regard to manpower deployment & rationalization and reduction in planned maintenance days. Accordingly, the Commission in its MYT Order dated 05.04.2016 had directed the Petitioner to submit details of the measures taken towards manpower deployment, rationalization and data to support reduction in planned maintenance days and the same was submitted by the Petitioner within directed timeframe.

Further, during the tariff proceedings of APR Order for FY 2016-17, the Petitioner had submitted that it has already reduced downtime from annual maintenance from 60 days to 45 days and is further planning to reduce it below 35 days by maintaining proper spares inventory in order to reduce the downtime. The Commission on perusal of the planned outages/maintenance days proposed by the Petitioner for FY 2017-18, had observed that the planned outages/maintenance days for various LHPs for FY 2017-18 had not reduced to the optimum levels. In this regard, the Commission in its Tariff Order dated 29.03.2017, had directed the Petitioner to submit details of the measures to support reduction in planned maintenance days as under:

"The Commission is of the view that UJVN Ltd. being a commercial entity should focus on reducing its down-time by reducing its planned maintenance periods by adopting best practices of other generating companies such as NHPC, SJVNL etc. Therefore, the Commission again directs the Petitioner to submit details of the measures to support reduction in planned maintenance days within 3 months from date of this

Order."

In compliance to the above direction, the Petitioner vide its letter dated 17.11.2017 submitted that all the power plants of UJVN Ltd. have become very old and efforts are being made to reduce the maintenance period. Further, the Petitioner submitted that it is undertaking RMU of the old power plants in sequential manner, and after completion of RMU, the maintenance period is likely to be reduced. The Commission has taken note of the Petitioner's reply.

6.1.2 ***Transfer Scheme***

The Commission in its Tariff Order dated 05.04.2010 and in its subsequent Orders gave suitable directions to expedite finalisation of transfer scheme. In compliance, the Petitioner in its APR Petition for FY 2014-15, submitted the initiatives taken by it to finalize the transfer scheme. Accordingly, the Commission in its APR Order dated 10.04.2014 had directed the Petitioner as under:

"The Commission directs UJVN Ltd. that till the time transfer scheme is finalised it should submit the quarterly progress report to the Commission"

In compliance to the above direction, the Petitioner had submitted the Quarterly Progress Report vide letter dated 04.08.2015 stating that a Consultant was appointed to determine the value of assets and liabilities proposed to be transferred from UPJVNL to UJVN Ltd. and also to finalise the transfer scheme with UPJVNL, the final outcome of the same has not been brought before the Commission. Therefore, the Commission in its MYT Order dated 05.04.2016 had directed the Petitioner as under:

"...the Commission again directs UJVN Ltd. that till the time transfer scheme is finalised it should continue to submit the updated quarterly progress report to the Commission."

In compliance to the above direction, the Petitioner had submitted that there is no disagreement on the value of current assets and current liabilities but UPJVNL emphasized mainly on acceptance of LIC Loan of Rs. 352.59 Crore, GPF trust liabilities of Rs. 42.63 Crore and CWIP of Rs. 128.55 Crore on account of Interest of Loan etc. which has already been disagreed by UJVNL and informed to them. Further, with regard to LIC loan of Rs 352.59 Crore, the Petitioner had submitted that since the amount of loan transferred to the State of Uttarakhand was not utilized for MB-II HEP, as such GoU had not consented to accept the said liability and decided to contest the transfer of the said loan to GoU in the APEX Court. The Petitioner further submitted that simultaneously the matter was taken up by Govt. of Uttarakhand with Central Govt. for review of LIC loan allocation. Moreover, with regard to remittances of GPF liabilities of Rs. 135.78 Crore, the Petitioner had submitted that approval for filing the writ petition had been granted by UJVNL Employee Trust (GPF) and drafting of the writ petition was under process.

In this regard, the Commission in its Tariff Order dated 29.03.2017 had directed the Petitioner as follows:

> *"...the Commission directs the Petitioner to rigorously follow-up with the concerned authorities for finalization of transfer scheme alongwith issues of GPF trust and LIC loan and submit updated quarterly progress report to the Commission."*

In compliance of the above direction, the Petitioner had submitted the Quarterly Progress Report for the first quarter vide its letter dated 10.08.2017 and second quarter vide its letter dated 27.10.2017, wherein, the Petitioner submitted that the issues regarding transfer scheme viz. (a) liability of LIC loan of Rs. 352.59 Crore regarding MB-II LHP and (b) remittance of GPF liabilities of Rs. 135.78 Crore were to be finalized. The Petitioner in compliance to the above directive submitted that a meeting was held between Hon'ble Chief Ministers of Uttarakhand and Uttar Pradesh on April 10, 2017 on division of assets and liabilities between State of Uttarakhand and Uttar Pradesh and therein matters pertaining to UJVN Ltd. and UPJVNL were discussed. Also, further meeting is scheduled to be held between Chief Secretary of both the States in near future. Further, the Petitioner vide letter no. 276/UJVNL/D(F)/G-4 dated 07.07.2017 apprised to the Secretary Energy (Govt. of Uttarakhand) for remittance of the outstanding amount of GPF liabilities of Rs. 146.42 Crore as on 30.6.2017. The Commission took note of the submissions of the Petitioner and directed Petitioner in its Tariff Order dated 21.03.2018, to closely follow up with issue and submit quarterly status report to the Commission. The Commission also pointed out that there has been an inordinate delay in the finalization of the transfer scheme which would be attributable to the Petitioner, hence, any consequential claim arising due to finalization of the transfer scheme would be considered on merits by the Commission without any carrying cost on the same.

In compliance of the above direction, the Petitioner vide its letter dated 08.10.2018 submitted the summary of recent progress, wherein following has been stated:

"1. *On 10th day of April, 2017, a meeting was held between Hon'ble Chief Minister of Uttarakhand and Uttar Pradesh on division of assets & liabilities between State of Uttarakhand and Uttar Pradesh. Matters pertaining to UJVNL and UPJVNL were also discussed. The only two pending points pertaining to the value of division of assets and liabilities of UJVNL and UPJVNL were discussed during the Meeting are summarized below:-*

- *Loan taken by UPSEB from LIC for ManeriBhali Stage-II Project.*
- *Remittances of GPF liabilities.*

However, few other issue as detailed below were also discussed in the meeting

- *Joint control of UJVNL and UP (ID) for smooth functioning of Ram Ganga Dam, Sharada power channel and Upper Ganga power channel for Pathri and Mohd.Pur Power House.*
- *Claim on ownership and management of Khodri Power House by UPJVNL.*
- *Claim on 50% of energy generation by Kalagarh Power House by UPJVNL*

2. *On 08.04.2018, a meeting was held between Chief Secretary of both states for division of assets & liabilities between State of Uttarakhand and Uttar Pradesh. Matters between UJVNL and UPJVNL were also discussed.*
3. *Recently a meeting was held on 28.06.2018 at Lucknow, between Chief Secretary of both states on the above matter. In the meeting, it is agreed that the Government of UP will remit 90% of the GPF liabilities as on 09.11.2001 to Uttarakhand and the matter of LIC loan and Ownership and management of Khodri Power house be referred to the Central Government for final decision.*

As detailed above, issue of finalization of Transfer Scheme is at final stage of settlement."

The Commission has noted the submissions of the Petitioner and further **directs the Petitioner to closely follow up with issue and submit quarterly status report to the Commission. However, the Commission would like to point out that there has been an inordinate delay in the finalization of the transfer scheme which is attributable to the Petitioner, hence, any consequential claim arising due to finalization of the transfer scheme shall be considered on merits by the Commission without any carrying cost on the same.**

6.2 Compliance to directives issued in Order dated 10.05.2011

6.2.1 *Colony Consumption*

In compliance of the directions issued in the previous Tariff Orders, the Petitioner vide letter dated 29.07.2015 submitted that energy meters have been installed for all the connections to the respective colonies and thus 100% metering has been ensured.

Accordingly, the Commission in its MYT Order dated 05.04.2016 directed the Petitioner as follows:

"The Commission has taken note of the same and directs the Petitioner to ensure proper accounting of the energy consumed by the employees and furnish the annual details alongwith the tariff Petition."

In response, the Petitioner vide its reply letter dated 07.12.2016 had submitted the energy account statement for all the 10 LHPs and DDD Dakpathar. Accordingly, the Commission in its Tariff Order dated 29.03.2017 had directed the Petitioner as under:

"Since, 100% metering of its employees has been done, therefore, the Petitioner is directed to ensure the meter reading of each employee on monthly basis and keep proper record of the same and submit the colony-wise consumption of the employees alongwith the next tariff filing."

In compliance to the above direction, the Petitioner had submitted the actual energy accounts for FY 2016-17 and FY 2017-18 (from April, 2017 to September, 2017) of each Power House and after examination of the submission, the Commission in its Tariff Order dated 21.03.2018 had directed as under:

"... the Commission directs the Petitioner to submit the colony-wise consumption of the employees on monthly basis along with the next tariff filing."

In compliance to the above direction, the Petitioner has submitted the data/information only for Chilla, MB-I, MB-II, Ramganga and Khatima HEPs, however, data/information pertaining to the HEPs of Yamuna Valley is still pending.

In this regard, the Commission directs the Petitioner to ensure the compliances of the Commission's directions in totality and further directs to submit colony-wise consumption of employees on monthly basis along with the next tariff filing.

6.3 Compliance to the Directives Issued in MYT Order dated 06.05.2013

6.3.1 *Design Energy*

With respect to the Design Energy of 9 LHPs, earlier the Petitioner in its first MYT Petition submitted that the DPRs for existing 9 LHPs were not available with it and therefore, expressed its inability to submit the same. The Commission, accordingly, directed the Petitioner in its MYT Order dated 06.05.2013 as follows:

"...the Commission directs UJVN Ltd. to arrange the Detailed Project Report for each of its hydro generating stations and submit the same to the Commission along with first Annual Performance Review (APR) Petition for the Control Period."

In response, the Petitioner submitted that since the DPRs of the 9 LHPs were not available with UJVN Ltd., it had requested the Head of Department, Irrigation Department, Uttarakhand vide letter No. 1240 & 1906 dated 10.06.2013 & 26.08.2013 respectively and Engineer-in-Chief & Head of Department, Irrigation Department–Uttar Pradesh vide letter no. 1247/UJVNL/D(O)/Q-5 dated 11.06.2013, to provide copies of original DPRs of the Power Stations of UJVN Ltd., however, no response was received. In this regard, the Commission in its APR Orders dated 10.04.2014 and 11.04.2015, accordingly, directed as follows:

"The Commission ...directs the Petitioner to pursue the above matter with appropriate authorities to arrange the DPRs for each of its hydro generating stations and submit the quarterly progress report to the Commission."

As the Petitioner did not submit any status report, the Commission in its MYT Order dated 05.04.2016 had directed the Petitioner as follows:

"The Commission in this regard, again directs the Petitioner to nominate/depute senior officers to pursue the above matter personally with appropriate authorities to arrange the DPR for each of its 9 Large Hydro Generating Stations by August, 2016 positively."

In compliance to this, the Petitioner vide its letter no. 4087 dated 27.08.2016 had submitted the DPRs for two of its Hydro Power Stations, namely Chibro and Khodri LHPs with the comment that "*...we are not certain whether the DPRs are final editions or not…*".Accordingly, the Commission vide its Tariff Order dated 29.03.2017 had directed the Petitioner as follows:

"In this regard, the Commission again directs the Petitioner to nominate/depute senior officers to pursue the above matter personally with appropriate authorities to arrange the DPR for each of its 9 Large Hydro Generating Stations by 30.09.2017 positively.

In compliance to the above direction, the Petitioner vide its letter dated 17.11.2017 submitted that efforts were being made to trace out the original DPRs of old LHPs of UJVN Ltd. However, no DPR except Chibro and Khodri could be found which have already been submitted to the Commission. The Petitioner further submitted that in case the DPR of any of the other plants becomes available the same shall be submitted with the Commission. On examination of the aforesaid submission, the Commission directed the Petitioner to nominate/depute senior officers to pursue the above matter personally with appropriate authorities to arrange the DPR for each of its 9 Large Hydro Generating Stations along with the next Tariff Petition.

In compliance to the above direction, the Petitioner reiterated its earlier submission that efforts are being made to trace out the Original DPRs of old LHPs of UJVN Ltd. However, no DPR except Chibro and Khodri could be found which have already been submitted to the Commission. In case the DPR of any of the other plants becomes available the same shall be submitted with the Commission.

The Commission observed that the Petitioner is reiterating its reply on the issue for last 3 years continuously, meaning thereby no progress has been made at the Petitioner's end. Therefore, **the Commission again directs the Petitioner to nominate/depute senior officers to pursue the above matter personally with appropriate authorities to arrange the DPR for each of its 9 Large Hydro Generating Stations along with the next Tariff Petition.**

6.4 Directives specifically issued in Meeting dated 04.09.2013

6.4.1 *Status of upcoming projects*

The Commission in its previous Tariff Orders had been directing the Petitioner to submit quarterly progress report of the upcoming projects, without fail.

In compliance to the above, the Petitioner submitted the quarterly progress report from time to time. In line with the **same the Petitioner is directed to submit the quarterly progress report on status of all upcoming projects without fail**.

6.4.2 *Utilisation of Expenses approved by the Commission*

As per directions issued by the Commission in the previous Tariff Orders, UJVN Ltd. has been submitting the Annual Budget after approval from Audit Committee / BoD for the ensuing year for each Plant. In line with the same the **Commission further directs the Petitioner to submit annual budget for future financial years by 31st May of the respective financial year.**

6.5 Compliance to the Directives Issued in Tariff Order dated 29.03.2017

6.5.1 *Financial Relief towards restoration of damage caused due to Natural Calamity*

The Commission in its Tariff Order dated 29.03.2017 had considered the funding of additional capitalisation of around Rs. 40.37 Crore as grant as the same was used to restore the damage caused due to natural calamity which occurred in FY 2013-14. In this regard, the Commission had directed the Petitioner as follows:

> *"... The Commission has therefore considered the funding of the said additional capitalisation for FY 2015-16 as grants and directs the Petitioner to pursue the matter with the GoU and submit the quarterly status report to the Commission."*

In this regard, no reply was received from the Petitioner, and therefore, the Commission in TVS held on 04.01.2018 directed the Petitioner to submit the details of the amount received by GoU on account of disaster relief for MB-II. In reply, the Petitioner in its letter dated 15.01.2018 submitted that it has received Rs. 125.52 Crore on account of disaster relief of MB-II and the utilisation certificates for Rs. 67.82 Crore had been given to Government of Uttarakhand.

On examination of the above submissions, the Commission directed the Petitioner to provide year-wise details of works executed from the aforesaid grant amount of Rs. 125.52 Crore with details of amount capitalised/proposed to be capitalized in each financial year and also submit the copies of the said utilization certificates. In response to the same, the Petitioner submitted its reply vide letter dated 08.03.2018 and after analysis of the said submission, the Commission directed the Petitioner to submit the details of financial year-wise expenditures made against the grant amount received from GoU/GoI for respective works at the time of filing of True Up of FY 2017-18 and FY 2018-19.

In compliance to the above direction, the Petitioner has submitted the details of Financial year-wise expenditure made against the grant received from GoU/GoI for respective works during the True Up proceedings of FY 2017-18. The Commission took note of the same and has appropriately dealt with the expenditure incurred on this account in the Truing-up proceedings for FY 2017-18. Further, **the Commission directs the Petitioner to submit the details of financial year-wise expenditures made against the grant amount received from GoU/GoI for respective works at the time of filing of True Up of FY 2018-19.**

6.5.2 ***RMU works of Khatima LHP***

The Petitioner in its Petition for APR for FY 2016-17 had submitted that it had incurred capitalisation of Rs. 49.77 Crore in FY 2016-17 (upto December 2016) and Rs. 49.66 Crore in January 2017 under RMU and other civil works in case of Khatima LHP. The Commission in its investment approval dated 17.05.2015 has given in-principle approval of Rs. 256 Crore towards RMU works subject to prudence check. In this regard, the Commission in its Tariff Order dated 29.03.2017 had directed the Petitioner as follows:

> *"The Commission is of the view that the amount so far claimed till FY 2016-17 is well within the approval however, since the final completion cost is yet to be finalised, the Commission shall carry out detailed prudence check of RMU expenses once audited cost is available during the truing up of FY 2016-17. Accordingly, the Commission directs the Petitioner to submit the audited RMU expenses as on date of completion of RMU works along with details of de-capitalisation in respect of the same as soon as the same is available including quantity. The Petitioner is also directed to submit the details of scrap available on de-capitalisation of old plant and machinery and expected time frame in which same will be disposed."*

In compliance to the above direction, the Petitioner in its letter dated 14.12.2017 had submitted the copy of the order dated 24.06.2017 placed by UJVN Ltd. to M/s N. A. Steel, Saharanpur for sale of 1260 items of old plant and machinery scrap amounting to Rs. 3.35 Crore received for disposal after RMU of Khatima LHP. The copy of the order was containing the details of such 1260 items with the clause of expected time frame for disposal of scrap within 90 days from the date of order. Accordingly, the Commission considered an additional non-tariff income of Rs. 3.35 Crore in case of Khatima LHP in FY 2016-17.

Further, with regard to completion of entire scope of works of Khatima RMU, the

Commission in its Tariff Order dated 21.03.2018 directed the Petitioner to complete all the works covered under RMU of Khatima LHP latest by the cut-off date, i.e. 31.03.2019, beyond which no expense (including IDC) in this regard would be allowed**.**

In compliance to this, the Petitioner has submitted that it is making its all efforts to comply with the above directive of the Commission.

However, **the Commission again directs the Petitionerto complete all the works covered under RMU of Khatima LHP latest by the cut-off date, i.e. 31.03.2019, beyond which no expense (including IDC) in this regard would be allowed.**

6.5.3 ***Impact of VII Pay Commission***

The Commission in its Tariff Order dated 29.03.2017 had considered 15% towards the impact of the VII Pay Commission for FY 2016-17 as submitted by UJVN Ltd. to estimate the net salary for FY 2016-17 and the same was escalated in accordance with the Regulations considering the growth factor and CPI inflation to arrive at the employee expenses for FY 2017-18. In this regard, the Commission in its Tariff Order dated 29.03.2017 had directed the Petitioner as follows:

"...the Commission directs 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"

In compliance to the above direction, the Petitioner vide its letter dated 17.11.2017 had submitted the status/compliance report in which it had been submitted that the GoU had issued order for VII Pay Commission, however, the same was to be issued by UJVN Ltd. and therefore, no payment made. Further, the Petitioner vide its letter dated 09.03.2018 submitted that the arrears of VII Pay Commission is Rs. 42.80 Crore till 31.12.2017, out of which Rs. 12.50 Crore arrears had been paid during FY 2017-18 and Rs. 30.30 Crore was to be paid in FY 2018-19. In view of the above, the Commission observed that the Petitioner did not submit the detailed station wise breakup of such arrears. Accordingly, the Commission in the Tariff Order dated 21.03.2018 had not considered the impact of arrears of VII Pay Commission and directed the Petitioner to maintain Plant-wise separate details of the amount paid as arrears to its employees on account of implementation of the recommendations of VII Pay Commission.

The Petitioner has submitted that it is complying with the directive of the Commission. The Commission took note of the same and further **directs the Petitioner to maintain Plant-wise**

separate details of the amount paid as arrears to its employees on account of implementation of the recommendations of VII Pay Commission.

6.5.4 *Non Tariff Income*

The Commission in its Tariff Order dated 29.03.2017 observed that most of the 9 LHPs are under RMU which involves replacement of old and obsolete equipment which will be eventually disposed off as it gets de-capitalised. In this regard, the Commission in its Tariff Order dated 29.03.2017 had directed the Petitioner as follows:

> *"In this regard, the Commission directs the Petitioner to maintain proper accounting with regard to disposal of such assets including sale of scrap and submit the same separately along with subsequent tariff filings."*

In compliance to the above direction, the Petitioner in its letter dated 14.12.2017 had submitted that an order was issued to M/s N.A. Steel, Saharanpur amounting to Rs. 3.35 Crore for sale of 1260 items of scrap material lying at Sharda Power House, Lohiahead (Khatima) of UJVN Ltd. Further, the Petitioner submitted that it would maintain proper accounting with regard to disposal of old plant and machinery scrap including sale of scrap and the same shall be informed accordingly. The Commission considered an additional non-tariff income of Rs. 3.35 Crore in case of Khatima LHP. Thereafter, the Commission again directed the Petitioner to maintain proper accounting with regard to disposal of such assets including sale of scrap and submit the same separately along with subsequent tariff filings.

In compliance to the above, the Petitioner has submitted that it is complying with the said directive of the Commission. The Commission took note of the same and further **directs the Petitioner to maintain proper accounting with regard to disposal of such assets including sale of scrap and submit the same separately along with subsequent tariff filings.**

6.6 Compliance to the Directives Issued in Tariff Order dated 21.03.2018

6.6.1 *Expenses claimed under Major Overhauling*

Earlier, the Commission in its Tariff Order dated 21.03.2018 had observed that UJVN Ltd. was having different approach for claiming expenses under major overhauling for different plants. In this regard, the Commission expressed its view that the nature of expense is independent of the values of expense being incurred and thus the expenses should be booked under the respective head of ARR under which it should actually fall. Accordingly, the works related to Major overhaul claimed under additional capitalization were shifted to R&M expenses of UJVN Ltd. and the Petitioner was directed to comply with the same philosophy in future claims as well.

In compliance to this, the Petitioner has simply submitted that it has taken note of the directive of the Commission, however, it has been observed that the Petitioner in its instant Petition has not adopted the aforesaid philosophy rather submitted the Petition in accordance with its old approach. Hence, the Commission shifted the works related to major overhaul claimed under additional capitalization to R&M expenses as detailed in Chapter 4 of this Order **and further, directs the Petitioner to comply with the same philosophy in future claims as well.**

6.6.2 ***Balance Capital Works of MB-II HEP***

The Commission in its Tariff Order dated 05.04.2016 had allowed expenses of Rs. 211.72 Crore, however, the Petitioner in its Tariff Petition for FY 2017-18 had revised the projection to Rs. 238.62 Crore to be incurred till FY 2018-19. The Petitioner in the current Tariff Petition has again revised the projection to Rs. 252.07 Crore till FY 2018-19. The Commission has observed that the Petitioner has incurred Rs. 217.05 Crore (i.e. Rs. 190.06 Crore upto 31.03.2016 + Rs. 26.99 Crore in FY 2016-17) upto FY 2016-17 and is projecting to incur total Rs. 252.07 Crore by FY 2018-19 against balance capital works of MB-II HEP. The Commission was of the view that the Petitioner is adopting a callous approach and is deferring important works like testing of surge shaft, which is certainly not in the interest of UJVN Ltd. Therefore, the Commission had taken a serious note of the same and directed the Petitioner to complete all the works covered in the Petition of balance capital works of MB-II HEP latest by 31.03.2019, beyond which no expense (including IDC) in this regard would be allowed.

Though the Petitioner has submitted that it has taken a sincere note on the directive of the Commission, however, the Petitioner in its current Tariff Petition has again revised the projection to Rs. 259.67 Crore till FY 2018-19 against the balance capital works of MB-II as discussed in detail in Chapter 4 of this Order. The Commission further, **directs the Petitioner to complete all the works covered in the Petition of balance capital works of MB-II HEP latest by 31.03.2019, beyond which no expense (including IDC) in this regard would be allowed.**

With regard to the direction issued for submitting the details of Financial Year-wise expenditures made against Rs. 125.52 Crore received as grant from GoI through GoU under disaster during 2013 for MB-II Project, the Petitioner has submitted that utilisation certificate for the amount Rs. 67.82 Crore has been submitted to GoU while utilisation certificate for the amount Rs. 57.70 Crore has not been given till date and the same shall be given after re-conciliation. In this regard, **the Commission directs the Petitioner to complete the works against Rs. 57.70 Crore and submit the copy of utilisation certificate alongwith the next Tariff filing.**

6.6.3 *Observation on abnormal increase in Additional Capital Expenditure in certain LHPs*

While examining the additional capitalization details for FY 2016-17, it had been observed that there were substantial increase in the expenditures claimed by the Petitioner against additional capitalization w.r.t. the claims made during previous years. The Commission scrutinized the expenditures in detail and also conducted a Sample Study of procurement process being followed by the respective cost centres for FY 2016-17. Accordingly, on the basis of the analysis, the Commission observed that the prices claimed by the Petitioner in its additional capitalisation were on the higher side as that of the prevailing market rates/schedule of rates of power sector utilities of the State (UPCL & PTCUL), and therefore, the Commission directed the Petitioner to:-

"

(i) Frame its Schedule of Rates (SoR) for common capital items inline with the SoR of other power utilities in the State.

(ii) Procure the common items of capital nature through Centralised Procurement System and strictly adhere to the procurement Rules of the GoU/ Rules framed by the Petitioner (if any).

(iii) Review the working of its internal audit system specifically for checking the anomalies in procurements and take corrective action for strengthening the internal audit wing.

An action taken report on the above is required to be submitted to the Commission latest by 30.06.2018."

In compliance to the above, the Petitioner has submitted that a committee has been constituted by UJVN Ltd. vide O.M. No. 336 dated 17.04.2018 for identification of the common items of capital nature/normal (O&M) and preparing Schedule of Rates (SoR). After collection of data, the committee has prepared a report and submitted the same to the Management for its approval. The approval of the report from the competent authority (BoD) is under process and after accordance of the approval from BoD, compliance of the directive shall be submitted to the Commission.

For procurement of common items through centralized procurement system, the Petitioner has submitted that an office memorandum has been issued vide reference No. 743 dated 20.06.2018 for listing of the items to be procured through centralized procurement system. Further, the Petitioner has submitted that as per direction of the Commission, the identified common items/listed items are being procured through the Petitioner's centralize material management unit i.e. MM & CM, Dehradun.

With regard to the working of internal audit system in the Petitioner's Company, the Petitioner has submitted that it is continuously making efforts to strengthen its Internal Audit System and towards this it has deployed additional manpower in the internal audit unit and responsibility has been assigned to the General Manager (Finance) for review, observation and deliberation of works pertaining to Internal Audit Unit.

The Commission has taken note of the Petitioner's reply.

6.6.4 ***Views of State Advisory Committee***

Earlier, on the suggestion made by the Members of State Advisory Committee during the meeting held on 05.03.2018, the Commission, in its Order dated 21.03.2018, directed UJVN Ltd. to actively pursue the following issues with Appropriate Government/Competent Authorities/ Hon'ble Courts and apprise the Commission from time to time.

(i) Resolve the issue related to MB-II Generation specifically with regard to the Dam height of 1108 m which has already been allowed by the District Administration.

(ii) Expedite the completion of Civil Works related to Khatima RMU.

(iii) Additional allocation from THDC in the Case pending before Hon'ble Supreme Court.

In compliance to the same, the Petitioner has submitted that it is making its all endeavours for ensuring the compliance of the directives of the Commission.

In continuation to the directions issued in the Commission's Order dated 21.03.2018, the

Commission, at relevant para of this Order, has given the timeline upto 31.03.2019 for completing the balance works of MB II and Khatima HEPs.

6.7 New Directives Issued

6.7.1 *Allocation of Common Expense*

As discussed in Chapter 3 of this Order, it is observed that UJVN Ltd., is planning to add 106.675 MW of Solar Power Plants. **In this regard, UJVN Ltd., is cautioned to take extreme care with regard to BOO/BOOT Schemes and it should safeguard its commercial interests. Further, UJVN Ltd., is directed to ensure that expenses incurred on account of power evacuation should be borne by the developer, if applicable and any financial implication on account of solar should not be included in its ARR of respective HEPs.**

As discussed in Chapter 5 of this Order, it is observed that UJVN Ltd., has not claimed expenses related to Solar Business separately. The Commission as discussed in Chapter 4 of this order is of the view that the Solar Business is a new business vertical for UJVN Ltd., the expenses incurred for the Solar Business should be treated separately from the expenses for 9 LHPs and MB-II Generating station. **Therefore, the Commission directs the Petitioner to submit the details of expenses allocated to Solar Business during FY 2018-19 and approach for allocation of Common expenses for Solar Power Plant during truing up of FY 2018-19 as it is a new business vertical for UJVN Ltd**.

6.7.2 *DRIP Financing*

As discussed in Chapter 4 of this Order, the Commission observed that the financing pattern of the works covered under DRIP scheme is still unclear as details of loan/grant and rate of interest for the loan amount has not been furnished to the Commission. Therefore, t**he Commission directs the Petitioner to come up with the firm financing details for the works covered under DRIP scheme at the time of filing of next Tariff Petition and the Commission may consider the same, subject to prudence check. Further, the Petitioner is also directed to submit plant-wise details of works done/proposed under DRIP scheme alongwith capitalization latest by 30.06.2019.**

The AFC of Third Control Period shall be recoverable in accordance with the mechanism specified in UERC Tariff Regulations, 2018. The Tariffs approved in this Order shall be applicable from 01.04.2019 and shall continue to apply till further Orders of the Commission.

(Subhash Kumar)
Chairman

7 Annexure

7.1 Annexure 1: Public Notice on MYT Petition for FY 2019-20 to FY 2021-22

UJVN LIMITED

"Ujjwal", Maharani Bagh, GMS Road, Dehradun-248006

CIN no. U40101UR2001SGC025866

UJVNL

PUBLIC NOTICE

Inviting Comments on Petitions filed by UJVN Limited before the Uttarakhand Electricity Regulatory Commission for Determination of Generation Tariff for its 10 large hydro generating stations for FY 2019-20 to FY 2021-22

Salient Points of the ARR/Tariff Petition

1. UJVN Limited, a Government owned generating company, has filed the petitions for the determination of generation tariff for the Third Control Period from FY 2019-20 to FY 2021-22 & Annual Performance Review of FY 2018-19 for its 10 Large Hydro Generating Stations before the Uttarakhand Electricity Regulatory Commission . Through the above petitions, UJVN Ltd. has also proposed truing up of its expenses for FY 2017-18 for its 9 old hydro generating stations & Maneri Bhali-II HEP. The salient features of the tariff petitions filed by UJVN Ltd. for its 10 large hydro generating stations are given in the Table below:

AFC (Rs. Crore)							
	FY 2017-18 (True-up)		FY 2018-19 (APR)		FY 2019-20	FY 2020-21	FY 2021-22
Station	Approved (T.O. dt. 29.03.2017)	Claimed	Approved (T.O. dt. 21.03.2018)	Revised Estimated by UJVN Ltd.	Proposed by UJVN Ltd.	Proposed by UJVN Ltd.	Proposed by UJVN Ltd.
Dhakrani	21.65	25.23	17.63	23.79	33.20	47.20	55.06
Dhalipur	31.45	23.22	31.90	28.41	35.93	47.66	57.50
Chibro	63.93	68.99	60.37	74.15	79.74	91.26	96.59
Khodri	33.96	40.74	33.17	41.60	45.68	49.42	51.32
Kulhal	16.46	17.34	12.51	17.06	22.10	38.64	42.91
Ramganga	33.31	44.02	31.47	45.87	53.47	58.76	64.30
Chilla	58.23	61.56	62.23	64.19	74.23	95.62	111.14
MB-I	57.24	59.67	41.67	58.05	65.88	84.61	94.16
Khatima	42.98	43.00	43.57	43.99	50.84	55.57	61.51
MB-II	255.95	324.77	235.29	310.01	304.04	280.07	281.77
Total	**615.16**	**708.54**	**569.81**	**707.14**	**765.12**	**848.81**	**916.26**

2. UJVN Ltd. has proposed **Rs. 93.38** Crore towards True Up for FY 2017-18 excluding the impact of sharing of gain & losses and carrying cost.
3. UJVN Ltd. has proposed an increase of about **50.66%** for FY 2019-20 including claim of True-up of FY2017-18 (excluding impact of sharing of gain & losses and carrying cost). In case the entire claim of UJVN accepted by the Commission, an additional hike of around **2.43%** in consumer tariff shall be required over and above the hike proposed by UPCL.
4. Detailed proposals as submitted by UJVN Ltd. can be seen free of cost on any working day in the Commission's office or at the office of UJVN Ltd., "UJJWAL", Maharani Bagh, GMS Road, Dehradun. Relevant extracts can also be obtained from the above mentioned office of UJVN Ltd.
5. The proposals filed by UJVN Ltd. are also available at the website of the Commission (www.uerc.gov.in) and at the UJVN Ltd.'s website (www.uttarakhandjalvidyut.com).
6. Objections/suggestions are invited from the consumers and other stakeholders on the above proposals. These 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., P.O. Majra, Dehradun-248171 or through e-mail to secy.uerc@gov.in as a statement of objections or comments with copies of the documents and evidence in support thereof so as to reach the Secretary by **31.01.2019**.

पत्रांक: 742 दिनांक: 18.12.2018

"Save Electricity in the Interest of Nation"

7.2 Annexure 2: Public Notice on Business Plan for FY 2019-20 to FY 2021-22

UJVNL

UJVN LTD.

H.O.: "UJJWAL", Maharani Bagh, GMS Road, Dehradun-248006
Telephones: 0135-2763508, 2763808 & Fax: 2763508 ISO 9001:2008 Certified
CIN No. 40101UR2001SGC025866 Website : www.ujvnl.com

RO No.: 743/UJVNL

Date: 18-12-2018

Public Notice

Inviting Comments on Petition filed by UJVN Limited for approval of the Business Plan for FY 2019-20 to FY 2021-22

1. UJVN Limited, a Government owned company, has filed the Petition for approval of its Business Plan for FY 2019-20 to FY 2021-22 giving details of the activities proposed to be carried out by it during this Control Period.
2. Detailed proposals as submitted by UJVN Ltd. can be seen free of cost on any working day at the Commission's office at Uttarakhand Electricity Regulatory Commission, **"Vidyut Niyamak Bhawan", Near ISBT, Majra, Dehradun (Uttarakhand)** or at the office of UJVN Ltd., "UJJWAL", Maharani Bagh, GMS Road, Dehradun. Relevant extracts can also be obtained from the above mentioned office of UJVN Ltd.
3. The proposals filed by UJVN Ltd. are also available at the website of the Commission (www.uerc.gov.in) and at UJVN Ltd's website (www.uttarakhandjalvidyut.com).
4. Responses/suggestions, if any are sought from all consumers and other stakeholders on the above proposals. Responses may be sent to the Secretary, Uttarakhand Electricity Regulatory Commission, either in person, or by post at Uttarakhand Electricity Regulatory Commission, **"Vidyut Niyamak Bhawan", Near ISBT, Majra, Dehradun (Uttarakhand)** or through e-mail to secy.uerc@gov.in as a statement of objections or comments with copies of documents and evidence in support thereof so as to reach the Secretary, UERC by 31.01.2019.

"बिजली का बर्बादीपूर्ण उपयोग न करें"

7.3 Annexure 3: List of Respondents

Sl. No.	Name	Designation	Organization	Address
1.	Sh. Pankaj Gupta	President	Industries Association of Uttarakhand	Mohabbewala Industrial Area, Dehradun- 248110
2.	Sh. Pawan Agarwal	Vice-President	Uttarakhand Steel Manufacturers Association	C/o Shree Sidhbali Industries Ltd., Kandi Road, Kotdwar, Uttarakhand
3.	Sh. Munish Talwar	Head, Electrical and Instrumentation	M/s Asahi India Glass Ltd.	Integrated Glass Plant, Village-Latherdeva Hoon, Manglaur-Jhabrera Road, P.O. Jhabrera, Tehsil Roorkee, Distt.- Haridwar
4.	Sh. Vijay Singh Verma	-	-	Village-Delna, Post-Jhabrera, Distt.- Haridwar

7.4 Annexure 4: List of Participants in Public Hearings

List of Participants in Hearing at Srinagar on 29.01.2019

Sl. No.	Name	Designation	Organization	Address
1.	Sh. Darshan Singh Bhandari	-	-	Near Nagaraja Mandir, Village Srikot, Gangnali, Srinagar Garhwal
2.	Sh. Y.S. Panwar	-	-	Ramakunj, Srikot, Gangnali, Srinagar Garhwal
3.	Sh. Chandi Prasad	-	-	Naur Kinkleshwar, Chauras, Tehsil & Distt. Tehri Garhwal
4.	Sh. Kavindra Singh Bisht	-	-	1148, Indira Nagar Colony, P.O. New Forest, Dehradun-248006
5.	Sh. Mohan Singh Negi	-	-	Village-Mandhi Chauras, P.O : Kinkleshwar, Vikaskhand Kirtinagar, Distt. Tehri Garhwal
6.	Sh. Dhirendra Singh Rawat	-	-	Village-Odda, Block-Koti, P.O. Khandiyusain, Pauri Garhwal
7.	Sh. Maatbar Singh Negi	-	-	Mohalla Kinkleshwar, Near Bank of India, Distt. Pauri Garhwal
8.	Sh. Birendra Singh Negi	Chairman	Industrial Development Association	C/o Pindar Tyre Retreading, Simli-246474, Distt. Chamoli
9.	Sh. Kamal Rawat	-	-	P.O. Khandah, Srinagar Garhwal
10.	Sh. Sanjay Jain		Tropical Dairy	GIC Road, Srinagar Garhwal
11.	Sh. Madan Mohan Nautiyal	-	-	GIC Road, Srinagar Garhwal
12.	Sh. Dayal Singh Rawat	-	-	Manichauras, P.O. Kinkleshwar, Tehri Garhwal
13.	Sh. Uday Ram Lakheda	-	-	Nursery Road (Milan Kendra), Srinagar Garhwal
14.	Sh. Mahendra Pal Singh Rawat	-	-	Village-Sunaar Gaon, Near Daak Bangla, Srinagar Garhwal

Sl. No.	Name	Designation	Organization	Address
15.	Sh. Hridaya Ram Kotnala	-	-	H.No. 9/60, Shakti Vihar, Bhaktiyana, Srinagar Garhwal

List of Participants in Hearing at Dehradun on 31.01.2019

Sl. No.	Name	Designation	Organization	Address
1	Sh. Pankaj Gupta	President	Industries Association of Uttarakhand	C/o Satya Industries, Mohabbewala Industrial Area, Dehradun
2	Sh. Rajiv Agarwal	Sr. Vice-President	Industries Association of Uttarakhand	C/o Satya Industries, Mohabbewala Industrial Area, Dehradun
3	Sh. Rakesh Bhatia	President	Uttarakhand Industrial Welfare Association	E-8, Govt. Industrial Area, Patel Nagar, Dehradun
4	Bijay Singh Tomar	State General Secretary	Laghu Udhyog Bharti	E-11, UPSIDC Industrial Area, Selaqui, Dehradun
5	Sh. Anil Marwah	State President	Uttarakhand Industrial Welfare Association	222/5, Gandhi Gram, Kanwali Road, Dehradun, Uttarakhand
6	Sh. K.L. Khanduja	-	Sh. Ganesh Roller Floor Mills	Mohabbewala Industrial Area, Subhash Nagar, Dehradun-248001
7	Sh. Akash Agarwal	-	Arunachal Pradesh Power Corporation Ltd.	B-17, Sector-1, Noida
8	Sh. Arvind Jain	Member	Tarun Kranti Manch (Regd.)	6-Ramleela Bazaar, Dehradun
9	Sh. Anil Kumar Jain	-	-	Ramanuj Court, Sukhi Nadi, Bhupatwala, Haridwar
10	Sh. Naval Duseja	DGM (Finance & Accounts)	M/s Flex Foods Ltd.	Lal Tappar Industrial Area, P.O. Resham Majri, Haridwar Road, Dehradun-248140
11	Sh. Vijay Singh Verma	Secretary	Kisan Club	Village-Delna, P.O. Jhabrera, Haridwar-247665, Uttarakhand
12	Sh. Mahesh Sharma	Convener	Uttarakhand Industrial Welfare Association	Off. G-31, UPSIDC, Industrial Area, Selaqui, Dehradun, Uttarakhand
13	Sh. Vijay Verma	-	M/s Shiv Shakti Electricals Ltd.	Sarrafa Bazaar, Kankhal, Distt. Haridwar, Uttarakhand
14	Sunil Uniyal	-	M/s Fillmatic Packaging Systems	323 MI, Central Hope Town, Selaqui Industrial Area, Dehradun
15	Sh. Divas Joshi	-	-	Engineers Enclave, Phase-2, GMS Road, Dehradun
16	Mohd. Yusuf	-	-	73, Turner Road, Clementown, Dehradun
17	Sh. Sunil Gupta	Editor	Teesri Aankh ka Tehalka	16, Chakrata Road (Tiptop Gali), Dehradun-248001

Sl. No.	Name	Designation	Organization	Address
18	Sh. Munish Talwar	-	M/s Asahi India Glass Ltd.	Integrated Glass Plant, Village-Latherdeva Hoon, Manglaur-Jhabrera Road, P.O. Jhabrera, Tehsil Roorkee, Haridwar
19	Sh. Suresh Kumar	-	-	Majra, Dehradun
20	Smt. Geeta Bisht	Spokesperson	District Congress Committee	Mohanpur, Post Off.-Premnagar, Dehradun-248007
21	Sh. V. Viru Bisht	-	-	Mohanpur, Post Off.-Premnagar, Dehradun-248007
22	Sh. Kavindra Singh Bisht	-	-	1148, Indira Nagar Colony, PO-New Forest, Dehradun-248006.
23	Sh. Manish Kathait	-	M/s Akshay Urja Association Ltd.	47/1, Chakrata Road, Vasant Vihar, Dehradun-248006
24	Sh. Vishwamitra	-	-	36-Panchsheel Park, Chakrata Road, Dehradun
25	Sh. Ashok Goswami	Manager	Shetra Mai Jeevni Ram Sukhdevi Ram Trust	Haridwar Road, Rishikesh, Dehradun
26	Sh. Surya Prakash	-	-	271/153, Dharampur, Dehradun
27	Sh. Khemchand Gupta	-	-	Baldev Niwas, Sampurna Vihar, Shaheed Gajendra Singh Bisht Road (Shimla Road), Badowala Aarkedia, Premnagar, Dehradun.

List of Participants in Hearing at Almora on 04.02.2019

Sl. No.	Name	Designation	Organization	Address
1.	Sh. Nayan Pant	-	-	Pant Niwas, Sitoli Road, Laxmeshwar, Distt. Almora, Uttarakhand
2.	Sh. Ranjeet Singh Bisht	-	-	Village-Gurroda, P.O.-Gurroda Bang, Distt. Almora-263623
3.	Sh. P.C. Joshi	District President	Forest Panchayat Development Society	Lower Mall, Thapaliya, Distt. Almora
4.	Sh. Naveen Chandra Joshi	Former Warrant Officer	-	S/o Late Sh. Tara Datt Joshi, Resident-Bakshi Khola, Post Off. & Distt. Almora-263601, Uttarakhand
5.	Sh. Amar Singh Karki			Mohalla-Makedi, P.O. & Distt. Almora-263601, Uttarakhand
6.	Sh. Prakash Chand Joshi	Chairman	Nagar Palika Parishad, Almora	Opp. Kheem Singh Rautela Sweet Shop, Distt. Almora
7.	Sh. T.S. Karakoti	-	-	Karakoti Niwas, Near Shankar Bhawan, East Pokhar Khali, Distt. Almora-263601, Uttarakhand
8.	Sh. Rajendra	-	-	S/o Sh. Pratap Singh Bisht, Talla

Sl. No.	Name	Designation	Organization	Address
	Kumar			Dupkia, Distt. Almora
9.	Sh. Bhupen Joshi	-	-	117, Uppar Gali, Jakhan Devi, Distt. Almora
10.	Sh. Vijay Pandey	-	-	Pokhar Khali, Near Sai Mandir, Distt. Almora
11.	Sh. Pooran Chandra Tiwari	General Secretary	Uttarakhand Lok Vahini	"Mitra Bhawan", Talla Galli, Jakhandevi, Distt. Almora, Uttarakhand.
12.	Sh. P.G. Goswami	-	-	East Pokhar khali, Near Home Guard Office, Distt. Almora
13.	Sh. Keshav Datt Pandey	-	-	Malla Kholta, Distt. Almora-263601
14.	Sh. Laxman Singh Aithani	-	-	Malla Chausar, Distt. Almora-263601
15.	Sh. Puran Singh Rautela	President	Nagar Congress	Distt. Almora, Uttarakhand
16.	Sh. Girish Dhawan	-	-	Alaknanda House, NTD, Distt. Almora, Uttarakhand
17.	Sh. Sanjay Kumar Agrawal	Director	Shree Karuna Jan Kalyan Samiti (Regd.)	Saroj Kunj, Sanjay Bhawan, Malla Joshi Khola, Distt. Almora-263601, Uttarakhand
18.	Sh. Shyam Lal Shah	X-President	Prantiya Udyog Vyapaar Pratinidhi Mandal	Gangula Mohalla, Distt. Almora, Uttarakhand
19.	Sh. Roop Singh Bisht	-	-	Sarroop Cottage, Makeri, Dharanaula Road, Distt. Almora-263601, Uttarakhand
20.	Sh. M.H. Negi	-	-	Narsingh Bari, Near Nirankari Bhawan, Distt. Almora, Uttarakhand
21.	Sh. Manoj Upreti	-	-	Laxhmeshwar, Near UPCL Distt. Sub-Station & Gas Godown, Distt. Almora, Uttarakhand
22.	Sh. P.C. Tiwari	Advocate & Central President	Uttarakhand Parivartan Party	Devki Niwas, Dharanaula, Distt. Almora-263601, Uttarakhand
23.	Sh. Manoj Joshi	-	-	Near Sunari Naula, Mohalla-Kholta, Distt. Almora-263601, Uttarakhand.
24.	Sh. K.B. Pandey	-	-	Talla Tilakpur, Sunari Naula, Distt. Almora, Uttarakhand

List of Participants in Hearing at Rudrapur on 05.02.2019

Sl. No.	Name	Designation	Organization	Address
1.	Sh. Shakeel A. Siddiqui	Sr. General Manager (Finance)	M/s Kashi Vishwanath Textile Mill (P) Ltd.	5^{th} KM Stone, Ramnagar Road, Kashipur-244713, Distt. Udhamsingh Nagar.
2.	Sh. B.S. Sehrawat	-	M/s ACME Cleantech Solutions Ltd.	Plot 3-8, 29-34, Sector-5, Integrated Industrial Estate Sidcul, Rudrapur, Distt.

Sl. No.	Name	Designation	Organization	Address
				Udhamsingh Nagar.
3.	Sh. R.S. Yadav	Vice President (HR & Admn.)	M/s India Glycols Ltd.	A-1, Industrial Area, Bazpur Road, Kashipur-244713, Distt. Udhamsingh Nagar.
4.	Sh. Ashok Bansal	President	Kumaon Garhwal Chamber of Commerce & Industry, Uttarakhand	Chamber House, Industrial Estate, Bazpur Road, Kashipur, Distt. Udhamsingh Nagar.
5.	Sh. Ajir Awasthi	-	M/s Alpla India Pvt. Ltd.	Plot No. D 11(C), Phase –2, Eldeco Sidcul Industrial Park, Sitarganj, Distt. Udhamsingh Nagar.
6.	Sh. Suresh Kumar	-	M/s La Opala RG Ltd.	B-108, Eldeco Sidcul Industrial Park, Sitarganj, Distt. Udhamsingh Nagar
7.	Sh. Sunil Nayal	-	M/s Auto Line Industries Ltd.	Plot No. 5, 6, 8 Sector-11, Tata Vendor Park, SIDCUL, Pantnagar, Distt. Udhamsingh Nagar
8.	Sh. R.K. Singh	Head (CPED & E)	M/s Tata Motors Ltd.	Plot No. 1, Sector 11, Integrated Industrial Estate, SIDCUL, Pantnagar-263153, Distt. Udhamsingh Nagar.
9.	Sh. S.K. Garg	-	M/s BST Textile Mills Pvt. Ltd.	Plot 9, Sector 9, IIE, SIDCUL, Pantnagar, Distt. Udhamsingh Nagar
10.	Sh. G.S. Sandhu	Managing Director	M/s Tarai Foods Ltd.	Sandhu Farms, P.O. Box No. 18, Rudrapur-263153, Distt. Udhamsingh Nagar.
11.	Sh. R.P. Singh	Executive Director	M/s Tarai Foods Ltd.	Sandhu Farms, P.O. Box No. 18, Rudrapur-263153, Distt. Udhamsingh Nagar.
12.	Sh. Sreekar Sinha	-	M/s Endurance Technologies Ltd.	Plot Nos.-03 & 07, Sector-10, IIE, Pantnagar, Distt. Udhamsingh Nagar-263153
13.	Sh. Sarang Agarwal	-	M/s Umashakti Steels Pvt. Ltd.	Village-Vikrampur, PO-Bazpur, Distt. Udhamsingh Nagar.
14.	Sh. Teeka Singh Saini	President	Bhartiya Kisan Union	33, Katoratal, Kashipur, Distt. Udhamsingh Nagar
15.	Sh. Balkar Singh Fozi	-	-	Village-Raipur Khurd, Kashipur, Distt. Udhamsingh Nagar
16.	Sh. Kuldeep Singh	-	Bhartiya Kisan Union	Village-Dakiya Kalan, Post Off.-Dakiya No.-I, Tehsil-Kashipur, Distt. Udhamsingh Nagar-244713
17.	Sh. R.B. Biradar	Sr. General Manager	M/s Radico Khaitan Ltd.	A-1, A-2, B-3, Industrial Area, Bazpur, Distt. Udhamsingh Nagar
18.	Sh. B.S. Sandhu	-	-	Village-Paiga Farm, P.O. Mahuakheraganj, Tehsil-Kashipur, Distt. Udhamsingh Nagar
19.	Sh. Kalyan Singh Dhillow	-	-	Village-Girdhayi, P.O. Mahuakheraganj, Tehsil-Kashipur, Distt. Udhamsingh Nagar
20.	Sh. Sukhdev Singh	Block President	Bhartiya Kisan Union	Village-Narkheda, p.o. Bazpur, Distt. Udhamsingh Nagar.

Sl. No.	Name	Designation	Organization	Address
21.	Sh. Rajesh Kumar Mishra	-	M/s Sidcul Entrepreneur Welfare Society	Plot No. 1, Sector-9, IIE, SIDCUL Pantnagar, Distt. Udhamsingh Nagar.
22.	Sh. Jagdish Chandra Singh	-	M/s Bhramari Steels Pvt. Ltd.	Village-Kisanpur, Tehsil Kichha, Distt. Udhamsingh Nagar.
23.	Sh. Bhaskar Joshi	-	M/s Titan Company Ltd.	Sector-2, Plot No. 10 B&C, IIE, Sidcul, Pantnagar, Rudrapur-263154, Distt. Udhamsingh Nagar.
24.	Sh. Tushar Agrawal	-	M/s BTC Industries Ltd.	Village-Kishanpur, P.O. Deooria, Tehsil-Kichha, Distt. Udhamsingh Nagar
25.	Sh. Umesh Agrawal	-	M/s Ester Industries Ltd.	Pilibhit Road, Sohan Nagar, P.O.-Charubeta, Khatima, Distt. Udhamsingh Nagar-262308
26.	Sh. Laxmi Dutt	-	-	S/o Sh. Ganga Dutt, Village-Harsaan, P.O. Haripura, Bazpur, Distt. Udhamsingh Nagar
27.	Sh. Babu Singh	-	-	S/o Sh. Karam Singh, Village-Harsaan, P.O. Haripura, Bazpur, Distt. Udhamsingh Nagar
28.	Sh. Lekhraj Jetli	-	M/s OMAXE Riviera	Nainital Road, NH-87, Rudrapur, Distt. Udhamsingh Nagar

7.5 Annexure 5: List of Items shifted from Add Cap to R&M for FY 2017-18

SL. No.	Voucher No.	Asset Name	Amount in Rs.
Chilla Power House			
Building (Civil Mayapur)			
1	O-19	Special Maintainance and repair of Type IVth Residences of Chilla Colony	1567406
2	O-39	Special M&R of Type IVth residences of Chilla colony, Chilla.	829788
3	O-42	Special Maintainance and repair of Type IVth Residences of Chilla Colony	1800803
4	O-42	Special M&R Work of Type 3rd at Chilla	425844
5	O-16	Special M&R of Type IIIrd residences of Chilla colony, Chilla.	1351443
6	O-19	Special M&R of Type IIIrd residences of Chilla colony, Chilla.	1159111
7	O-48	Special M&R of Type IIIrd residences of Chilla colony, Chilla.	787875
Civil Works (Civil Mayapur)			
8	O-61	Repair of roads of chilla colony & P.H Chilla	15487774
9	O-13	Repair of roads of chilla colony & power house complex at chilla	729325
10	O-6	Chilla colony Drainage System Renovation work at Chilla	1648169
11	O-40	Chilla colony Drainage System Renovation work of Chilla	408710
Plant & Machinary			
12	O-53	Repairing of one set runner blade.	15533000
Total amount transferred from Add Cap to R&M of Chilla			41729248
Ramganga Power House			
Plant & Machinary			
1	O-5, Oct 2017	Major maintainance of MIV	17930100
2	O-52 Oct 2017	In Situ repairing and overhauling of Butterfly valves and Howell Bunger valves	29382000
3	O-03, Oct 2017	Repairing of Cylindrical gate	13973982
Total amount transferred from Add Cap to R&M of Ramganga			61286082
Chibro Power House			
Plant & Machinary			
1	A-36,03/2018(WIP)	Capital Maintenance of Machine No. 2	80905140
Total amount transferred from Add Cap to R&M of Chibro			80905140
Plant & Machinary			
Khodri Power House			
1	A-32,3/2018(WIP)	Capital Maintenance of Machine No. 2	97651475
Total amount transferred from Add Cap to R&M of Khodri			97651475
Dhalipur Power House			

SL. No.	Voucher No.	Asset Name	Amount in Rs.
Plant & Machinary			
1	O-5 to O-20 & O-22	Major overhauling of Unit A along with Testing and commissioning and synchronization	39400000
		Total amount transferred from Add Cap to R&M of Dhalipur	39400000
		Kulhal power House	
Building Works			
1	A-1	RMU work of Guest House and Residential Colony	2189724
Plant & Machinary			
2	O-1,17,18 and 19	Major Overhaul of Machine A	34736089
		Total amount transferred from Add Cap to R&M of Kulhal	**36925813**
		Grand Total of expenses transferred from Add cap to R&M	**357897758**

7.6 Annexure 5: Details of Balance Capital Expenditure for MB-II

Sl. No.	Description of claimed item	Estimated amount as per DPR.	Revised estimated cost (in cr.)	Expenditure upto FY 2016-17 (in Rs. Cr.)	2017-18	2018-19	2019-20	Total
1	Rehabilitation	15.56	27.32	19.35	0.66	4.58	2.73	27.32
2	Construction of school building for Saraswati Shishu Mandir School in Shaktipuram Colony Chinyalisaur	2.00	2.72	2.03	0.16	0.00	0.00	2.19
3	Modification of tail race channel.	24.00	27.30	27.30	0.00	0.00	0.00	27.30
4	Compensation for the affected people	1.14	1.14	0.20	0.28	0.00	0.66	1.14
5	Payments to M/s NPCC against claims of Principal Agreement in accordance to the decision of High Power Committee.	12.86	12.19	12.19	0.00	0.00	0.00	12.19
6	Construction of Cement Concrete Protection wall around Joshiyara barrage reservoir.	83.08	75.87	85.34	-33.19	4.11	0.00	56.26
7	Construction of Office Building at Joshiyara.	1.03	1.06	1.06	0.00	0.00	0.00	1.06
8	Construction of officer's residence at Joshiyara colony. (Annexure-CE-8)	1.10	1.15	1.15	0.00	0.00	0.00	1.15
9	Construction of 04 Nos Type-IV Residences and 01 Nos Type-V Residence in Shaktipuram Colony, Chinyalisaur.	1.10	1.12	0.68	0.00	0.00	0.00	0.68
10	Strengthening of water distribution system of Shaktipuram colony, Chinyalisaur.	0.89	0.84	0.84	0.00	0.00	0.00	0.84
11	Construction of workshop building at Dharasu power house of MB-II project.	1.69	1.60	0.75	0.17	0.00	0.00	0.92
12	Protection work on hill slope behind Dharasu power house.	2.57	3.12	2.41	0.66	0.00	0.00	3.08
13	Construction of Road from Joshiyara Bridge to Flushing conduit on left Bank (1.2 km) and from Barrage to NH-108 on Right Bank (0.4 Km).	2.22	3.30	1.33	0.82	0.12	0.00	2.27
14	Construction of Infrastructure works for affected villagers from Joshiyara, Gyansu and Kansain village as per their demands.	9.50	9.50	1.51	0.85	2.08	5.07	9.50
15	Construction of boundary wall, security fencing and gate for Shaktipuram colony and Shifting of existing boundary wall of Shaktipuram colony and provide the separate way for villagers behind Shaktipuram colony.	1.21	1.12	0.97	0.00	0.00	0.00	0.97
16	Testing of surge shaft gate.	5.00	5.00	0.00	0.00	0.00	0.00	0.00
17	River training works from Dharasu Steel bridge to Dharasu Power house up to	2.00	3.63	2.67	0.70	0.00	0.00	3.36

Sl. No.	Description of claimed item	Estimated amount as per DPR.	Revised estimated cost (in cr.)	Expenditure upto FY 2016-17 (in Rs. Cr.)	2017-18	2018-19	2019-20	Total
	TRC.							
18	Slope protection work on uphill side of Surge shaft.	0.90	1.30	0.38	0.88	0.00	0.00	1.27
19	Consultancy expenditure on TRC works & other works except for Joshiyara Barrage.	2.00	0.79	0.66	0.00	0.13	0.00	0.79
20	Liabilities against major civil contract of MB-II Project.			0.11	0.00	0.00	0.00	0.11
a	Reimbursement of Sales Tax.	8.15	19.24	19.24	0.00	0.00	0.00	19.24
b	Reimbursement of royalty.	0.45	0.45	0.00	0.00	0.45	0.00	0.45
c	Award given by the arbitrator in favour of M/s Hydel Construction (P) Ltd against dispute related to swellex Rock Bolt, Steel Fibre as Extra Item and loss due to flood along with interest of Rs 95424/- per month.	30.73	35.30	35.30	0.00	0.00	0.00	35.30
d	Payment against misc. Works.	0.26	0.26	0.19	0.00	0.07	0.00	0.26
e	Security.	0.35	0.35	0.26	0.00	0.00	0.00	0.26
f	Pending payment of GSI.	0.95	0.95	0.00	0.00	0.95	0.00	0.95
g	Expenditure incurred for arbitration.	1.00	2.00	1.15	0.04	0.42	0.40	2.00
h	Claim due to incentive & Idle Charges			0.00	0.00	3.18	0.00	3.18
i	Claim due to foreclosure			0.00	0.00	0.00	0.00	0.00
	IDC amount claimed by UJVN Ltd. against the works of Balance capital works petition in FY 2016-17 (provisionally allowed by the Commision in TO dated 21.03.2018			17.56				17.56
	An adjustment entry considered to nullify the impact of decapitalisation of Rs 36.94 Crore considered by UJVN Ltd. in FY 2017-18*.				36.94			36.94
Total		211.74	238.62	234.61	8.96	16.10	8.86	268.52

* In FY 2017-18, UJVN Ltd. has considerd a de-cap of Rs. 36.94 Crore against works covered under S.No. 6 above i.e. Construction of Cement Concrete Protection wall around Joshiyara barrage reservoir, as grant was received from GoU in FY 2017-18 against the said works executed in FY 2015-16. In this regard, it is observed that the Commission in its Tariff Order dated 23.03.2017 had considered the funding of additional capitalisation of around Rs. 40.37 Crore through grants from GoU and now UJVN Ltd. has received a grant of Rs 36.94 Crore against the same in FY 2017-18. Therefore, an entry of +36.94 Crore is added to ascertain the actual amount of additional capitalisation done in FY 2017-18 by UJVN Ltd. against the Balance capital works petition in FY 2017-18.