Order

On

Approval of Business Plan and Multi Year Tariff Petition

For

UJVN Ltd.

For

Second Control Period

(FY 2016-17 to FY 2018-19)

April 05, 2016

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

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Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No.: 37 of 2015

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Petition No.: 38 to 47 of 2015

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Petition No. 28 of 2014

In the Matter of:

Petition filed by UJVN Ltd. for approval of Business Plan for second Control Period FY 2016-17 to FY 2018-19.

AND

In the Matter of:

Petition filed by UJVN Ltd. for True up for FY 2014-15, Annual Performance Review for FY 2015-16 and determination of Multi Year Tariff for second Control Period FY 2016-17 to FY 2018-19 for 10 LHPs.

AND

In the matter of:

Petition filed by UJVN Ltd. for in-principle approval of Capital Expenditure for Balance Capital Works of 4x76 MW MB-II HEP of UJVN Ltd.

AND

In the Matter of:

UJVN Ltd.

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

Coram

Shri Subhash Kumar Chairman

Shri K.P. Singh Member

Date of Order: April 05, 2016

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 relevant provisions of the Act, the Commission had notified UERC (Terms and Conditions for Determination of Tariff) Regulations, 2011 (UERC Tariff Regulations, 2011) for the First Control Period 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 06.05.2013 for the Control Period 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 and FY 2014-15 vide its Orders dated 10.04.2014 and 11.04.2015 respectively.

Further, in accordance with the relevant provisions of the Act, the Commission had notified UERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015 (UERC Tariff Regulations, 2015) for the Second Control Period FY 2016-17 to FY 2018-19 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, 2015, UJVN Ltd. (hereinafter referred to as "UJVN Ltd." or " the Petitioner") filed separate Petitions for approval of its Business Plan for the second Control Period from FY 2016-17 to FY 2018-19 (Petition No. 37 of 2015, hereinafter referred to as the "Business Plan Petition") and Multi Year Tariff Petitions (Petition No. 38 to 47of 2015, hereinafter referred to as the "MYT Petitions") on 30.11.2015. 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 second Control Period. Further, through the MYT Petition, UJVN Ltd. has submitted station wise detailed calculations of its projected Aggregate Revenue Requirement for the second Control Period from FY 2016-17 to FY 2018-19 as per the UERC Tariff Regulations, 2015. Through the MYT Petition, the Petitioner has also requested for true up of FY 2014-15 based on the audited accounts in accordance with UERC Tariff Regulations, 2011.

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-291/15-16/2015/1381 dated 10.12.2015 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. 100/UJVNL/04/D(F)/UERC dated 16.12.2015 submitted most of the information sought by the Commission. Based on the submission dated 16.12.2015 made by UJVN Ltd., the Commission vide its Order dated 22.12.2015 provisionally admitted the Petition for further processing subject to the condition that UJVN Ltd. shall furnish any further information/clarifications as deemed necessary by the Commission during the processing of the Petition, 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 MYT Petition filed by UJVN Ltd. also had certain infirmities/deficiencies. The Commission, accordingly, vide its letter no. UERC/6/TF-290/15-16/2015/1380 dated 10.12.2015 directed UJVN Ltd. to rectify these infirmities/deficiencies and to submit certain additional information necessary for admission of the MYT Petition. UJVN Ltd. vide its letter no. 101/UJVNL/04/D(F)/UERC dated 16.12.2015 and letter no. 103/UJVNL/04/D(F)/UERC dated 19.12.2015 submitted most of the information sought by the Commission. Based on the submissions dated 16.12.2015 and 19.12.2015 made by UJVN Ltd., the Commission vide its Order dated 22.12.2015 provisionally admitted the MYT Petition, with the condition that UJVN Ltd. shall furnish any further information/clarifications as deemed necessary by the Commission during the processing of the Petition within the time frame, as may be stipulated by the Commission, failing which the Commission may proceed to dispose of the matter as it deems fit based on the information available with it.

UJVN Ltd. had filed a separate Petition for in-principle approval of Capital Expenditure for Balance Capital Works to be carried out for MB-II and the same was admitted by the Commission as Petition No. 28 of 2014. As the issue of additional Capital Works of MB-II is related to truing up and ARR of MB-II, the Commission had decided to dispose of the Petition No. 28 of 2014 as part of this Order. This Order, accordingly, relates to the Business Plan Petition and the Multi Year Tariff (MYT) Petition filed by UJVN Ltd. for approval of Business Plan and determination of Aggregate Revenue Requirement and Multi Year Tariff for the second Control Period from FY 2016-17 to FY 2018-19 as well as true up for FY 2014-15 for 9 LHP's namely Dhakrani , Dhalipur, Chibro, Khodri, Kulhal, Ramganga, Chilla, Manari Bhali I, Khatima and final true up for MB-II from FY 2007-08 to FY 2014-15 and Annual Performance Review for FY 2015-16 for 10 LHP's based on the original as well as subsequent submissions made by UJVN Ltd. during the course of the proceedings.

Tariff determination being the most vital function of the Commission, it has been the practice of the Commission to elaborate in detail the procedure and to explain the underlying principles in determination of tariffs. Accordingly, in the present Order also, in line with 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 -	Summary of Stakeholders' Objections/Suggestions, Petitioner's Responses and Commission's Views
Chapter 3 -	Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Business Plan for second Control Period
Chapter 4 -	Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up of Nine LHPs for FY 2014-15 and Truing up of MB-II for the period from FY 2007-08 to FY 2014-15
Chapter 5 -	Commission's Analysis, Scrutiny & Conclusion on APR for FY 2015-16 and MYT for the second Control Period from FY 2016-17 to FY 2018-19
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 major 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 06.05.2013 approved the Business Plan and Multi Year Tariff for UJVN Ltd. for the first Control Period FY 2013-14 to FY 2015-16. Further, the Commission vide its Order dated 10.04.2014 had carried out the Annual Performance Review for FY 2013-14 for 10 LHPs and truing up of 9 LHPs for FY 2008-09 to FY 2012-13 and provisional true up of MB-II from FY 2007-08 to FY 2012-13. Thereafter, the Commission vide its Order dated 11.04.2015 had carried out the Annual Performance Review for FY 2014-15 for 10 LHPs and truing up of 9 LHP's for FY 2013-14 and provisional true up of MB-II from FY 2007-08 to FY 2013-14.

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, 2015, Generating companies are required to submit the Business Plan Petition and MYT Petition for determination of Aggregate Revenue Requirement. As per Regulation 8(1) of the UERC Tariff Regulations, 2015, the Business Plan Petition was required to be submitted by 30.11.2015. Further, as per Regulation 10(1) of the UERC Tariff Regulations, 2015 the MYT Petitions was required to be filed latest by 30.11.2015. UJVN Ltd. in compliance to the Regulations submitted the station wise Business Plan Petition and MYT Petition for determination of Annual Fixed charges for the second Control Period from FY 2016-17 to FY 2018-19 alongwith true up of expenses of FY 2014-15 on 30.11.2015.

The Business Plan Petition and MYT Petition were provisionally admitted by the Commission vide two separate Orders dated 22.12.2015. The Commission, through its above Admittance Orders dated 22.12.2015, 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 proposals in the leading newspapers. The salient points of the proposal were published by the Petitioner in the following newspapers:

Table 1.1: Publication of Notice

S. No.	Newspaper Name	Date Of Publication
1	Amar Ujala	23.12.2015
2	Danik Jagran	23.12.2015
3	Times of India	24.12.2015
4	Hindustan Times	24.12.2015

Through above notice, stakeholders were requested to submit their objections/suggestions/comments latest by 10.02.2016 (copy of the notice is enclosed as **Annexure 1&2**). The Commission received in all 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

S. No.	Place	Date
1	Pithoragarh	16.02.2016
2	Sitarganj	18.02.2016
3	Pauri Garhwal	23.02.2016
4	Dehradun	01.03.2016

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 Advisory Committee on 04.03.2016, 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-291/15-16/2015/1381, UERC/6/TF-290/15-16/2015/1380 dated 10.12.2015, letter no. UERC/6/TF-291/15-16/2015/1447 and UERC/6/TF-290/15-16/2015/1446 dated 01.01.2016, pointed out certain data gaps in the Petitions and sought following additional information/clarifications from the Petitioner:

Business Plan Petition

- List of SHPs transferred.
- Expected COD of the SHP's namely Bhilangna IIA, Kaldigad, Pilangad, Sonegad, Urgam-I.
- Capacity of upcoming SHPs.
- 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.
- Actual nos. of employees recruited till November, 2015 along with steps taken by UJVN Ltd. to recruit 211 employees in FY 2016-17.
- Specific provisions of Regulations under which Capex plan has been proposed and status of in-principle approval of RMU works.
- Justification for change in the methodology of apportionment to 85:10:5 among 9 LHPs, MB-II and SHPs.
- Debt Equity Ratio of upcoming projects.
- Station wise major shutdowns.

MYT Petition

- Reasons for variation in O&M expenses approved vis-à-vis claimed in the Petition for FY 2014-15.
- Rationale for computing K factor.
- Complete tariff forms with proper linked formats with formulae to be resubmitted
- Actual interest on working capital for FY 2014-15 along with allocation among the stations.
- Actual additional capitalisation and employee, A&G and R&M expenses and gross generation till November, 2015.
- Justification for additional capitalisation complying to requirements laid out in the Regulations along with funding.
- Asset wise details of additional capitalisation for 10 LHPs and details of additional capitalisation for projects under construction/planning in line with the audited financial statements.
- Quarter wise interest paid, refund received and repayment of actual loan for FY 2014-15.
- Asset wise de-capitalisation for each station qualifying it into asset added post formation of the State or prior to the formation of the State.
- Rationale behind claiming interest on GPF trust under employee expenses.
- Justification for computing ROE on the basis of closing equity.

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 14.01.2016, 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-290/15-16/2016/1565 dated 15.01.2016, for its response. The Commission has further sought information vide letter nos. UERC/6/TF-290/2015-16/2016/1590 dated 21.01.2016, UERC/6/TF-290/2015-16/2016/1639 dated 01.02.2016, UERC/6/TF-290/2015-16/1664 dated 04.02.2016, UERC/6/TF-290/2015-16/1668 dated 05.02.2016, UERC/6/TF-290/2015-16/1743 dated

25.02.2016, UERC/6/TF-290/15-16/2016/1795 dated 02.03.2016 and UERC/6/TF-290/2015-16/2016/1801 dated 03.03.2016.

The Petitioner submitted the replies to data gaps/information sought by the Commission vide its letters nos. 12/UJVNL/01/MD/GM(Comm.)/UERC and 13/UJVNL/01/MD/GM (Comm.)/UERC dated 07.01.2016, 51/UJVNL/04/D(F)/ UERC and 52/UJVNL/ 04/D(F)/UERC dated 27.01.2016, 176/UJVNL/02/D(O) dated 12.02.2016, 75/UJVNL/04/D(F)/UERC dated 15.02.2016, 224/UJVNL/02/D(O)/B-8 dated 29.02.2016 and 314/UJVNL/02/D(O) dated 08.03.2016, 328/UJVNL/02/D(O)/B-8 dated 10.03.2016 and 128/UJVNL/03/D(P)/D-5 dated 15.03.2016.

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 04 objections/suggestions/comments on UJVN Ltd's Petition for True Up of FY 2014-15 and approval of Business Plan and MYT for second Control Period from FY 2016-17 to FY 2018-19. List of stakeholders who have submitted their objections/ suggestions/comments in writing is given at **Annexure-3** and the list of respondents who have raised the issues in the public hearings are 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, responses of the Petitioner & Commission's view on the same have been consolidated and summarised below. In the subsequent Chapters of this Order, the Commission has, kept in view the objections/suggestions/comments of the stakeholders related to approval of Business Plan and Multi Year Tariff and reply of the Petitioner 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*

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

Uttarakhand Steel Manufacturers Association (USMA) and M/s Asahi Glass India Ltd. requested the Commission to not 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 in response to M/s Industries Association of Uttarakhand, submitted that UJVN Ltd. prepared its Tariff Petition for forthcoming years on normative basis in accordance to the Regulation notified by the Commission.

With regards to the contention raised by the stakeholders, the Petitioner submitted that the petition for determination of tariff are prepared in accordance with the Regulations notified by the Commission. The tariff of forthcoming years has been proposed on normative basis and truing up for the past year is claimed based on the actual audited expenditure and if the past year tariff is considered then it is very difficult for UJVN Ltd. to carry out the operation and maintenance expenses as per the provision made in the Regulation. UJVN Ltd. continuously makes 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.

2.1.3 *Commission's Views*

With regard to points raised for increase in tariff, 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 annual revenue requirement. The Commission ascertains that no unnecessary cost attributable to inefficiencies of the Petitioner is passed on to the consumers.

2.2 RoE for MB-II Project

2.2.1 *Stakeholder's Comments*

M/s Industries Association of Uttarakhand submitted that the Commission has given its analysis on Capital Cost of MB-II Project in its Order issued in previous years. In the current Petition, UJVN Ltd. have mentioned that they have considered on equity amount of Rs. 591.80 Crore including investment of Rs. 341.39 Crore made out of PDF. Further, M/s Industries Association of Uttarakhand submitted that the Commission has already decided this issue in previous Orders and in the current Petition, UJVN Ltd. has argued that even though the funds from PDF have been used for creation of some of its assets, it should still be allowed RoE on these funds. UJVN Ltd. has tried to argue that PDF is like any other tax and, therefore, funds from PDF should also be considered as loan from Govt. of Uttarakhand and hence, RoE on these funds should be allowed like any other fund. They quoted the preamble of the PDF Act which stipulates as follows:

"A bill to levy and collect duty on saleable energy generated by hydro power projects for the development of hydro power projects, electricity evacuation system and execution of transmission system in the State Sector"

They further submitted that the PDF Act is for development of electricity related projects and only in the State Sector and hence, the argument of UJVN Ltd that this is a duty imposed under an Act and can be deployed for any purpose is not correct. They mentioned that Section 4 of the Act says that proceeds of duty levied through this Act will be credited to the Fund and Section 5 further allows State Government to credit more sums of money either by way of grant or loans to this fund. Hence, such sums of money credited as per Section 5 of the Act can be taken as loan and funds received through levy of PDF under Section 4 of the Act cannot be taken as loan.

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. As regard equity contributed by GoU out of withdrawal from Power Development Fund, UJVN Ltd. has considered Return on Equity on full equity including the amount invested out of PDF based on the reasons explained in the Petition.

2.2.3 *Commission's Views*

The Commission has dealt with this issue in subsequent Chapters (4 & 5) of this Order.

2.3 Design Energy/Actual Energy Generated

2.3.1 *Stakeholder's Comments*

M/s Industries Association of Uttarakhand submitted that in the previous Orders, the Commission had taken the average of annual generation of last 15 years as projected generation for year 2004-05. The same analogy should not hold good for future years as the same was acceptable as sufficient data was not available and considering the requests of UJVN Ltd. that the plants were not kept in good conditions.

They submitted that UJVN Ltd. is claiming that they have moved a long distance in setting right their generating stations by taking appropriate steps and hence, there is a substantial improvement in availability. They requested the Commission to revisit the design energy and allow the benefit of power generation to the consumers which is in line with the Tariff Policy in respect of the norms as the tariff policy stipulates that the operating norms should be at normative levels and not at lower of normative and actual.

2.3.2 *Petitioner's Reply*

With regards to the contention raised by Industries Association of Uttarakhand, the Petitioner submitted that UJVN Ltd. has requested the appropriate authorities to arrange original DPR for each power station for assessing the design energy, therefore, it submitted that average generation of last 15 years may kindly be considered till the original DPR's are available.

2.3.3 *Commission's Views*

The Commission with regard to revisiting design energy for 9 LHPs is of the view that RMU works for some of these stations have been approved by the Commission, while for other stations, the Petition seeking approval of the Commission has been filed by UJVN Ltd. and once these works are completed, the design energy for 9 LHPs may be revised, accordingly. The issue has been dealt in detail in Chapter 3 of this Order.

2.4 Operational Efficiency

2.4.1 *Stakeholder's Comments*

Bhartiya Kisan Union submitted that UJVN Ltd. should improve their operational efficiency to recover their expenses.

2.4.2 *Petitioner's Reply*

The Petitioner has submitted that its generating stations are operating at optimum level and are generating maximum possible energy. Information in this regard, is being submitted to the Commission from time to time.

2.4.3 *Commission's Views*

The Commission agreed that the information in this regard is being submitted by the Petitioner from time to time.

2.5 Issus raised during the Meeting of State Advisory Committee

2.5.1 *Views of State Advisory Committee*

During the State Advisory Committee meeting held on March 4, 2016, the Members made the following suggestions/observations:

- Return of equity on contribution from PDF should not be allowed in accordance with the approach adopted by the Commission in its previous Orders.
- Water Cess levied by GoU for Chilla HEP is higher than the generation tariff for the station.
- Design Energy should be revised in view of considerable additional capitalisation claimed by the Petitioner in its Petition.
- Employee expenses should be linked with efficiency.
- Monitoring of RMU Works.
- Status of new projects.

2.5.2 *Petitioner's Reply*

The Petitioner submitted that that all the generating stations except Maneri Bhali II had outlived their useful life. The generation targets of UJVN Ltd. were achieved only because of the timely repairs and maintenance of its generating stations. Further, the normative O&M expenses for its old stations is lower than the normative O&M expenses for new stations whereas the maintenance work is higher in old stations in comparison to the new stations.

The Petitioner further submitted that the actual expenses in FY 2014-15 are higher than that approved by the Commission on account of the RoE claimed on government contribution from PDF for Maneri Bhali II. It was submitted that the RoE on government contribution from PDF is being claimed as per the Order of the State Government to claim RoE on contribution from PDF.

The Petitioner submitted that the RMU works of Unit 1 of Khatima power station has been completed and 15% enhancement in performance has been observed. The Petitioner also submitted that the RMU works of Unit 2 of Khatima power station would be completed by June 2016 and the RMU works of Unit 3 would be completed by December, 2016. Further, the RMU works for other stations are in the process of award of contracts.

With regard to water cess levied by the State Government, the cess works out to be higher than the Tariff for Chilla power station and such levy of water cess has been challenged by Central Power Utilities before the Hon'ble High Court.

The Petitioner submitted that the final clearances for Vyasi HEP and Lakhwar HEP are yet to be received. Further, the creation of SPV for Kishau HEP is pending as the approval of Himachal Pradesh on Articles of Association is awaited.

2.5.3 *Commission's Views*

The Commission is of the view that UJVN Ltd. should actively pursue the following issues for the State to overcome the power deficit situation:

(a) Share of Himachal Pradesh in the existing hydro stations as per the Agreement with the erstwhile UPSEB needs to be reviewed as Himachal Pradesh has become power surplus now.

(b) Expedite the works at Vyasi HEP and Lakhwar HEP.

(c) Expedite the implementation of Kishau HEP in which Government of India agreed to provide 90% of the funds in the irrigation component and power component of the project cost.

On issues related to RoE on contribution of PDF and Design Energy, the Commission has already expressed its views in the preceding paras and is not reiterating the same.

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

3.2 Multi Year Tariff Framework

As regards the Multi Year Tariff Framework, UERC Tariff Regulations, 2015 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 31.03.2016 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 second Control Period

Regulation 8 of the UERC Tariff Regulations, 2015, 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, 2014, a Business Plan by November 30th, 2015, for the Control Period of three (3) financial years from April 1, 2016 to March 31, 2019,

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, yearly phasing of capital expenditure alongwith the source of funding, financing plan and corresponding capitalization 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, 2015, UJVN Ltd. submitted the Business Plan for the second Control Period from FY 2016-17 to FY 2018-19. 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 second Control Period from FY 2016-17 to FY 2018-19. The Petitioner's submissions and the Commission's analysis on approval of Business Plan for UJVN Ltd. for the second Control Period from FY 2016-17 to FY 2018-19 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 under operation as shown in the Table below:

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

S. No.	Power Station	Installed Capacity (MW)	Year of Commissioning	Type of Scheme	River	Design Head (m)
1	Dhakrani	33.75	1965	ROR	Yamuna	19.80
2	Dhalipur	51.00	1965	ROR	Yamuna	30.48
3	Chibro	240.00	1975	ROR	Tons	110.00
4	Khodri	120.00	1984	ROR	Tons	57.90
5	Kulhal	30.00	1975	ROR	Yamuna	18.00
6	Ramganga	198.00	1975	Reservoir	Ramganga	84.40
7	Chilla	144.00	1980	ROR	Ganga	32.50
8	MB-I	90.00	1984	ROR	Bhagirathi	147.50
9	Khatima	41.40	1956	ROR	Sharda	17.98
10	MB-II	304.00	2008	ROR	Bhagirathi	247.60
	Total	**1252.15**				

The Commission has gone through the submissions of UJVN Ltd. and observes that though Chibro, Khodri, MB-I and MB-II were designed as Run of River with pondage type hydro generating stations, however, the same has been submitted as Run-of-River project which is factually incorrect. The Commission for all purposes has considered Chibro, Khodri, MB-I and MB-II as Run of River with Pondage type hydro generating stations.

UJVN Ltd. has submitted the list of upcoming projects with total capacity of 2034 MW, details of which are shown in the Table below:

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

S. No.	Name of Project	Estimated Potential (MW)	District	River/ Tributary	Expected COD
1	Vyasi	120.00	Dehradun	Yamuna	Jun, 2018
2	Lakhwar	300.00	Dehradun	Yamuna	Mar, 2021
3	Bowla Nandprayag	300.00	Chamoli	Alaknanda	Sep, 2021
4	Tamak lata	250.00	Chamoli	Dhauliganga	Mar, 2027
5	Nand Pyayag Langasu	100.00	Chamoli	Alaknanda	Sep, 2023
6	Sirkari Bhyol Rupsiabagar	210.00	Pithoragarh	Goriganga	Sep, 2021
7	Kishau	660.00	Dehradun	Tons	Mar, 2027
8	Asiganga-I	4.50	Uttarkashi	Bhagirathi	FY 2017-18
9	Asiganga-II	4.50	Uttarkashi	Bhagirathi	FY 2018-19
10	Bhilangana II A	24.00	Tehri	Bhagirathi	
11	Dunao	1.50	Pauri-Garhwal	Alaknanda	FY 2016-17
12	Kaldigad	9.00	Uttarkashi	Bhagirathi	FY 2017-18
13	Kaliganga-I	4.00	Rudraprayag	Alaknanda	FY 2018-19
14	Kaliganga-II	4.50	Rudraprayag	Alaknanda	FY 2018-19
15	Madhmaheshwar	15.00	Rudraprayag	Alaknanda	FY 2018-19
16	Pilangad	4.50	Uttarkashi	Bhagirathi	-
17	Sonegad	7.00	Uttarkashi	Bhagirathi	-
18	Suwarigad	2.00	Uttarkashi	Bhagirathi	FY 2017-18
19	Urgam-I	10.00	Chamoli	Alaknanda	-
20	Limchagad	3.50	Uttarkashi	Bhagirathi	FY 2018-19
	Total	**2034.00**			

It is observed that apart from some of the SHPs and 120 MW Vyasi project, none of the projects are scheduled to be commissioned in the second Control Period.

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. has 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 situation further deteriorates in winters wherein the water discharge reduces and the demand also increases 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 development of Gas based Power Projects in future for which considerable steps were taken up at State and Central Government level. However, UJVN Ltd. has submitted that Government of India has expressed its inability to allocate the gas to it in near future.

UJVN Ltd. has further submitted that to assist the fulfilment 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 25.50 MW along with the estimated investment and current implementation schedule which is as shown in the Table below:

Table 3.3: Existing and Upcoming Solar Generating stations as submitted by UJVN Ltd

Location	Type	Capacity	Estimated investment (Rs Cr)	Implementation schedule
Main Head Office "UJJwal" GMS Road Maharani Bagh, Dehradun	Roof Top Solar PV Plant	100 kW	2.73	Commissioned on 24-12-2012
Pathri Power HEP, Bahadarabad, Haridwar	Roof Top Solar PV Plant	500 kW	3.51	Commissioned on 31-03-2015.
Solar PV Project at Dhakrani HEP	Grid Connected	1.466 MW	12.00	To be implemented on BOO Basis up to 31-03-2016
Solar PV Project at Khodri HEP	Grid Connected	4.398 MW	37.00	To be implemented on BOO Basis up to 31-03-2016
Kulhal HEP	Grid Connected	7.00 MW	44.408	NIT for 7.00 MW Canal Bank Grid Connected Solar PV Plant on Bank of Yamuna Power Channel near Kulhal on BOOT basis. To be implemented upto 31/03/2017
Dhalipur HEP	Grid Connected	7.50 MW	47.580	NIT for 7.50 MW Canal Bank Grid Connected Solar PV Plant on Bank of Yamuna Power Channel near Dhalipur on BOOT Basis. To be implemented upto 31/03/2017
Dhakrani HEP and Dakpathar Barrage	Grid Connected	4.50 MW	28.548	NIT for 4.50 MW Canal Bank Grid Connected Solar PV Plant on Bank of Yamuna Power Channel near Dhakrani and Dakpathar Barrage on BOOT basis. To be implemented upto 31/03/2017

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 second Control Period as submitted by the Petitioner are as given below:

Table 3.4: Capital Expenditure and Capitalisation submitted by UJVN Ltd.(Rs. Crore)

Name of Project	Particulars	Upto 31.03.2016	FY 2016-17	FY 2017-18	FY 2018-19	After 31.03.2019	Total
Vyasi	Capital Expenditure	269.41	324.97	231.37	106.61	3.87	936.23
	Capitalisation	-	-	-	932.36	3.87	936.23
Lakhwar	Capital Expenditure	220.86	77.92	300.77	450.28	2916.68	3966.51
	Capitalisation	-	-	-	-	3966.51	3966.51
Bowla Nandprayag	Capital Expenditure	1.78	35.00	150.00	237.61	2582.85	3007.24
	Capitalisation	-	-	-	-	3007.24	3007.24
Tamak lata	Capital Expenditure	0.18	0.50	0.50	1.00	1051.27	1053.45
	Capitalisation	-	-	-	-	1053.45	1053.45
Nand Pyayag Langasu	Capital Expenditure	0.81	1.00	2.00	1.00	1396.38	1401.19
	Capitalisation	-	-	-	-	1401.19	1401.19

UJVN Ltd. submitted that the project estimates for two of its upcoming projects namely 660 MW Kishau Hydro Project and 210 MW Sirkari Bhyol Rupsiabagar Project is yet to be finalized. Therefore, projections for these stations have not been made. Further, the financing of all the above projects have been projected by the Petitioner considering debt equity ratio of 70:30.

3.4.3 ***Capital Expenditure and Capitalisation Plan for existing projects***

The Petitioner in its Business Plan Petition has proposed the capital expenditure to be carried out during the second Control Period under four major heads as follows:

1. Renovation, Modernisation and Up-rating (RMU) works.
2. Dam Rehabilitation and Improvement Project (DRIP);
3. Misc. Additional Capitalisation;
4. Head office expenses.

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 DRIP and RMU works.

Regulation 21 & 22 of the UERC Tariff Regulations, 2015 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 01.04.2016 duly trued up as on 01.04.2016;

…

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;

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

d) 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 on account 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/equipments 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."

The Petitioner has claimed the additional capitalisation for the Second Control Period under 4 heads namely expenses on account of RMU, DRIP, head office expenses and Misc. additional capitalisation. The Commission for approving additional capitalisation for the second Control Period has considered the additional capitalisation projected against RMU and DRIP schemes only. The Commission has, however, not considered the additional capitalisation towards the RMU works not approved by it for stations such as Ramganga and Kulhal LHPs. The Commission has already accorded the in-principle approval of RMU works for Chilla, MB-I and Khatima for which the Commission has provisionally allowed additional capitalization for the Second Control Period subject to detailed scrutiny during Annual Performance Review and shall be finally allowed after carrying out due prudence check based on the approval of the Commission and actual expenditure incurred. Additional capitalisation for Second Control Period for Dhalipur HEP has also been provisionally allowed since the Petition for the same has been submitted before the Commission subject to the detailed scrutiny of the Petition at the Commission's end. Further, RMU of Dhakrani has not been considered as the Petitioner has not filed the Petition for seeking approval for the same. With regards to additional capitalisation on account of other head office expenses and misc. additional capitalisation, the Commission in line with its previous approach shall consider the same on actual basis subject to prudence check at the time of truing up in accordance with the UERC Tariff Regulations, 2015. Further, the additional capitalization as approved by the Commission has been considered to be funded through normative debt equity ratio of 70:30.

The total additional capitalisation claimed and that approved for the Control Period by the Commission is as shown in the Tables below:

Table 3.5: Additional Capitalisation proposed by UJVN Ltd. and approved by the Commission for FY 2016-17 (Rs. Crore)

Name of the Generating Stations	DRIP	RMU	Other Works	Total Claimed	Total Approved
	(A)	(B)	(C)	(A)+(B)+(C)	
Dhakrani	9.89	9.99	0.27	20.15	9.89
Dhalipur	14.94	13.36	0.42	28.73	28.30
Chibro	5.19	0.00	12.64	17.83	5.19
Khodri	2.60	0.00	11.09	13.69	2.60
Kulhal	12.16	48.4	0.24	60.81	12.16
Ramganga	0.00	0.00	2.14	2.14	0.00
Chilla	2.60	0.00	2.65	5.25	2.60
MB-I	53.15	0.00	2.08	55.23	53.15
Khatima	0.00	50.00	0.84	50.84	50.00
MB-II	0.00	0.00	11.03	11.03	0.00
Total	**100.53**	**121.75**	**43.395**	**265.70**	**163.89**

Table 3.6: Additional Capitalisation proposed by UJVN Ltd. and approved by the Commission for FY 2017-18 (Rs. Crore)

Name of the Generating Stations	DRIP	RMU	Other Works	Total Claimed	Total Approved
	(A)	(B)	(C)	(A)+(B)+(C)	
Dhakrani	0.00	13.12	0.27	13.39	0.00
Dhalipur	0.00	32.60	0.42	33.02	32.60
Chibro	0.00	0.00	5.49	5.49	0.00
Khodri	0.00	0.00	8.00	8.00	0.00
Kulhal	0.00	40.90	0.24	41.15	0.00
Ramganga	0.00	39.21	2.14	41.35	0.00
Chilla	0.00	47.43	1.19	48.62	47.43
MB-I	0.00	0.00	2.08	2.08	0.00
Khatima	0.00	12.00	0.34	12.34	12.00
MB-II	0.00	0.00	17.82	17.82	0.00
Total	**0.000**	**185.26**	**37.99**	**223.26**	**92 .03**

Table 3.7: Additional Capitalisation proposed by UJVN Ltd. and approved by the Commission for FY 2018-19 (Rs. Crore)

Name of the Generating Stations	DRIP	RMU	Other Works	Total Claimed	Total Approved
	(A)	(B)	(C)	(A)+(B)+(C)	
Dhakrani	0.00	28.12	0.66	28.78	0.00
Dhalipur	0.00	36.38	0.76	37.14	36.38
Chibro	0.00	0.00	3.62	3.62	0.00
Khodri	0.00	0.00	7.41	7.41	0.00
Kulhal	0.00	14.80	0.89	15.69	0.00
Ramganga	0.00	81.64	0.93	82.57	0.00
Chilla	0.00	51.53	0.67	52.20	51.53
MB-I	0.00	0.00	2.20	2.20	0.00
Khatima	0.00	0.00	0.19	0.19	0.00
MB-II	0.00	0.00	7.83	7.83	0.00
Total	**0.00**	**212.47**	**25.16**	**237.63**	**87.91**

3.5 Human Resources Plan

3.5.1 *Petitioner's Submissions*

The HR plan for the second Control Period from FY 2016-17 to FY 2018-19 as submitted by the Petitioner is as per the Table below:

Table 3.8: HR Plan as submitted by UJVN Ltd.

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Opening no. of employees	2131	2316	2317
Recruitment during the year	311	100	100
Retirement during the year	126	99	82
Closing no. of employees	2316	2317	2335

3.5.2 *Commission's Analysis*

The Commission directed the Petitioner to clarify whether the employee details submitted includes manpower allocated to projects other than 10 LHPs and if so, to submit the details of such manpower. The Petitioner submitted the details of manpower bifurcating the manpower for 10 LHPs and other projects. Accordingly, the Commission has revised the HR Plan for the second Control Period from FY 2016-17 to FY 2018-19 and has only considered manpower allocated to 10 LHPs. Further, the Commission shall consider the actual recruitment and retirement status during the truing up for the respective years. However, the Commission is of the view that if the actual addition to the number of employees is lower than the recruitment considered in this Order, the impact of the same shall be adjusted while carrying out the truing up and will not be considered as reduction in Employee expenses on account of controllable factors.

The HR Plan approved by the Commission is shown in the Table below:

Table 3.9: HR Plan approved by the Commission for 10 LHPs

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Opening no. of employees	2115	2196	2177
Recruitment during the year	207	80	80
Retirement during the year	126	99	82
Closing no. of employees	2196	2177	2175

3.6 Trajectory of the Performance Parameters

3.6.1 *Design Energy*

Regulation 3(25) of UERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015 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, 2015, 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 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…"

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.

Furthermore, since RMU and other capital works are being undertaken in most of the old LHPs, the Commission is of the opinion that the generation from the LHPs would increase after such works are over. Hence, in view of the above facts and in the absence of any reasonable basis for assessing the design energy, the Commission does not find it appropriate to revise the design energy of the 9 LHPs at this stage. However, once the RMU for the stations gets completed the

Commission shall take a fresh view on the issue. Accordingly, the Commission has, therefore, provisionally retained the plant wise primary energy as approved for 9 LHPs in the First Control Period as the design energy for the Second Control Period. However, 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. For Maneri Bhali-II the Commission has considered the design energy as per DPR of the Project.

The Commission has, accordingly, approved the design energy for the second Control Period as shown in the Table below:

Table 3.10: Design Energy approved by the Commission (MU)

Generating Station	Original Design Energy	Approved for the First Control Period	Proposed by UJVN Ltd.	Approved for the Second Control Period
Dhakrani	169.00	156.88	156.88	156.88
Dhalipur	192.00	192.00	192.00	192.00
Chibro	750.00	750.00	750.00	750.00
Khodri	345.00	345.00	345.00	345.00
Kulhal	164.00	153.91	153.91	153.91
Ramganga	385.00	311.00	311.00	311.00
Chilla	725.00	671.29	671.29	671.29
MB-I	546.00	395.00	395.00	395.00
Khatima	208.00	194.05	194.05	194.05
MB-II	1566.10	1566.10	1566.10	1566.10
Total	**5050.10**	**4735.23**	**4735.23**	**4735.23**

3.6.2 *Auxiliary Consumption*

UJVN Ltd. in its Petition has projected the auxiliary energy consumption in variance to the norms stipulated in the UERC Tariff Regulations, 2015. UJVN Ltd. further submitted that the auxiliary consumption and transformation losses in the Second 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, 2015. Out of the 10 large generating stations, UJVN Ltd., in its Petition has proposed the higher auxiliary consumption for 7 stations. Further, UJVN Ltd., in its Petition has also not given adequate justification for the same. If the norms fixed in 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, 2015. The Auxiliary Consumption as submitted by the Petitioner and as approved for the second Control Period is as shown in the Table below:

Table 3.11: Auxiliary Consumption including Transformation Losses for second Control Period

Generating Station	As proposed by UJVN Ltd. (%)	Approved for the second Control Period (%)
Dhakrani	1.21	0.70
Dhalipur	0.94	0.70
Chibro	1.36	1.20
Khodri	0.81	1.00
Kulhal	2.48	0.70
Ramganga	0.38	0.70
Chilla	1.60	1.00
MB-I	1.59	0.70
Khatima	1.29	0.70
MB-II	0.79	1.00

3.6.3 ***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, 2015 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 energy charge rate (Primary Energy 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, 2015. The relevant extract of the Regulation has also been reproduced below for reference.

"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 Second Control Period from FY 2016-17 to FY 2018-19 as approved by the Commission is given in the Table below:

Table 3.12: Original Design Energy, Design Energy and Saleable Primary Energy for Second Control Period from FY 2016-17 to FY 2018-19 as approved by the Commission

Name of the 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	194.05	0.70%	1.36	192.69
MB-II	1566.10	1566.10	1.00%	15.66	1550.44
Total	**5050.10**	**4735.23**		**44.65**	**4690.59**

3.6.4 *Outage Plan during the second Control Period*

UJVN Ltd. 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 Second Control Period as shown in the Table below:

Table 3.13: Outage Plan for FY 2016-17 as submitted by UJVN Ltd.

Sl. No.	Name of Power Station	Unit	Date of Start	Date of Completion	No. of Days	Remarks
1	Dhakrani (3x11.25)	Unit 1	15-11-2016	24-12-2016	40	AM
		Unit 2	28-12-2016	05/02/2017	40	AM
		Unit 3	09/02/2017	20-03-2017	40	AM
			01/04/2016	30/04/2016	30	DRIP CLOSURE
2	Dhalipur (3x17)	Unit 1	01/12/2016	31/03/2017	121	CM
		Unit 2	16/11/2016	31/12/2016	46	AM
		Unit 3	01/01/2017	17/02/2017	48	AM
			01/04/2016	30/04/2016	30	DRIP CLOSURE
3	Chibro (4x60)	Unit 1	20-12-2016	18-01-2017	30	AM
		Unit 2	16-11-2016	15-03-2017	120	CM
		Unit 3	25-01-2017	23-02-2017	30	AM
		Unit 4	01/03/2017	30-03-2017	30	AM
4	Khodri (4x30)	Unit 1	01/03/2017	30-03-2017	30	AM
		Unit 2	25-01-2017	23-02-2017	30	AM
		Unit 3	20-12-2016	18-01-2017	30	AM
		Unit 4	16-11-2016	15-03-2017	120	CM
5	Kulhal (3x10)	Unit 1	01/10/2016	31/03/2017	182	RMU
		Unit 2	16/11/2016	31/12/2016	46	AM
		Unit 3	01/01/2017	17/02/2017	48	AM
			01/04/2016	30/04/2016	30	DRIP CLOSURE
6	Ramganga (3x66)	Unit 1	01/07/2016	15/08/2016	46	AM
		Unit 2	16/08/2016	20/09/2016	36	AM
		Unit 3	21/09/2016	26/10/2016	36	AM
7	Chilla (4x36)	Unit 1	01/02/2017	31/03/2017	59	RMU
		Unit 2	10/12/2016	15/01/2017	37	AM
		Unit 3	01/11/2016	05/12/2016	35	AM
		Unit 4	20/01/2017	25/02/2017	37	AM
8	MB-I (3x30)	Unit 1	NIL	NIL		
			01/07/2016	01/10/2016	93	R.E & CM
		Unit 2	15/08/2016	05/09/2016	22	AM
			28/03/2017	26/04/2017	30	AM
		Unit 3	15/08/2016	05/09/2016	22	AM
			26/02/2017	27/03/2017	30	AM
9	Khatima (3x13.8)	Unit 1	10/11/2016	24/12/2016	45	AM
		Unit 2	1/04/2016	05/05/2016	35	RMU
		Unit 3	1/04/2016	30/09/2016	183	RMU
10	MB-II (4x76)	Unit 1	01/11/2016	30/12/2016	60	AM
		Unit 2	01/12/2016	29/01/2017	60	AM
						AM
		Unit 3	11/01/2017	11/03/2017	60	AM
						AM
		Unit 4	01/04/2016	21/04/2016	21	AM
			22/02/2017	31/03/2017	38	AM

Table 3.14: Outage Plan for FY 2017-18 as submitted by UJVN Ltd.

Sl. No.	Name of Power Station	Unit No	Date of Start	Date of Completion	No of Days	Remarks
1	Dhakrani (3x11.25)	Unit 1	15-11-2017	24-12-2017	40	AM
		Unit 2	28-12-2017	05/02/2018	40	AM
		Unit 3	09/02/2018	20-03-2018	40	AM
2	Dhalipur (3x17)	Unit 1	Nil	Nil		
		Unit 2	01/11/2017	31/03/2018	151	RMU
		Unit 3	01/01/2018	17/02/2018	48	AM
3	Chibro (4x60)	Unit 1	16-11-2017	15-03-2018	120	CM
		Unit 2	25-01-2018	23-02-2018	30	AM
		Unit 3	20-12-2017	18-01-2018	30	AM
		Unit 4	01/03/2018	30-03-2018	30	AM
4	Khodri (4x30)	Unit 1	20-12-2017	18-01-2018	30	AM
		Unit 2	25-01-2018	23-02-2018	30	AM
		Unit 3	16-11-2017	15-03-2018	120	CM
		Unit 4	01/03/2018	30-03-2018	30	AM
5	Kulhal (3x10)	Unit 1	01/04/2017	30/09/2017	183	RMU
		Unit 2	01/10/2017	31/03/2018	182	RMU
		Unit 3	20/02/2018	05/04/2018	45	
6	Ramganga (3x66)	Unit 1	01/06/2017	31/01/2018	245	RMU
		Unit 2	01/07/2017	15/08/2017	46	AM
		Unit 3	16/08/2017	20/09/2017	36	AM
7	Chilla (4x36)	Unit 1	01/04/2017	31/01/2018	306	RMU
		Unit 2	01/02/2018	31/03/2018	59	RMU
		Unit 3	22/02/2018	27/03/2018	34	AM
		Unit 4	01/04/2018	30/04/2018	30	AM
8	MB-I (3x30)	Unit 1	15/08/2017	05/09/2017	22	AM
			01/12/2017	31/12/2017	31	AM
		Unit 2	15/08/2017	05/09/2017	22	AM
			16/11/2017	25/02/2018	102	CM
		Unit 3	15/08/2017	05/09/2017	22	AM
			01/12/2017	31/12/2017	31	AM
	DRIP CLOSURE		01/12/2017	31/01/2018	62	DRIP
9	Khatima (3x13.8)	Unit 1	10/11/2017	24/12/2017	45	AM
		Unit 2	26/12/2017	08/02/2018	45	AM
		Unit 3	10/02/2018	24/03/2018	43	AM
10	MB-II (4x76)	Unit 1	01/11/2017	30/12/2017	60	AM
		Unit 2	01/12/2017	29/01/2018	60	AM
		Unit 3	11/01/2018	11/03/2018	60	AM
		Unit 4	01/04/2017	21/04/2017	21	AM
			22/02/2018	31/03/2018	38	AM

Table 3.15: Outage Plan for FY 2018-19 as submitted by UJVN Ltd.

Sl. No.	Name of Power Station	Unit No	Date of Start	Date of Completion	No of Days	Remarks
1	Dhakrani (3x11.25)	Unit 1	01/11/2018	31/05/2019	212	RMU
		Unit 2	28-12-2018	05/02/2019	40	AM
		Unit 3	09/02/2019	20-03-2019	40	AM
2	Dhalipur (3x17)	Unit 1	16/11/2018	30/12/2018	45	AM
		Unit 2	01-04-2018	31-05-2018	61	RMU
		Unit 3	01/11/2018	31/05/2019	212	RMU
3	Chibro (4x60)	Unit 1	01/03/2019	30/03/2019	30	AM
		Unit 2	01-25-2019	23-02-2019	30	AM
		Unit 3	20-12-2018	18-01-2019	30	AM
		Unit 4	16-11-2018	15-03-2019	120	CM
4	Khodri (4x30)	Unit 1	16-11-2018	15-03-2019	120	CM
		Unit 2	25-01-2019	23-02-2019	30	AM
		Unit 3	20-12-2018	18-01-2019	30	AM
		Unit 4	01/03/2019	30-03-2019	30	AM
5	Kulhal (3x10)	Unit 1	nil	nil		
		Unit 2	01/04/2018	30/06/2018	91	RMU
		Unit 3	01/07/2018	31/03/2019	274	RMU
		Closure for Common Works	01/11/2018	29/01/2019	90	RMU COMMON WORK
6	Ramganga (3x66)	Unit 1	16/08/2018	20/09/2018	36	AM
		Unit 2	01/06/2018	31/01/2019	245	RMU
		Unit 3	01/07/2018	15/08/2018	46	AM
7	Chilla (4x36)	Unit 1				
		Unit 2	01/04/2018	31/01/2019	306	RMU
		Unit 3	01/02/2019	31/03/2019	59	RMU TILL MARCH-20
		Unit 4	01/02/2019	31/03/2019	59	RMU TILL MARCH-20
8	MB-I (3x30)	Unit 1	15/08/2018	10/09/2018	27	AM
			26/02/2019	27/03/2019	30	AM
		Unit 2	15/08/2018	07/09/2018	24	AM
			28/03/2019	26/04/2019	30	AM
		Unit 3	15/08/2018	12/09/2018	29	AM
			16/11/2018	31/03/2019	136	RMU TILL OCT-19
9	Khatima (3x13.8)	Unit 1	10/11/2018	24/12/2018	45	AM
		Unit 2	26/12/2018	08/02/2019	45	AM
		Unit 3	10/02/2019	24/03/2019	43	AM
10	MB-II (4x76)	Unit 1	01/11/2018	30/12/2018	60	AM
		Unit 2	01/12/2018	29/01/2019	60	AM
		Unit 3	11/01/2019	11/03/2019	60	AM
		Unit 4	01/04/2018	21/04/2018	21	AM
			22/02/2019	31/03/2019	38	AM

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 second Control Period.

3.6.5 *Normative Annual Plant Availability Factor (NAPAF)*

UJVN Ltd. in its Business Plan has projected NAPAF for the second Control Period. The Commission directed the Petitioner to project the same considering the outage plan for the station in the second Control Period. The Petitioner in response revised its NAPAF projections for the second Control Period as shown in the Table below:

Table 3.16: NAPAF (%) projected by UJVN Ltd.

Station	FY 2016-17	FY 2017-18	FY 2018-19
Dhakrani	61.04%	66.17%	60.94%
Dhalipur	57.26%	61.07%	58.62%
Chibro	65.06%	65.06%	65.06%
Khodri	57.23%	57.23%	57.23%
Kulhal	63.52%	62.94%	67.14%
Ramganga	17.24%	17.24%	17.24%
Chilla	69.57%	63.56%	62.85%
MB-I	67.45%	60.05%	70.31%
Khatima	47.21%	61.04%	61.04%
MB-II	55.74%	55.74%	55.74%

Regulation 47(1) (b) of UERC Tariff Regulations, 2015 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."

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 for the first Control Period shall continue to be applicable for the second Control Period except for the stations for which the Petitioner has projected higher NAPAF for the second Control Period. Accordingly, the Commission has approved the NAPAF for each station for Second Control Period equivalent to higher of the NAPAF approved in first Control Period or NAPAF now projected by the Petitioner. 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 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.

With regard to MB-II, UJVN Ltd. has submitted that the NAPAF for the second Control Period be considered as 55.74% mainly due to constraints in raising reservoir level from 1104 m to 1108 m. In this regard, UJVN Ltd. submitted that as per the Detailed Project Report (DPR) of MB-II, the project is envisaged as run of river project with pondage. UJVNL further submitted that the barrage is designed to operate between 1103 m (MDDL) to 1108.0 m (FRL) and the live storage capacity of the Barrage is 7,45,892 cum at FRL of 1108.0 m. As per the DPR, with this live storage capacity, the Power Station is designed to deliver peaking of 304.00 MW for 2 hrs. each in the morning & evening and peaking ends when the live storage capacity remains between 1,62, 800.00 Cum to 1,57,200.00 cum, i.e. nearly around 1104.5 m. UJVN Ltd. submitted that due to local public unrest/ agitation, the maximum operating level at Joshiyara Barrage was fixed at 1104.00 m instead of 1108.00 m by District Administration, GoU vide letter no. 521/VII- 17/2006.07 dated 03.10.2007/ 07.11.2011 and hence, the plant is forced for operation at 1104.00 m since its commissioning in 2008 because of the situation beyond the control of UJVN Ltd. As the live storage capacity of the barrage at 1104 m level is 1,09,855.00 Cum. (which is approximately one seventh of the maximum live storage capacity at 1108 m level) the plant can run as base load plant only and maximum load of 304 MW can be achieved only for 10-12 minutes.

UJVN Ltd. requested the Commission that in view of the constraints in the live storage capacity of the Joshiyara Barrage, it is appropriate to consider MB-II project as pure RoR plant until the maximum operating level of Joshiyara Barrage is allowed by the District Administration.

The Commission had detailed deliberations with UJVN Ltd. in this regard. During the deliberations, UJVN Ltd. informed that it will take around 2-3 months for raising the barrage height from 1104 m to 1108 m. The Commission has gone through the submissions of the Petitioner and is of the view that raising of reservoir level is essential for the MB-II station to achieve full capacity. The Commission is of the view that it will not be appropriate to consider MB-II plant as pure RoR plant when the plant is designed for RoR with pondage and the capital cost has been approved which includes the cost of Pondage also. In case the plant is to be treated as RoR, then the Capital Cost will also require adjustment accordingly. The Commission has been relaxing the NAPAF for MB-II for previous years also. Considering the ground realities, the Commission is of the view that the works of increasing the height of Barrage from 1104 m to 1108 m should be taken on top priority alongwith other related works which are essentially to be carried out for attaining the design generation from MB-II Plant and, therefore, **the Commission directs the Petitioner 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, accordingly, has considered three months shutdown from November, 2016 to January 2017 for carrying out these works during FY 2016-17 and has relaxed the NAPAF to 61.51% for FY 2016-17. The Commission would also like to caution UJVN Ltd., that this is the last time, the Commission is relaxing the NAPAF of MB-II on the issue of raising the height of the barrage. However, in case the Petitioner fails to carry out such works during FY 2016-17 as directed by the Commission, the NAPAF for the station shall be considered as 74% while carrying out the truing- up for 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.

The Commission has, accordingly, approved the NAPAF as shown in the Table below:

Table 3.17: NAPAF as approved by the Commission

Station	FY 2015-16	Proposed by UJVN Ltd.			Now Approved		
	Norm	FY 2016-17	FY 2017-18	FY 2018-19	FY 2016-17	FY 2017-18	FY2018-19
Dhakrani	57.00%	61.04%	66.17%	60.94%	61.04%	66.17%	60.94%
Dhalipur	57.00%	57.26%	61.07%	58.62%	57.26%	61.07%	58.62%
Chibro	64.00%	65.06%	65.06%	65.06%	65.06%	65.06%	65.06%
Khodri	57.00%	57.23%	57.23%	57.23%	57.23%	57.23%	57.23%
Kulhal	65.00%	63.52%	62.94%	67.14%	65.00%	65.00%	67.14%
Ramganga	19.00%	17.24%	17.24%	17.24%	19.00%	19.00%	19.00%
Chilla	74.00%	69.57%	63.56%	62.85%	74.00%	74.00%	74.00%
MB-I	79.00%	67.45%	60.05%	70.31%	79.00%	79.00%	79.00%
Khatima	47.00%	47.21%	61.04%	61.04%	47.21%	-	-
MB-II	74.00%	55.74%	55.74%	55.74%	61.51%	-	-

4 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up of Nine LHPs for FY 2014-15 and Truing up of MB-II for the period from FY 2007-08 to FY 2014-15

Regulation 13 of the UERC Tariff Regulations, 2011 stipulates as follows:

*"**13. 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 2004 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 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 filing, the Petitioner has submitted the data relating to its expenses and revenues for FY 2014-15 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 2014-15 alongwith the sharing of gains and losses. In addition to the above, with regard to MB-II, the Petitioner has also claimed additional capitalisation starting from COD upto FY 2014-15.

In the matter of truing up of AFC of MB-II for FY 2007-08 to FY 2013-14, the Commission in its Tariff Order dated 11.04.2015, carried out the provisional true up of the aforesaid period considering the capital cost as approved by the Commission as on COD of the project and held that the final truing up of AFC would be carried out after the detailed scrutiny of additional capitalisation.

UERC (Terms and Conditions for Truing Up of Tariff) Regulations, 2008 specify as under:

"(1) The Commission shall undertake a review of actual levels of expenses, revenues and operational parameters in a financial year vis-à-vis the approved levels in the relevant Tariff Order for that financial year either on a Petition moved by the concerned licensee/generating company or suo-moto. While doing so, the Commission after considering the reasons for these variations may permit carrying forward of financial impact of the same to the extent approved by the Commission to the following year(s). This exercise shall be called truing up exercise.

(2) Truing up exercise for a financial year shall normally be carried out alongwith Tariff determination exercise(s) taken up after the close of that financial year.

(3) Truing up can be done either based on provisional or audited data and can also be taken up for one or more items separately as deemed necessary by the Commission. No further true up shall normally be done after a truing up exercise based on audited data has been carried out."

Hence, the Commission has decided to carry out final truing up of MB-II for the period FY 2007-08 to FY 2012-13 in accordance with the above Regulations and for the subsequent years, i.e. FY 2013-14 & FY 2014-15 in accordance with UERC Tariff Regulations, 2011 in the current tariff proceedings.

4.1 Impact of Sharing of Gains and Losses on account of Controllable Factors for FY 2013-14 and FY 2014-15

Regulation 15 of the UERC Tariff Regulations, 2011 specify as follows:

"15. Sharing of Gains and Losses on account of Controllable factors

(1) The approved aggregate gain to the Applicant on account of controllable factors shall be dealt with in the following manner:

20% of such gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order of the Commission;

The balance amount of gain may be utilized at the discretion of the Applicant.

(2) The approved aggregate loss to the Applicant on account of controllable factors shall be dealt with in the following manner:

25% of the amount of such loss shall be allowed by the Commission to be recovered through tariffs over such period as may be specified in the Order of the Commission under;

The balance amount of loss shall be absorbed by the Applicant."

The MYT Regulations, 2011 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, 2011 these are controllable expenses. Similarly, in accordance with the Regulations, the variation in working capital requirements is also a controllable factor. Hence, the sharing of gains and losses has been carried out for these expenses. While, the capital related expenses like interest on loans, depreciation etc. have been treated as uncontrollable and hence, no sharing of losses or gains for the same has been carried out.

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, 2011.

4.1.1 *Physical Parameters*

4.1.1.1 Relaxation sought on account of NAPAF

A. Relaxation sought for 9 LHPs

The Commission vide its MYT Order dated 06.05.2013 had approved the NAPAF in accordance with Regulations 51 of UERC Tariff Regulations, 2011. Thereafter, the Petitioner filed the

Review Petition dated 01.07.2013 seeking relaxation of NAPAF for its LHPs. In that Petition, UJVN Ltd. had submitted that LHPs face problems during rainy season in terms of flood pass, high PPM content, silt problem, flushing and choking, etc. The Petitioner had also submitted that River Tons carries heavy trash, debris and high concentration of silt during monsoon season thereby restricting the operations of the plants in the Yamuna Valley significantly resulting in appreciable reduction of plant availability.

Further, with regard to Plants on River Bhagirathi, the Petitioner had submitted that the River Bhagirathi carries huge amount of silt during monsoon which contains pentangular shaped quartz particles having very high hardness and these particles cause severe erosion to the underwater parts of the machines resulting in substantial increase in maintenance period, thus, reduction in plant availability.

Thus, the Commission vide its Order dated 03.09.2013 on the above referred review Petition had re-fixed NAPAF of 9 LHPs & MB-II as follows:

Table 4.1: NAPAF Approved vide review Order dated 03.09.2013

<table>
<tr><th rowspan="2">Sl. No.</th><th rowspan="2" colspan="2">Name of Plant</th><th rowspan="2">NAPAF Approved in the MYT Order dt. 06.05.2013</th><th rowspan="2">NAPAF Proposed by UJVN Ltd. in Review Petition dt. 01.07.2013</th><th colspan="3">NAPAF Approved by the Commission in Order dt. 03.09.2013</th></tr>
<tr><th>FY 13-14</th><th>FY 14-15</th><th>FY 15-16</th></tr>
<tr><td>1</td><td>Dhakrani</td><td>RoR</td><td>77%</td><td>44%</td><td colspan="3">57%</td></tr>
<tr><td>2</td><td>Dhalipur</td><td>RoR</td><td>77%</td><td>45%</td><td colspan="3">57%</td></tr>
<tr><td>3</td><td>Chibro</td><td>Pondage</td><td>85%</td><td>29%</td><td>62%</td><td>63%</td><td>64%</td></tr>
<tr><td>4</td><td>Khodri</td><td>Pondage</td><td>85%</td><td>30%</td><td>55%</td><td>56%</td><td>57%</td></tr>
<tr><td>5</td><td>Kulhal</td><td>RoR</td><td>77%</td><td>49%</td><td colspan="3">65%</td></tr>
<tr><td>6</td><td>Ramganga</td><td>Storage</td><td>85%</td><td>-</td><td colspan="3">19%</td></tr>
<tr><td>7</td><td>Chilla</td><td>RoR</td><td>76%</td><td>65%</td><td colspan="3">74%</td></tr>
<tr><td>8</td><td>MB-I</td><td>Pondage</td><td>85%</td><td>50%</td><td>77%</td><td>78%</td><td>79%</td></tr>
<tr><td>9</td><td>Khatima</td><td>RoR</td><td>78%</td><td>67% (44% in view of RMU)</td><td colspan="3">47%</td></tr>
<tr><td>10</td><td>MB-II</td><td>Pondage</td><td>85%</td><td>59%</td><td>71%</td><td>73%</td><td>74%</td></tr>
</table>

Now, in the current Petition, the Petitioner has further requested to relax the NAPAF norms for FY 2014-15 for its plants namely MB-I, Chilla, Ramganga and Khatima LHPs. In support of its claim, the Petitioner has submitted the following plant wise reasons for not being able to achieve prescribed NAPAF and the same are discussed below:

- **MB-I–**The Petitioner has submitted that the station could not achieve NAPAF as the generating plant remained closed during 30.07.2014 to 26.08.2014 due to monsoon closure on account of high PPM. Further, that the level of the dam could not be maintained at optimum level due to damages caused to the dam during the June 2013 flood and also there was heavy leakage from the dam gates. Therefore, a shutdown was taken during lean season from 02.12.2014 to 08.01.2015 to repair the Maneri Dam.

- **Chilla–**The Petitioner submitted that the repair of machine no. 4 took more time than anticipated due to unprecedented damages (One runner blade was found to be broken and 60% part was washed away) to its under water parts caused by silt due to floods in June, 2013. The Capital maintenance of Unit-4 continued till 29.04.2014 and even after capital overhaul high vibrations were observed and the machine could not be run on full load till June 2014. On investigation the concrete foundation block was found cracked which took longer time to repair. This problem was an exceptional one. LGB vibration was again observed in February & March, 2015 and due to this machine could not run on full load.
- **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.
- **Khatima-**The Petitioner submitted that the power station could not achieve the normative plant availability factor for the FY 2014-15 due to forced closure of the Power Station w.e.f. 31.08.2014 on account of breaching of Power Channel. Thereafter, generation could start only by the end of March 2015 after completion of all restoration works and availability of water in power channel.

The Commission has gone through the submissions of the Petitioner and is of the view that the norms for 9 LHPs have already been relaxed considering the actual conditions at the plant site and, therefore, further relaxation of the approved norms is not justified unless under exceptional circumstances. The reasons for not achieving NAPAF as submitted by the Petitioner for MB-I, Chilla and Ramganga is on account of site conditions & the Commission while approving the NAPAF for the first Control Period in its Order dated 03.09.2013 had already envisaged operating problems due to the site conditions as stated by the Petitioner for FY 2014-15.

The Commission, therefore, is of the view that any further relaxation with regard to the NAPAF of MB-I, Chilla and Ramganga is not justified, and therefore, no relaxation has been allowed by the Commission. With regard to Khatima, the Petitioner has sought relaxation in NAPAF due to forced closure of the Power Station w.e.f. 31.08.2014 on account of breaching of Power Channel. In this regard, District Magistrate, Khatima had constituted a Committee to investigate the matter. In this regard, the Commission is of the view that the Petitioner should submit copy of the investigation report alongwith the next APR Petition and based on the findings of the report, the Commission shall take a view on the same in the next tariff proceedings.

B. Relaxation sought for MB-II

The NAPAF for MB-II was fixed as 85% in the MYT Order issued for the first Control Period from FY 2013-14 to FY 2015-16. Thereafter, the Commission vide its Order dated 03.09.2013 disposed of the Petitioner's Review Petition dated 01.07.2013 and had re-determined NAPAF of MB-II at 71%, 73% and 74% for FY 2013-14, 2014-15 and FY 2015-16 respectively. The Petitioner in its Tariff Petition for FY 2014-15 had submitted that the power station remained closed from 11.03.2014 to 06.06.2014 for carrying out flood protection work at Joshiyara Barrage. The Commission in its Order dated 11.04.2015 had taken cognizance of the shutdown and allowed relaxed NAPAF for FY 2013-14. However, with regard to the period falling under FY 2014-15, the Commission had stated as follows:

> *"Further, with regard to the revision of NAPAF due to the shutdown for the balance period i.e. 01.04.2014 to 06.06.2014, the Petitioner may bring up this issue while filing the true-up petition for FY 2014-15."*

The Petitioner, in its instant Petition, has claimed NAPAF of 42.73% for FY 2014-15. In support of its claim the Petitioner has submitted that the plant was again under shutdown for carrying out TRC modification works from 20.02.2015 to 08.05.2015.

The Commission has considered the shutdown during FY 2014-15 for the period 01.04.2014 to 06.06.2014 and 20.02.2015 to 31.03.2015 while relaxing the NAPAF for the said financial year. The Commission has compared the average PAFM for the period 01.04.2014 to 06.06.2014 of past 5 years with the actual PAFM achieved during the said period and shortfall of PAFM for the said period vis-à-vis the average of past 5 years for the same period has been considered as having been caused by plant closure for carrying out flood protection works. Similarly, the Commission has given effect to the closure of plant due to TRC modification work from 20.02.2015 to 31.03.2015. Based on the above methodology, the Commission has revised the NAPAF to 53.72% for FY 2014-15.

4.1.1.2 Energy Generation and Saleable Primary Energy

The Commission in its MYT Order dated 06.05.2013 on approval of Business Plan and Multi Year Tariff for the first Control Period from FY 2013-14 to FY 2015-16 had approved the Design Energy equivalent to the Design Energy approved in previous Orders. UJVN Ltd. has not sought any deviation in the approved design energy for FY 2014-15. Accordingly, the Commission decides to maintain the design energy and saleable primary energy as considered in the MYT Order for 9 old large generating stations and MB-II LHP of the Petitioner.

4.1.2 *Financial Parameters*

4.1.2.1 Apportionment of Common Expenses

The Petitioner in its Petition has changed the allocation for indirect expenses from the initial ratio of 80:10:10 to 85:10:5 among 9 LHPs, MB-II and SHPs respectively. The Commission directed the Petitioner to submit the rationale for changing the methodology for apportionment of common expenses. The Petitioner in its reply has submitted that the ratio towards SHPs have been reduced as 22 nos. of SHPs have been transferred to UREDA which has resulted in the reduction in the existing capacities with UJVN Ltd. to 32.70 MW from the earlier 58.10 MW and, therefore, the said expenses have been allocated on to 9 LHPs.

The Commission has gone through the submission made by the Petitioner and observes that almost half of the capacity of the SHPs has been transferred to UREDA and, therefore, the Commission agrees with the methodology proposed by the Petitioner and has considered the same for allocation of common expenses.

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 opening GFA for the nine 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 truing up for FY 2014-15 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 4.2: Approved Capital Cost as on 14.01.2000 (Rs. Crore)

Name of the Generating Stations (9LHPs)	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**

B. Maneri Bhali-II

The Petitioner has requested the Commission to consider the capital cost of Rs. 1939.32 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 vide its Tariff Order dated 10.04.2014 had revised the capital cost of MB-II project as on COD to Rs. 1831.72 Crore against the earlier approved Capital Cost of Rs. 1741.72 Crore. The Commission further in its Tariff Order dated 11.04.2015 had, after carrying out due prudence check and on the basis of recommendations of Expert Committee, revised the Capital Cost as on COD to Rs. 1889.22 Crore. The Commission does not find any reason to re-visit the same except for the reasons discussed below.

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.

Table 4.3: Approved Capital Cost for MB-II as on COD (Rs. Crore)

Particulars	Approved in Tariff dt. 11.04.2015	Approved Now
Capital Expenditure	1494.70	1490.98
Add: Adjustment on Account of DRB Award	44.51	44.51
Price Variation	-7.94	-7.94
Sub-total (A)	**1531.27**	**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)	**1889.22**	**1885.50**

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

Table 4.4: Financing for MB-II as on COD (Rs. Crore)

Particulars	Approved in Tariff Order dt. 11.04.2015	Approved Now
Loans		
PFC Loan	1200.00	1200.00
Unpaid Liability	0.00	0.00
Guarantee Fee Payable	0.00	0.00
Normative Loan	122.45	119.85
Total debts	**1322.45**	**1319.85**
Equity		
PDF	341.39	326.76
GoU Budgetary support	61.38	74.89
Pre-2002 expense	164.00	164.00
Total Equity	**566.77**	**565.65**
Total Loan and Equity	**1889.22**	**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, the Commission had approved the additional capitalization from FY 2001-02 to FY 2013-14 amounting to Rs. 97.22 Crore in its previous Tariff Orders.

Accordingly, the additional capitalisation from FY 2001-02 to FY 2013-14 so far considered by the Commission for 9 LHPs is shown in the Table below:

Table 4.5: Additional Capitalisation already approved by the Commission from FY 2001-02 to FY 2013-14 for 9 LHPs (Rs. Crore)

Name of Generating Station	Amount
Dhakrani	2.62
Dhalipur	4.37
Chibro	23.26
Khodri	11.97
Kulhal	2.40
Ramganga	5.38
Chilla	14.44
MB-I	30.99
Khatima	1.78
Total	**97.22**

Based on the approved capital cost of 9 LHPs as on 14.01.2000 and considering, the additional capitalisation upto FY 2013-14 for these LHPs, the Commission has considered the opening GFA for FY 2014-15 for nine LHPs as presented below:

Table 4.6: Opening GFA for 9 LHPs as considered by the Commission for FY 2014-15 (Rs. Crore)

Name of the Generating Stations	Amount
Dhakrani	15.02
Dhalipur	24.74
Chibro	111.15
Khodri	85.94
Kulhal	19.91
Ramganga	55.40
Chilla	139.33
MB-I	142.91
Khatima	8.97
Total	**603.39**

The Petitioner for its 9 LHPs has claimed the additional capitalisation for FY 2014-15 as given in the Table below:

Table 4.7: Additional Capitalisation for 9 LHPs claimed by the Petitioner for FY 2014-15

Name of the Generating Stations	Amount
Dhakrani	0.02
Dhalipur	0.03
Chibro	0.13
Khodri	0.06
Kulhal	0.02
Ramganga	0.14
Chilla	0.11
MB-I	0.16
Khatima	(2.02)
Total	**(1.36)**

The Commission sought detailed breakup of the R&M expenses for FY 2014-15 from UJVN Ltd., which was submitted by UJVN Ltd. The Commission while going through the submissions observed that the Petitioner had included some of the expenses of capital nature under R&M expenses. The Commission has, accordingly, deducted such expenses from R&M expenses and considered the same as additional capitalisation.

Table 4.8: Expenses of Capital Nature wrongly booked under R&M Expenses for six of the 9 LHPs during FY 2014-15 (Rs. Crore)

Name of the Generating Stations	Expenses of Capital Nature but included in R&M
Dhakrani	0.03
Dhalipur	0.10
Khodri	0.08
Kulhal	0.17
Chilla	0.13
MB-I	0.03
Total	**0.54**

The Commission had determined tariff for 9 LHPs in its MYT Order taking a view that only actual additional capitalisation needs to be considered and, accordingly, the Commission determined the tariff based on the actual additional capitalisation till FY 2011-12. With regard to additional capitalisation for the First Control Period, the Commission in its MYT Order ruled that the Commission shall consider the same at the time of truing up based on the audited accounts. The Commission in its Tariff Order for FY 2015-16 dated 11.04.2015 considered the actual additional capitalisation for FY 2013-14 based on the audited accounts while carrying out the truing up of the said financial year. Accordingly, the Commission while truing up for FY 2014-15 now has considered the actual additional capitalisation based on the audited accounts for FY 2014-15.

The Commission, accordingly, approves additional capitalisation for FY 2014-15 for 9 LHPs as shown below:

Table 4.9: Additional Capitalisation for 9 LHPs for FY 2014-15 approved by the Commission (Rs. Crore)

Name of the Generating Station	Claimed	Approved
Dhakrani	0.02	0.05
Dhalipur	0.03	0.13
Chibro	0.13	0.13
Khodri	0.06	0.14
Kulhal	0.02	0.19
Ramganga	0.14	0.14
Chilla	0.11	0.23
MB-I	0.16	0.19
Khatima	(2.02)	(2.02)
Total	**(1.36)**	**(0.82)**

B. Maneri Bhali-II

With regard to MB-II, UJVN Ltd. submitted that the actual additional capitalisation from COD till FY 2014-15 is based on the audited accounts. The breakup of components of Additional Capitalisation as submitted by UJVN Ltd. till FY 2014-15 is as under:

Table 4.10: Additional Capitalisation submitted by the Petitioner (Rs. Crore)

Components	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Land	0.000	0.00	0.00	0.01	1.27	8.10	5.46	0.00
Building	0.000	-0.01	12.07	6.94	0.00	0.38	37.33	0.03
Major Civil Works	0.000	0.00	2.55	0.00	0.01	0.37	0.14	20.79
Plant & Machinery	0.021	1.26	4.63	0.38	0.14	0.69	-14.47	15.07
Vehicles	0.021	0.09	0.16	0.11	-0.03	0.09	-0.07	0.01
Furniture and Fixtures	0.036	0.28	0.02	0.08	0.00	-0.01	0.01	0.04
Office Equipment & Others	0.017	0.04	0.08	0.01	0.02	0.00	0.01	0.04
Total	**0.095**	**1.66**	**19.50**	**7.53**	**1.40**	**9.62**	**28.42**	**35.98**

With regard to the Additional Capital Works to be carried out post commissioning of the project, UJVN Ltd. had filed a separate Petition for in-principle approval under Balance Capital Works of MB-II and the same was admitted by the Commission as Petition No. 28 of 2014. As the proceedings are in process under the Petition filed by the Petitioner for "True up for FY 2014-15, Annual Performance Review for FY 2015-16 and MYT Petition for FY 2016-17 to FY 2018-19" for MB-II, the Commission has decided to dispose of the matter of Balance Capital Works of MB-II (Petition 28 of 2014) alongwith the aforesaid MYT Petition as some of the works, for which approval of the Commission has been sought, have already been completed by the Petitioner till FY 2014-15. The works proposed by the Petitioner in its Petition No. 28 of 2014 are given below:

(i) Rehabilitation, Construction of Infrastructure works for affected villagers from Joshiyara, Gyansu and Kansain village as per their demands, Compensation for the affected people and Construction of School Building.

(ii) Consultancy expenditure on TRC works & other works except for Joshiyara Barrage/Modification of tail race channel.

(iii) Payments to M/s NPCC against claims of Principal Agreement in accordance with the decision of High Power Committee.

(iv) Liabilities against major civil contracts of MB-II Project.

(v) Construction of Cement Concrete Protection wall around Joshiyara barrage reservoir.

(vi) Construction of Office Building at Joshiyara, Construction of officer's residence at Joshiyara colony and Construction of 04 Nos. Type-IV Residences and 01 Nos. Type-V Residence in Shaktipuram Colony, Chinyalisaur.

(vii) Strengthening of water distribution system of Shaktipuram colony, Chinyalisaur.

(viii) Construction of workshop building at Dharasu power house of MB-II project.

(ix) Protection work on hill slope behind Dharasu power house.

(x) 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).

(xi) 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.

(xii) Testing of surge shaft gate.

(xiii) River training works from Dharasu steel bridge to Dharasu Power house upto TRC.

(xiv) Slope protection work on uphill side of Surge shaft.

Accordingly, the submissions made under Petition No. 28 of 2014 were scrutinized and it was observed that most of the works proposed in the Petition were in the original scope of work and mainly comprised of the works required for safety of the plant, R&R, meeting demand of local population, achieving full capacity of the plant etc. In addition to this, expenditure pertaining to contractual obligations/claims and dispute resolution were also included by UJVN Ltd. in the said Petition.

The proposed works/expenditures were further analyzed w.r.t. the prevailing Regulations of the Commission on additional capitalisation. In this regard, Regulation 24(1) of UERC Tariff Regulations, 2011 stipulates that:

*"**24. Additional capitalization:***

(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 upto 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, in accordance with the provisions of Regulation 23(6);

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."

In line with the provisions of the above Regulation and based on the scrutiny and analysis of the proposal/Petition, the Commission observed that various works/expenditure proposed in the Petition No. 28 of 2014 falls under works deferred for execution, un-discharged liabilities, liabilities to meet award of arbitration or for compliance of the order or decree of a court. Hence, the Commission has decided to dispose of the Petition granting in-principle approval for the works proposed by the Petitioner under Petition No. 28 of 2014 and allows recovery of the expenditures incurred against the proposed works in the ARR of the respective years, as and when the expenditure would be capitalised in the books of account of the Petitioner, subject to prudence check.

Therefore, in accordance with the above decision of the Commission, the claims made by the Petitioner for the period FY 2007-08 to FY 2014-15 under additional capitalisation have been considered by the Commission and included in the current proceedings. However, the matters with regard to liabilities to meet award of arbitration or for compliance of the Order or decree of a Court included in the current proceedings would be suitably adjusted in accordance with the final decision of the Court.

Further, during the scrutiny of the various submissions made by the Petitioner in this regard, it was observed that the Petitioner in its submission dated 29.02.2016 had submitted that an amount of Rs. 6.60 Crore (approx.) pertaining to MB-II Civil Works was skipped in FY 2013-14 during splitting of civil and E&M works and an amount of Rs. 0.44 Crore and -0.04 Crore were not included in FY 2012-13 and FY 2014-15 respectively due to typographical/totalling error by the Petitioner.

Thus, after inclusion of the above claims, year-wise revised additional capitalization claimed by the Petitioner for MB-II from FY 2007-08 to FY 2014-15 are as follows:

Table 4.11: Year-wise Revised Additional Capitalisation claimed by the Petitioner (Rs. Crore)

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
0.095	1.66	19.50	7.53	1.40	10.06	35.05	35.94

Further, the Commission observed that in FY 2008-09, the Petitioner has written back a provisioning amount of Rs. 3.72 Crore which was provided for in the Capital Cost as on COD of the project. The Petitioner further submitted that the amount was provisioned for in the Capital Cost as on COD, however, the same was discharged in FY 2008-09 in the sub-head namely Plant & Machinery under R&M expenses. The Commission has, therefore, as discussed earlier deducted the provisioned amount from the Capital Cost as on COD and considered it as an additional capitalisation in FY 2008-09, which has been wrongly booked under R&M expenses.

The Commission also observed that the Petitioner has provisioned an amount of Rs. 18.81 Crore towards guarantee fees as additional capitalisation for FY 2009-10. The Commission in line with the approach adopted earlier while approving the Capital Cost has not considered the provisioning amount towards guarantee fees.

The Commission further sought detailed breakup of the R&M expenses for FY 2008-09 to FY 2014-15 from UJVN Ltd., which was submitted by UJVN Ltd. The Commission while going through the submissions observed that the Petitioner had included some of the expenses of capital nature under R&M expenses forming considerable part of the total R&M expenses. Such expenses have been deducted from the R&M expenses and have been considered as additional capitalisation for respective years as shown in Table below:

Table 4.12: Capital Nature Works wrongly booking in R&M Expenses (Rs. Crore)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Total
E&M	0.00	8.60	7.44	13.76	0.26	0.00	0.00	0.00	**30.05**
Civil	0.00	0.00	0.00	0.42	0.35	7.84	0.27	0.82	**9.70**
Total	**0.00**	**8.60**	**7.44**	**14.18**	**0.61**	**7.84**	**0.27**	**0.82**	**39.75**

The Commission has, accordingly, adjusted the above additional capitalisation and approves the year wise additional capitalisation as submitted below:

Table 4.13: Year wise Additional Capitalisation approved by the Commission (Rs. Crore)

Particulars of Assets	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Land	0.00	0.00	0.00	0.14	0.56	1.46	10.00	0.00
Building	0.00	(0.01)	0.00	0.15	0.00	1.50	0.57	0.82
Major Civil Works	0.00	0.00	0.42	7.08	1.07	14.18	39.25	20.83
Plant & Machinery	0.02	9.86	7.46	13.97	0.40	0.69	(14.48)	15.06
Vehicles	0.02	0.09	0.16	0.11	(0.03)	0.09	(0.04)	0.00
Furniture and Fixtures	0.04	0.28	0.02	0.08	0.00	(0.01)	0.00	0.03
Office Equipment & Other Items	0.02	0.04	0.08	0.17	0.02	0.00	0.02	0.02
Total	**0.09**	**10.26**	**8.14**	**21.70**	**2.01**	**17.90**	***35.32**	***36.77**

**The amount in FY 2013-14 and 2014-15 includes Rs. 35.30 Crore and Rs. 19.24 Crore respectively, which has been deposited in the Court with respect to matters related to arbitrations of MB-II*

4.1.2.4 Depreciation

A. Old Nine Generating Stations

Regulation 29 of UERC Tariff Regulations 2011 specifies as follows:

"(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.

(3) Provided that in case of generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of site;

Provided further that the capital cost of the assets of the generating station for the purpose of computation of depreciable value for the purpose of determination of tariff under these regulations shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations.

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2013 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2013 from the gross depreciable value of the assets. The difference between the cumulative depreciation recovered and the depreciation so arrived at by applying the depreciation rates as specified in these Regulations corresponding to 12 years shall be spread over the remaining period upto 12 years. The remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance life.

(7) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis."

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 Khatima, Dhakrani, Dhalipur, Ramganga, Kulhal and Chibro, the Petitioner has not claimed any depreciation. The Petitioner has claimed depreciation on the opening GFA only for the remaining three plants, i.e. Khodri, Chilla and 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 and UERC Tariff Regulations, 2011 from 01.04.2013.

With regard to the opening GFA as on January, 2000, the Commission has computed depreciation in accordance with the UERC Tariff Regulations, 2011. All the 9 LHPs are over 12 years old and 6 out of 9 stations have depreciated by 90% of the original cost. Depreciation allowed for Khodri, Chilla and MB-I LHPs have not reached 90% till FY 2014-15, and hence, the Commission has computed the accumulated depreciation on opening GFA till 01.04.2013 to determine the remaining depreciable value for each LHP. The Commission for computing the accumulated depreciation till 01.04.2013 has considered the depreciation rate of 2.38% as considered in previous Tariff Orders till FY 2012-13. Further, in accordance with UERC Tariff Regulations, 2011 and considering the life of 35 years from the COD, the Commission has equally divided the remaining depreciable value as on 01.04.2013 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 2012-13, the Commission has computed the depreciation in accordance with the provisions of UERC Tariff Regulations, 2011. 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 31.03.2013 from the gross depreciable value of the assets. The Commission, further, computed the difference between the cumulative depreciation as on 31.03.2013 and the depreciation so arrived at by applying the depreciation rates as specified in UERC Tariff Regulations, 2011 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 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.

As regards the depreciation computation on assets added during FY 2014-15, the Commission has computed the depreciation by applying the depreciation rates as specified in UERC Tariff Regulations, 2011. Based on the above discussed approach, the summary of depreciation as approved in APR Order dated 10.04.2014 and as approved now by the Commission for FY 2014-15 after truing up is shown in the Table given below:

Table 4.14: Depreciation approved for 9 LHPs after truing up of FY 2014-15 (Rs. Crore)

Name of the Generating Stations	On Opening GFA as on Jan 14, 2000		On Additional Capitalisation upto FY 2014-15		Total Depreciation		
	Approved in Tariff Order for FY 2014-15	Approved now after truing up for FY 2014-15	Approved in Tariff Order for FY 2014-15	Approved now after Truing Up for FY 2014-15	Approved in Tariff Order for FY 2014-15	Claimed by the Petitioner in FY 2014-15	Approved after truing up for FY 2014-15
Dhakrani	0.00	0.00	0.19	0.19	0.19	0.18	0.19
Dhalipur	0.00	0.00	0.30	0.30	0.30	0.30	0.30
Chibro	0.00	0.00	0.73	1.33	0.73	1.33	1.33
Khodri	0.59	0.59	0.77	0.78	1.36	1.37	1.37
Kulhal	0.00	0.00	0.16	0.17	0.16	0.17	0.17
Ramganga	0.00	0.00	0.32	0.35	0.32	0.34	0.35
Chilla	5.36	5.36	1.33	1.34	6.69	6.72	6.70
*MB-I	2.58	2.58	1.34	1.44	3.92	4.41	4.02
Khatima	0.00	0.00	0.25	0.11	0.25	0.11	0.11
Total	**8.53**	**8.53**	**5.40**	**6.01**	**13.93**	**14.93**	**14.54**

**Including DRB*

B. Maneri Bhali-II

As discussed earlier, the Commission has worked out the additional capitalization from FY 2007-08 to FY 2014-15 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 in this Order. In addition, the Commission has allowed Advance Against Depreciation (AAD) from COD to FY 2012-13 in accordance with the UERC Tariff Regulations, 2004.

The Commission for computing the depreciation for FY 2013-14 and FY 2014-15 in accordance with the UERC Tariff Regulations, 2011 has computed the balance depreciable value for MB-II by deducting the cumulative depreciation as admitted by the Commission upto 31.03.2013 from the gross depreciable value of the assets. The Commission, further, computed the difference between the cumulative depreciation as on 31.03.2013 and the depreciation so arrived at by applying the depreciation rates as specified in UERC Tariff Regulations, 2011 corresponding to 12 years. The Commission has spread the above difference in the remaining period upto 12 years from COD of MB-II. Further, as UERC Tariff Regulations, 2011 does not provide for Advance Against

Depreciation (AAD), the Commission while computing the depreciation has not allowed the AAD for FY 2013-14 and 2014-15.

In line with the above approach, the Commission has computed the depreciation for FY 2007-08 to FY 2014-15 for MB-II on the approved capital cost as on COD of Rs. 1885.50 Crore alongwith additional capitalisation as approved above. Accordingly, the Commission in this Order has trued up the depreciation including advance against Depreciation for FY 2007-08 to FY 2014-15 as follows:

Table 4.15: Revised Depreciation including AAD for MB-II from FY 2007-08 to FY 2014-15 (Rs. Crore)

Particulars	Approved in Tarff Order for dated 11.04.2015	Approved after Truing Up
FY 2007-08	2.26	2.25
FY 2008-09	69.99	69.74
FY 2009-10	132.25	132.71
FY 2010-11	132.25	132.74
FY 2011-12	132.25	134.80
FY 2012-13	132.25	134.83
FY 2013-14	49.93	52.13
FY 2014-15	69.46	53.47

4.1.2.5 *Return on Equity*

A. Old Nine Generating Stations

Regulation 27 of the UERC Tariff Regulations, 2011 specifies as follows:

"27. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 22.

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 rate of 15.5% for Generating Stations, Transmission Licensee and SLDC and at the rate of 16% for Distribution Licensee on a post-tax basis.

..."

In its 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 regard RoE on Additional Capitalisation, the Commission has considered a normative equity of 30% where 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, it has been observed that UJVN Ltd. has computed the RoE for FY 2014-15 on the average equity at the allowable rate of 15.50% post tax which is not in accordance with the provisions of UERC Tariff Regulations, 2011. As discussed in the earlier Orders, the Commission had observed that as per the practice followed by UJVN Ltd. the capitalisation of assets added during the year occurs on 31st March, i.e. at the end of each financial year. In view of the above, the Commission is following the same approach as adopted in its previous Tariff Orders and has allowed the RoE only on opening equity.

As regard finalization of Transfer Scheme, the Commission in the MYT Order dated 06.05.2013 again directed UJVN Ltd. as follows:

"The Commission in view of the above once again directs UJVN Ltd. to take steps to coordinate with UPJVNL for finalisation of transfer without further delay and submit quarterly progress in this regards to the Commission."

In compliance to the above directions, UJVN Ltd. in its ARR & Tariff Petition for FY 2014-15 submitted that the transfer scheme finalisation is under way and the same is being followed on a regular basis. In this regard, the Commission in the Tariff Order for FY 2014-15 dated 10.04.2014 directed UJVN Ltd. as follows:

"The Commission directs UJVN Ltd. that till the time transfer scheme is finalised it should submit the quarterly progress report to the Commission."

As the Transfer Scheme is yet to be finalized, the Commission is, provisionally, allowing a return on normative equity @ 15.50% post tax in accordance with the provisions of the Tariff Regulations and the approach as discussed in the above paragraphs. The summary of the Return on Equity approved for 9 LHPs for FY 2014-15 is shown in the Table given below:

Table 4.16: Equity and Return on Equity for Nine Old LHPs for FY 2014-15 (Rs. Crore)

Name of the Generating Station	RoE approved in Tariff Order dated 10.04.2014 for FY 2014-15			Claimed by the Petitioner		Approved after Truing Up for FY 2014-15				
	On Transferred Asset	On Additional Capitalisation	RoE	Average Equity	RoE	On Transferred Asset as on Jan 14, 2000		On Additional Capitalisation upto FY 2013-14		Total
						Normative Equity	RoE	Opening Equity	RoE	RoE
Dhakrani	0.58	0.13	0.70	4.51	0.70	3.72	0.58	0.79	0.12	0.70
Dhalipur	0.95	0.20	1.15	7.44	1.15	6.11	0.95	1.31	0.20	1.15
Chibro	4.09	0.53	4.62	33.49	5.19	26.37	4.09	6.79	1.05	5.14
Khodri	3.44	0.54	3.98	25.80	4.00	22.19	3.44	3.53	0.55	3.99
Kulhal	0.81	0.11	0.92	6.00	0.93	5.25	0.81	0.72	0.11	0.93
Ramganga	2.33	0.23	2.56	16.95	2.63	15.01	2.33	1.61	0.25	2.58
Chilla	5.81	0.65	6.46	41.72	6.47	37.47	5.81	4.23	0.66	6.46
MB-I	5.10	1.43	6.54	42.73	6.62	32.92	5.10	9.30	1.44	6.54
Khatima	0.33	0.08	0.42	8.78	1.36	2.16	0.33	0.53	0.08	0.42
Total	**23.43**	**3.91**	**27.34**	**187.42**	**29.05**	**151.19**	**23.43**	**28.82**	**4.47**	**27.90**

4.1.2.6 *Maneri Bhali-II*

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.

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 as discussed above. The cost of such cess is further passed on to UPCL which in turn recovers the same from ultimate consumers of electricity through tariffs.

The Commission on account of change in the financing of the project on account of finalization of the Capital Cost and additional capitalisation has revised the RoE allowed for FY 2007-08 to FY 2014-15 as shown below:

Table 4.17: RoE Approved for MB-II for FY 2007-08 to FY 2014-15 (Rs. Crore)

Particulars	Approved in Tariff Order dated 11.04.2015	Approved after Final Truing Up FY 2014-15
FY 2007-08	1.47	1.55
FY 2008-09	31.55	33.44
FY 2009-10	31.55	33.44
FY 2010-11	31.55	33.44
FY 2011-12	31.55	33.44
FY 2012-13	31.55	33.44
FY 2013-14	34.93	37.03
FY 2014-15	32.26	37.65

4.1.2.7 *Interest on Loans*

A. Old Nine Generating Stations

The Petitioner submitted that as per the provisions of Regulation 22 of UERC Tariff Regulations, 2011, 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 2014-15 and the repayment has been considered as equal to the depreciation claimed for the year.

For the purpose of truing up and computing the interest expenses for FY 2014-15, the Commission has determined the normative loan in accordance with the Regulations. The

Commission, in accordance with UERC Tariff Regulations, 2011 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 12.14%. Thus, the Commission has considered the interest rate of 12.14% for computing the interest expenses for 9 LHP.

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 2014-15 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 4.18: Interest on Loan for Nine Old LHPs for FY 2014-15 (Rs. Crore)

Name of the Generating Station	Approved in APR Order dt. 10.04.2014	Interest Claimed	Approved after Truing Up		
			Opening Loan	Closing Loan	Interest
Dhakrani	0.10	0.09	0.78	0.59	0.08
Dhalipur	0.15	0.15	1.38	1.08	0.15
Chibro	0.57	1.42	12.80	11.47	1.47
Khodri	0.41	0.39	4.04	2.67	0.41
Kulhal	0.08	0.08	0.76	0.60	0.08
Ramganga	0.19	0.22	1.92	1.58	0.21
Chilla	0.00	0.00	0.08	0.00	0.00
MB-I	1.57	1.53	14.49	10.23	1.50
Khatima	0.03	1.80	0.54	0.43	0.06
Total	**3.11**	**5.68**	**36.79**	**28.65**	**3.97**

B. Maneri Bhali-II

The Commission has approved the Capital Cost of Maneri Bhali-II on COD and the financing thereof. 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.

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 these loans availed for the project. For calculating the interest expense for FY 2014-15, the Commission has considered the interest rate of 11.41% for MB-II.

Further, the Commission has now adjusted the yearly interest refunds received by the Petitioner as the same was not done previously pending finalisation of truing up of the past years.

As discussed above, the Commission has computed the weighted average interest rate of 11.41% based on the outstanding PFC loans and GoU loans. The Commission for computing interest for MB-II station for FY 2014-15 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 31.03.2015 has computed the interest expenses for FY 2014-15 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 28(3) of UERC Tariff Regulations, 2011 has considered the repayment for FY 2014-15 equal to the depreciation allowed for that year.

Further, the Commission in its Order dated 22.01.2016 in Misc. Appeal No. 58 of 2015 stated that the guarantee fee calculation on the basis of opening loan as against closing loan shall be considered at the time MYT Petition. The Commission has, therefore, for computing guarantee fee on PFC loan has considered opening value of loan as against the previous approach of closing value.

Based on the above considerations and the UERC Tariff Regulations, 2011, the Commission has calculated the interest expenses for MB-II for FY 2007-08 to FY 2014-15 as shown in the Table below:

Table 4.19: Interest on Loan as approved for FY 2007-08 to FY 2014-15 (Rs. Crore)

Particulars	Approved in APR Order dated 11.04.2015	Approved after Truing Up
FY 2007-08	6.96	6.94
FY 2008-09	171.31	168.66
FY 2009-10	146.98	138.48
FY 2010-11	124.42	124.28
FY 2011-12	109.71	111.03
FY 2012-13	95.04	96.55
FY 2013-14	91.19	95.45
FY 2014-15	80.09	85.52

4.1.2.8 Operation & Maintenance (O&M) Expenses

4.1.2.8.1 Truing up of O&M Expenses for FY 2014-15 (Nine Large Generating Stations)

The Petitioner submitted that O&M expenses for FY 2014-15 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 has submitted the actual O&M expenses on the basis of actual figures of audited accounts for FY 2014-15. Further, the Petitioner has submitted the separate details of employee, R&M and A&G expenses.

The Commission does not deem it appropriate to revise every component of annual fixed charges as approved in MYT Order based on the latest actual data available as this would defeat the whole purpose of having a Multi Year Tariff. 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 52(2) of UERC Tariff Regulations, 2011. Accordingly, for projecting the O&M expenses for FY 2014-15, the Commission has considered FY 2011-12 as the base year expenses. The Commission for the purpose of escalation has considered following escalation rates.

Table 4.20: Escalation Rates as considered by the Commission

Particulars	FY 2013-14	FY 2014-15
CPI Inflation	9.76%	9.50%
WPI Inflation	8.62%	7.42%

Further, for the purpose of arriving at employee expenses for FY 2014-15, 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 a Constant Factor 'K' as determined in the Tariff Order dated 10.04.2014 for FY 2014-15.

4.1.2.8.1.1 Employee Cost

The Commission has considered the same approach for computation of employee expenses for FY 2014-15 as considered by it in MYT Order dated 06.05.2013. Growth Factor 'Gn' has been considered as given below:

Table 4.21: Growth Factor 'Gn' as considered by the Commission for FY 2014-15

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Gn	**1.05%**	**0.00%**	**0.00%**

Accordingly, the Commission has approved the employee expenses for FY 2014-15 as shown in the Table below:

Table 4.22: Employee Expenses approved for FY 2014-15 (Rs. Crore)

Name of the Generating Stations	Approved in Tariff Order dated 10.4.2014	Claimed	Approved after Truing Up
Dhakrani	6.88	9.29	6.95
Dhalipur	10.39	6.86	10.49
Chibro	28.72	29.56	29.00
Khodri	15.86	14.38	16.02
Kulhal	6.12	5.14	6.18
Ramganga	19.27	20.99	19.46
Chilla	20.98	22.62	21.19
MB-I	15.34	16.89	15.49
Khatima	8.53	9.88	8.61
Total	**132.08**	**135.61**	**133.40**

4.1.2.8.1.2 Repairs and Maintenance Expenses

The Commission has considered the same constant factor 'K' as determined by the Commission in the Tariff Order dated 10.04.2014 as follows:

Table 4.23: K-Factor as considered by the Commission

Station	Average of 3 years
Dhakrani	13.60%
Dhalipur	12.15%
Chibro	6.33%
Khodri	2.90%
Kulhal	9.13%
Ramganga	4.15%
Chilla	5.46%
MB-I	11.83%
Khatima	26.60%
Total	**7.39%**

For computing the R&M expenses for FY 2014-15, the Commission has multiplied the K Factor as given above with the opening GFA approved for FY 2014-15. The Commission has considered the average increase in WPI for last three years from FY 2011-12 to FY 2013-14 as 7.42%. Accordingly, the Commission has approved the R&M expenses for FY 2014-15 as shown in the Table below:

Table 4.24: R&M Expenses approved for FY 2014-15 (Rs. Crore)

Name of the Generating Stations	Tariff Order dated 10.04.2014 for FY 2014-15	Claimed	Approved after Truing Up for FY 2014-15
Dhakrani	2.39	5.22	2.38
Dhalipur	3.48	3.88	3.51
Chibro	7.34	7.65	8.21
Khodri	2.89	2.52	2.90
Kulhal	2.11	1.08	2.12
Ramganga	2.65	1.93	2.68
Chilla	8.82	12.83	8.87
MB-I	19.61	12.52	19.72
Khatima	2.76	2.90	2.78
Total	**52.06**	**50.53**	**53.18**

4.1.2.8.1.3 Administrative & General Expenses

The Commission in its MYT Order dated 06.05.2013 on approval of Business Plan and MYT for the Control Period FY 2013-14 to FY 2015-16 approved the A&G expenses in accordance with the UERC Tariff Regulations, 2011. The Commission is considering the same approach for determining the A&G expenses for FY 2014-15. The WPI escalation rate is revised to 7.42% based on the actual values. Accordingly, the Commission has approved the A&G expenses as shown in the Table below:

Table 4.25: A&G Expenses approved for FY 2014-15 (Rs. Crore)

Name of the Generating Stations	Tariff Order dated 10.04.2014 for FY 2014-15	Claimed	Approved after Truing Up for FY 2014-15
Dhakrani	0.54	1.55	0.51
Dhalipur	0.90	1.34	0.83
Chibro	3.36	5.31	3.18
Khodri	1.48	2.73	1.44
Kulhal	0.47	0.77	0.44
Ramganga	2.33	3.87	2.25
Chilla	2.31	3.80	2.33
MB-I	1.44	2.53	1.34
Khatima	0.53	1.24	0.46
Total	**13.36**	**23.14**	**12.76**

Further, as per UERC Tariff Regulations, 2011, O&M Expenses are controllable expenses and accordingly, the sharing of gains and losses have been carried out for O&M expenses and Interest on Working Capital. For computing net gain or loss, the Commission has considered actual O&M expenses excluding interest on GPF trust and generation incentive which works out to be Rs.202.64 Crore.

Accordingly, the Commission has approved the total O&M expenses for FY 2014-15 as shown in the Table below:

Table 4.26: O&M Expenses approved for FY 2014-15 (Rs. Crore)

Name of the Generating Stations	Approved in Tariff Order dt. 10.4.2014 for FY 2014-15	Claimed	Approved for Sharing	Approved after Truing Up for FY 2014-15	Efficiency gain/(loss)	Net Entitlement
Dhakrani	9.82	16.06	15.81	9.84	(5.96)	11.33
Dhalipur	14.77	12.08	11.65	14.83	3.19	14.19
Chibro	39.43	42.52	40.98	40.39	(0.58)	40.54
Khodri	20.23	19.63	18.78	20.36	1.57	20.04
Kulhal	8.69	6.99	6.63	8.74	2.11	8.31
Ramganga	24.25	26.79	25.52	24.38	(1.13)	24.67
Chilla	32.12	39.25	38.20	32.39	(5.81)	33.84
MB-I	36.39	31.94	31.33	36.55	5.22	35.51
Khatima	11.82	14.02	13.75	11.85	(1.97)	12.33
Total	**197.52**	**209.28**	**202.64**	**199.34**	**(3.30)**	**200.77**

4.1.2.8.2 O&M Expenses for Maneri Bhali-II

As discussed earlier, the Commission has approved the capital cost of MB-II as on COD. The Commission for computing normative O&M Expenses has first computed the O&M Expenses for MB-II for the base year of FY 2007-08 at 1.5% of the capital cost, as approved by the Commission, for the first year of operation and then suitably escalated it with the escalation rate, as approved by the Commission, for the respective years. 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 O&M expenses on the basis of Regulation 52 of UERC Tariff Regulations, 2011.

Table 4.27: Normative O&M Expenses as approved for FY 2007-08 to FY 2014-15(Rs. Crore)

Particulars	Approved in Tariff Order dated 10.04.2014	Approved in Tariff Order dated 11.04.2015	Normative after Truing Up of Capital Cost
FY 2007-08	1.28	1.32	1.31
FY 2008-09	29.26	30.18	30.12
FY 2009-10	31.17	32.15	32.08
FY 2010-11	33.13	34.17	34.10
FY 2011-12	35.46	36.58	36.50
FY 2012-13	37.96	39.79	39.71
FY 2013-14	39.06	43.42	43.33
FY 2014-15	44.93	-	46.95

Regulation 9(3) of the UERC Truing up Regulations, 2008 specifies as follows:

"(3) Variation in O&M Expenses due to actual escalation rate, to be determined on the basis of separate Regulations on the subject, being different from that approved in the Tariff Order shall be considered as pass through. Provided that no adjustment shall be required to be done if the variation is within 10% of approved level."

The Commission has, accordingly, trued up O&M expenses for years in which the actual O&M expenses is in variation of more than 10%. The Commission, accordingly, approves the O&M expenses as shown in the Table below:

Table 4.28: O&M Expenses approved for MB-II (Rs. Crore)

Particulars	Claimed in Petition	Adjusted claim considered for Tariff Purpose	Normative after Truing up of Capital Cost	Variation (%)	Approved for Tariff Purposes
FY 2007-08	1.31	1.31	1.31	0.00	1.31
FY 2008-09	26.16	17.03	30.12	43.47	17.03
FY 2009-10	32.18	24.25	32.08	24.41	24.25
FY 2010-11	37.61	22.82	34.10	33.08	22.82
FY 2011-12	44.36	41.82	36.50	(14.57)	41.82
FY 2012-13	47.97	39.87	39.71	0.00	39.71

Further, the MYT Regulations, 2011 specify for sharing of gains/losses due to controllable factors. As already discussed above, O&M expenses have been considered as controllable factor, accordingly, the gains/losses for FY 2013-14 and FY 2014-15 will have to be shared in the manner given in the Table below:

Table 4.29: O&M Expenses approved after sharing of gains and losses (Rs. Crore)

Particulars	Claimed in Petition	Adjusted claim considered for Tariff Purpose	Normative after Truing up of Capital Cost	Efficiency gain/(loss)	Generator Share	Net Entitlement
O&M Expenses		**A**	**B**	**C=B-A**	**D=75%xC (Loss) = 80%xC (Gain)**	**E=A+D**
FY 2013-14	51.60	51.16	43.33	(7.83)	(5.87)	45.72
FY 2014-15	37.71	36.01	46.95	10.95	8.76	46.47

4.1.2.9 *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 Regulations, on normative basis. The rate of interest considered by the Petitioner for computing interest on working capital for FY 2014-15 has been considered as 14.75% on the basis of the PLR of State Bank of India, as considered by the Commission, in its previous Orders.

The components of working capital as per Regulation 34 (1) c) of UERC Tariff Regulations, 2011 are as follows:

"(i) Operation and maintenance expense for one month;

(ii) Maintenance spares @ 15% of operation and maintenance expenses; and

(iii) Receivables for sale of electricity equivalent to two months of the annual fixed charges calculated on normative capacity index."

With respect to the interest on working capital, Regulation 34 of the UERC Tariff Regulations, 2011 specifies as under:

"34. Interest on Working Capital

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.

(1) Generation:

...

c) In case of hydro power generating stations, working capital shall cover:

(i) Operation and maintenance expenses for one month;

(ii) Maintenance spares @ 15% of operation and maintenance expenses; and

(iii) Receivables for sale of electricity equivalent to two months of the annual fixed charges calculated on normative capacity index.

..."

4.1.2.9.1 One Month O&M Expenses

The Commission has trued up the annual O&M expense plant wise for FY 2014-15. 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.

4.1.2.9.2 *Maintenance Spares*

The Commission has considered the maintenance spares in accordance with UERC Tariff Regulations, 2011. The Commission has determined the plant wise maintenance spares requirement @ 15% of the trued up O&M Expenses for FY 2014-15.

4.1.2.9.3 *Receivables*

Regulations envisage 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 2014-15.

As regards the interest on working capital, Regulation 34 of the UERC Tariff Regulations, 2011 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 2014-15 was filed on 29.11.2013, 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 2014-15 as approved by the Commission is as shown in the Table below:

Table 4.30: Interest on Working Capital for Nine LHPs for FY 2014-15 (Rs. Crore)

Plant	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 APR Order dt.10.04.2014	Claimed	Normative Approved after Truing Up
Dhakrani	0.94	1.70	2.04	4.68	0.61	0.86	0.69
Dhalipur	1.18	2.13	2.60	5.91	0.92	0.80	0.87
Chibro	3.38	6.08	7.68	17.14	2.49	2.60	2.53
Khodri	1.67	3.01	4.12	8.80	1.35	1.29	1.30
Kulhal	0.69	1.25	1.56	3.50	0.55	0.47	0.52
Ramganga	2.06	3.70	4.06	9.81	1.51	1.54	1.45
Chilla	2.82	5.08	7.72	15.62	2.24	2.51	2.30
MB-I	2.96	5.33	6.53	14.82	2.49	2.09	2.19
Khatima	1.03	1.85	2.01	4.89	0.72	0.85	0.72
Total	**16.73**	**30.11**	**38.32**	**85.17**	**12.89**	**13.01**	**12.56**

Further, the UERC Tariff Regulations, 2011 specify for sharing of gains/losses due to controllable factors and as per UERC Tariff Regulations, 2011, variation in working capital requirements is a controllable factor. The actual interest on working capital for UJVNL as per audited accounts is Rs. 0.29 Crore. The Commission has considered the allocation of the actual working capital interest in the ratio considered for allocation of indirect expenses i.e. allocation in the ratio of 85:10:5 amongst 9 LHPS, MB-II and SHPs respectively. 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, 2011.

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

Table 4.31 Interest on Working Capital for Nine LHPs for FY 2014-15 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=20%xC	E=B-D
Interest on Working Capital	0.29	12.56	12.27	2.45	10.11

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, 2011 as shown in the Table below:

Table 4.32 Revised Interest on Working Capital as approved for FY 2007-08 to FY 2014-15 (Rs. Crore)

Particulars	Approved Tariff Order FY 2014-15	Approved in Tariff Order dated 11.04.2015 for FY 2015-16	Approved after Truing Up
FY 2007-08	0.36	0.37	0.38
FY 2008-09	8.64	8.81	8.38
FY 2009-10	9.64	9.99	9.62
FY 2010-11	9.00	9.44	9.16
FY 2011-12	9.92	10.39	10.74
FY 2012-13	11.25	11.79	12.00
FY 2013-14	6.62	6.92	7.33
FY 2014-15	6.61	7.25	7.15

As discussed above, as the actual interest on working capital incurred by the Petitioner for FY 2013-14 and FY 2014-15 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, 2011.

The interest on working capital for MB-II after sharing the gains for FY 2013-14 is as given in Table below:

Table 4.33: Interest on Working Capital for MB-II for FY 2013-14 and FY 2014-15 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=20%xC**	**E=B-D**
FY 2013-14	0.15	7.33	7.18	1.44	5.89
FY 2014-15	0.03	7.15	7.12	1.42	5.73

4.1.2.10 Annual Fixed Charges for Nine LHPs for FY 2014-15

Based on the above analysis, the Commission has worked out the approved figures of Gross AFC for FY 2014-15 after truing up. The summary of Gross AFC for FY 2014-15 is as shown in the Table below:

Table 4.34: Summary of AFC for FY 2014-15 (Rs. Crore)

Name of Generating Stations	Approved in Tariff Order dt. 10.04.2014 for FY 2014-15	AFC Claimed	AFC Approved after truing up of FY 2014-15					
			Depreciation	Interest on loan	Interest on Working Capital after sharing of gains	O&M expenses	RoE	Gross Annual Fixed Cost
Dhakrani	11.43	17.89	0.19	0.08	0.55	11.33	0.70	12.86
Dhalipur	17.29	14.48	0.30	0.15	0.70	14.19	1.15	16.50
Chibro	47.83	53.06	1.33	1.47	2.04	40.54	5.14	50.52
Khodri	27.32	26.68	1.37	0.41	1.05	20.04	3.99	26.86
Kulhal	10.42	8.64	0.17	0.08	0.42	8.31	0.93	9.90
Ramganga	28.83	31.52	0.35	0.21	1.17	24.67	2.58	28.97
Chilla	47.51	54.95	6.70	0.00	1.85	33.84	6.46	48.86
MB-I	50.91	46.59	4.02	1.50	1.75	35.51	6.54	49.32
Khatima	13.24	18.14	0.11	0.06	0.58	12.33	0.42	13.49
Total	**254.77**	**271.95**	**14.54**	**3.97**	**10.11**	**200.77**	**27.90**	**257.28**

4.1.2.11 Non Tariff Income

A. Old Nine Large Hydro Generating Stations

Regulation 47 of the UERC Tariff Regulations, 2011 specifies as follows:

> *"47. 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) Income from sale of Ash/rejected coal;*
>
> *e) Interest on delayed or deferred payment on bills;*
>
> *f) Interest on advances to suppliers/contractors;*
>
> *g) Rental from staff quarters;*
>
> *h) Rental from contractors;*
>
> *i) Income from hire charges from contactors and others;*
>
> *j) Income from advertisements, etc.;*
>
> *k) Any other 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 2014-15 in accordance with the audited accounts.

Accordingly, the Commission has considered the plant-wise non-tariff income for truing up purposes as proposed by the Petitioner. Further, as discussed in Commission's Order dated 21.10.2009, that the provision of the Regulations permitting adjustment of non-tariff income from AFC is not in consonance with the 1972 Agreement with HP as the components of cost of generation specified in Schedule-VIII of The Electricity (Supply) Act, 1948 considers only the cost components and does not provide for adjustment of any kind of revenue. Therefore, in order to have conformity with the provisions of the said agreement, the Commission has not considered any adjustment of proportion of non-tariff income for HPSEB and has considered the entire amount of above said non-tariff income for adjustment in truing up of UPCL's share of AFC. The Non-Tariff income as approved by the Commission for FY 2014-15 is shown in the Table below:

Table 4.35: Non-Tariff Income for 9 LHPs for FY 2014-15 (Rs. Crore)

Name of the Generating Stations	Approved in Tariff Order dated 10.04.2014 for FY 2014-15	Claimed	Approved after Truing Up for FY 2014-15
Dhakrani	0.27	0.64	0.64
Dhalipur	0.36	0.89	0.89
Chibro	1.66	4.45	4.45
Khodri	0.92	2.13	2.13
Kulhal	0.21	0.53	0.53
Ramganga	1.37	4.62	4.62
Chilla	1.21	2.53	2.53
MB-I	0.64	10.13	10.13
Khatima	0.35	1.42	1.42
Total	**6.99**	**27.34**	**27.34**

4.1.2.12 Truing up for Nine LHPs for FY 2014-15 and its net impact on UPCL

The Commission has Trued-up the (Surplus)/Gap for 9 LHPs pertaining to FY 2014-15 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 4.36: Summary of net AFC as Trued up by the Commission for 9 LHPs to be recovered from UPCL (Rs. Crore)

Power Stations	Approved Net AFC in Tariff Order dated 10.04.2014 for FY 2014-15	Total AFC to be recovered without carrying cost after true up for FY 2014-15
Dhakrani	8.30	9.01
Dhalipur	12.61	11.48
Chibro	34.21	33.44
Khodri	19.57	18.01
Kulhal	8.12	7.39
Ramganga	27.46	24.35
Chilla	46.30	46.33
MB-I	50.27	39.19
Khatima	12.89	12.07
Total	**219.73**	**201.28**

The summary of truing up for FY 2014-15 for UPCL after considering the actual performance parameter achieved in FY 2014-15 is shown in the Table below:

Table 4.37: Summary of net truing up for FY 2014-15 for UPCL (Rs. Crore)

Name of the Station	AFC to be recovered from UPCL (Rs Crore)	Capacity Charges (Rs Crore)	NAPAF (%)	Actual PAFY (%)	Capacity charges allowable (Rs Crore)	Capacity charges after sharing	Actual Energy Considered (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 (Rs Crore)	Total recovered from UPCL	Truing up impact
Dhakrani	9.01	4.50	57%	64.00%	5.06	4.95	97.42	0.385	4.50	0.00	0.358	0.00	8.70	8.13	0.57
Dhalipur	11.48	5.74	57%	65.68%	6.62	6.44	171.43	0.401	5.74	28.43	0.401	1.14	13.32	14.84	-1.51
Chibro	33.44	16.72	63%	68.19%	18.10	17.82	646.43	0.301	16.72	90.68	0.301	2.73	37.27	38.46	-1.20
Khodri	18.01	9.01	56%	60.73%	9.77	9.61	297.91	0.352	9.01	41.75	0.352	1.47	20.09	22.01	-1.92
Kulhal	7.39	3.70	65%	74.91%	4.26	4.15	121.20	0.302	3.70	0.00	0.284	0.00	7.81	8.71	-0.90
Ramganga	24.35	12.18	19%	16.71%	10.71	11.07	264.04	0.394	12.18	0.00	0.318	0.00	21.48	23.75	-2.27
Chilla	46.33	23.17	74%	70.07%	21.94	22.25	783.91	0.349	23.17	66.16	0.323	2.14	47.55	49.21	-1.66
MB-I	39.19	19.59	78%	63.89%	16.05	16.94	370.43	0.500	19.59	0.00	0.361	0.00	35.44	43.82	-8.38
Khatima	12.07	6.04	47%	13.82%	1.78	2.84	43.61	0.313	6.04	0.00	0.292	0.00	4.21	3.36	0.84
Total	**201.28**	**100.64**			**94.26**	**96.06**	**2796.37**		**100.64**	**227.02**		**7.47**	**195.87**	**212.28**	**-16.42**

Thus, for 9 LHPs, the Commission has computed the net surplus of Rs. 16.42 Crore for FY 2014-15 on account of sharing of gains and losses and considering the actual performance parameters.

The Commission has Trued-up the (Surplus)/Gap for 9 LHPs pertaining to FY 2014-15 to be recovered by UJVN Ltd. from UPCL and HPSEB. Based on the above, the total amount (refundable)/recoverable by UJVN Ltd. from UPCL and HPSEB along with the carrying cost is as summarized in the Table below:

Table 4.38: Summary of net AFC as Trued up by the Commission for 9 LHPs to be recovered from UPCL (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Opening Balance	-	(17.63)
True Up Amount Gap/(Surplus)	(16.42)	-
Carrying Cost	(1.21)	(2.60)
Closing Balance	(17.63)	(20.23)
Interest Rate	14.75%	14.75%

The Commission directs UJVN Ltd. to refund Rs. 20.23 Crore to UPCL in accordance with the provisions of UERC Tariff Regulations, 2011 in twelve equal monthly instalments starting from April 2016 to March 2017.

4.1.2.13 Truing up of 5 LHPs of UJVN Ltd. for FY 2014-15 for HPSEB

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

Table 4.39: Summary of net AFC as Trued up by the Commission for 9 LHPs to be recovered from HPSEB (Rs. Crore)

Power Stations	Approved Net AFC in APR Order dated 10.04.2014	Total AFC to be recovered without carrying cost after Tariff Order for FY 2014-15
Dhakrani	2.86	3.22
Dhalipur	4.32	4.12
Chibro	11.96	12.63
Khodri	6.83	6.71
Kulhal	2.08	1.98
Ramganga	-	-
Chilla	-	-
MB-I	-	-
Khatima	-	-
Total	**28.05**	**28.66**

Table 4.40: Summary of net AFC as Trued up by the Commission for 9 LHPs to be recovered from HPSEB (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
Opening Balance	-	0.66
True Up Amount Gap/(Surplus)	0.61	-
Carrying Cost	0.05	0.10
Closing Balance	0.66	0.76
Interest Rate	14.75%	14.75%

The Commission directs UJVN Ltd. to recover Rs. 0.76 Crore from HPSEB on the basis of actual NAPAF and energy billed in accordance with the provisions of UERC Tariff Regulations, 2011 in equal twelve equal monthly instalments starting from April, 2016 to March, 2017.

4.1.2.14 Net Annual Fixed Charges for MB-II from FY 2007-08 to FY 2014-15

The impact of approval of Capital cost of MB-II as on COD and additional capitalisation for FY 2007-08 to FY 2014-15 is as shown in the Table below:

Table 4.41: Summary of Net AFC Truing up of MB-II for FY 2007-08 to FY 2014-15 (Rs. Crore)

Particulars	Approved in Tariff Order for FY 2014-15 dated 10.04.2014	Approved in Tarff Order dated for FY 2015-16 dated 11.04.2015	Approved after Truing Up for FY 2014-15
FY 2007-08	11.93	12.37	12.44
FY 2008-09	291.96	296.50	281.90
FY 2009-10	333.17	345.89	331.48
FY 2010-11	312.37	329.74	320.37
FY 2011-12	301.36	318.18	329.54
FY 2012-13	291.51	307.96	314.07
FY 2013-14	219.30	223.87	234.07
FY 2014-15	231.92	231.92	225.86

The summary of truing up of MB-II with regard to the Net AFC approved for FY 2007-08 to FY 2013-14 in the Order dated 11.04.2015 and with regard to AFC approved for FY 2014-15 in the Order dated 10.04.2014 is as shown in the Table below:

4.1.2.15 Net impact on account of truing up of FY 2007-08 to FY 2012-13 of MB-II

Table 4.42: Net impact on account of truing up of FY 2007-08 to FY 2012-13 (Rs. Crore)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13
Trued Up Net AFC	12.44	281.90	331.48	320.37	329.54	314.07
As approved in TO dated 11.04.2015	12.37	296.50	345.89	329.74	318.18	307.96
Impact (Surplus)/Gap	0.07	(14.60)	(14.41)	(9.37)	11.36	6.11

4.1.2.16 Net impact on account of truing up of FY 2013-14 and FY 2014-15 of MB-II

Table 4.43: Net impact on account of truing up of FY 20013-14 and FY 2014-15 (Rs. Crore)

Name of the Station	AFC to be recovered from UPCL (Rs Crore)	Capacity Charges (Rs Crore)	NAPAF (%)	Actual PAFY (%)	Capacity charges allowable (Rs Crore)	Capacity charges after sharing	Actual Energy Considered (MU)	Actual Billed Energy (MU)	Allowable EC (Rs Crore)	Total allowable (Rs Crore)	Total recovered from UPCL	Truing up impact
FY 2013-14	234.07	117.03	57.89%	39.37%	79.59	88.95	1550.44	826.12	62.36	151.31	144.72	6.59
FY 2014-15	225.86	112.93	53.72	42.53	89.40	95.28	1550.44	883.19	64.33	159.61	130.68	28.93

4.1.3 *Net Impact on Account of Truing up of FY 2007-08 to FY 2014-15 of MB-II*

The Commission has Trued-up the (Surplus)/Gap for MB-II pertaining to FY 2007-08 to FY 2014-15 to be recovered by UJVN Ltd. from UPCL. Based on the above, the total amount (refundable)/recoverable by UJVN Ltd. from UPCL along with the carrying cost is summarized in the Table below:

Table 4.44: Summary of net amount Trued up by the Commission for FY 2007-08 to FY 2014-15 to be recovered from UPCL (Rs. Crore)

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Opening (Surplus)/Gap	(0.00)	0.07	(15.42)	(32.60)	(46.35)	(40.27)	(39.66)	(38.43)	(13.03)
True Up Amount	0.07	(14.60)	(14.41)	(9.37)	11.63	6.11	6.59	28.93	(0.00)
Carrying Cost	(0.00)	(0.89)	(2.77)	(4.38)	(5.29)	(5.49)	(5.36)	(3.54)	(1.92)
Closing (Surplus)/Gap	0.07	(15.42)	(32.60)	(46.35)	(40.27)	(39.66)	(38.43)	(13.03)	(14.96)
Interest Rate	12.25%	12.25%	12.25%	11.75%	13.00%	14.75%	14.75%	14.75%	14.75%

Earlier, the Commission in its Order dated 22.01.2016 on a Review Petition of Tariff Order dated 11.04.2015 in the matter of carrying cost on trued-up value for MB-II for FY 2013-14 had decided to consider it while carrying out the final true up of MB-II. Accordingly, the same has been taken up in the current tariff proceedings.

The Commission directs UJVN Ltd. to refund the above approved amount of Rs. 14.96 Crore on account of Truing up of MB-II for FY 2007-08 to FY 2014-15 to UPCL in 12 equal monthly instalments commencing from April 2016 to March 2017.

5 Commission's Analysis, Scrutiny & Conclusion on APR for FY 2015-16 and MYT for the second Control Period from FY 2016-17 to FY 2018-19

5.1 Physical Parameters

5.1.1 *NAPAF*

As discussed in Chapter 3 of this Order, the Commission has already taken a view on the NAPAF for the large hydro generating stations. The Commission has revised the NAPAF for the generating stations as follows:

Table 5.1: NAPAF as approved by the Commission for second Control Period from FY 2016-17 to FY 2018-19

Station	FY 2015-16	Proposed by UJVN Ltd.			Approved		
		FY 2016-17	FY 2017-18	FY 2018-19	FY 2016-17	FY 2017-18	FY 2018-19
Dhakrani	57.00%	61.04%	66.17%	60.94%	61.04%	66.17%	60.94%
Dhalipur	57.00%	57.26%	61.07%	58.62%	57.26%	61.07%	58.62%
Chibro	64.00%	65.06%	65.06%	65.06%	65.06%	65.06%	65.06%
Khodri	57.00%	57.23%	57.23%	57.23%	57.23%	57.23%	57.23%
Kulhal	65.00%	63.52%	62.94%	67.14%	65.00%	65.00%	67.14%
Ramganga	19.00%	17.24%	17.24%	17.24%	19.00%	19.00%	19.00%
Chilla	74.00%	69.57%	63.56%	62.85%	74.00%	74.00%	74.00%
MB-I	79.00%	67.45%	60.05%	70.31%	79.00%	79.00%	79.00%
Khatima	47.00%	47.21%	61.04%	61.04%	47.21%	-	-
MB-II	74.00%	55.74%	55.74%	55.74%	61.51%	-	-

5.1.2 *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 provisionally approves the earlier approved primary energy as design energy for the Control Period. However, the same is subject to revision as and when RMU works for generating stations are completed. Thereafter, for ascertaining the saleable primary energy, normative auxiliary consumption including transformation losses as specified in the UERC Tariff Regulations, 2015 is deducted from the Design Energy to arrive at the saleable primary energy for the second Control Period. The design energy and saleable primary energy provisionally approved by the Commission is shown in the Table below:

Table 5.2: Original Design Energy, Design Energy and Saleable Primary Energy for Second Control Period from FY 2016-17 to FY 2018-19 as approved by the Commission

Name of the 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	194.05	0.70%	1.36	192.69
MB-II	1566.10	1566.10	1.00%	15.66	1550.44
Total	**5050.10**	**4735.23**		**44.65**	**4690.59**

Recognising the fact, that most of the 9 LHP's 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 have resulted in under-recovery of the AFC of the Petitioner. The Commission has, accordingly, relaxed the requirement of the UERC Tariff Regulations, 2015 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 gets completed.

B. Maneri Bhali-II

With regard to the design energy and saleable primary energy, UJVN Ltd. submitted that it has considered the design energy as approved in the previous Control Period.

The Commission 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.

5.2 Financial Parameters

5.2.1 *Apportionment of Common Expenses*

As discussed in detail in Chapter 3 of this Order, the Commission has considered the revised methodology proposed by the Petitioner for allocation of common expenses in the ratio of 85:10:5. The Commission for the second Control Period has considered the above methodology for allocation of common expenses.

5.2.2 *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 second Control Period from FY 2016-17 to FY 2018-19 is considering the opening GFA of nine old LHPs, as on 14.01.2000, as Rs. 506.17 Crore only as per the details given below:

Table 5.3: Approved Original Cost (Rs. Crore)

Name of the Generating Stations	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**

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. The Commission, for the reasons discussed in the above mentioned sections, has revised the capital cost as on COD to Rs. 1885.50 Crore. The financing approved for the project is 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 APR Order dated 11.4.2015	Approved Now
Loans		
PFC Loan	1200.00	1200.00
Unpaid Liability	0.00	0.00
Guarantee Fee Payable	0.00	0.00
Normative Loan	122.45	119.85
Total debts	**1322.45**	**1319.85**
Equity		
PDF	341.39	326.76
GoU Budgetary support	61.38	74.89
Pre-2002 expense	164.00	164.00
Total Equity	**566.77**	**565.65**
Total Loan and Equity	**1889.22**	**1885.50**

5.2.3 *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. 96.40 Crore for the period 01.04.2001 to 31.03.2015 in Chapter 3 of this Order. Hence, the Commission for the purpose of Tariff Computation for second Control Period has considered the revised additional capitalisation till FY 2014-15 as trued up in this Tariff Order.

With regard to additional capitalisation for FY 2015-16, the Commission directed the Petitioner to submit the details of additional capitalisation for FY 2015-16. The Petitioner submitted the actual additional capitalisation details for FY 2015-16 of Rs. 47.57 Crore. The Commission has gone through the submissions of the Petitioner and has provisionally considered Rs. 47.57 Crore additional capitalisation submitted by the Petitioner. The same shall be subject to detailed scrutiny during the truing up of FY 2015-16 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 second Control Period as shown in the Table below:

Table 5.5: Opening GFA as considered by the Commission for the second Control Period (Rs. Crore)

Stations	Opening GFA
Dhakrani	15.16
Dhalipur	24.93
Chibro	111.60
Khodri	86.24
Kulhal	20.14
Ramganga	55.70
Chilla	139.77
MB-I	147.41
Khatima	49.18
Total	**650.14**

With regard to additional capitalisation for FY 2016-17 to FY 2018-19 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 and capex shall be finally allowed after carrying out due prudence check based on the approval of the Commission and actual expenditure incurred. With regards 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 2016-17 to FY 2018-19 as shown in the Table below:

Table 5.6: Additional Capitalisation as proposed by UJVN Ltd. (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Dhakrani	20.15	13.39	28.78
Dhalipur	28.73	33.02	37.14
Chibro	17.83	5.49	3.62
Khodri	13.69	8.00	7.41
Kulhal	60.81	41.15	15.69
Ramganga	2.14	41.35	82.57
Chilla	5.25	48.62	52.20
MB-I	55.23	2.08	2.20
Khatima	50.84	12.34	0.19
Total	**254.67**	**205.44**	**229.80**

The Commission with regard to the additional capitalisation projected for FY 2016-17 to FY 2018-19, has considered the additional capitalisation as approved in Chapter 3 of this Order. The

Commission, accordingly, approves the following additional capitalisation for the second Control Period.

Table 5.7: Additional Capitalisation as approved for second Control Period (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Dhakrani	9.89	0.00	0.00
Dhalipur	28.30	32.60	36.38
Chibro	5.19	0.00	0.00
Khodri	2.60	0.00	0.00
Kulhal	12.16	0.00	0.00
Ramganga	0.00	0.00	0.00
Chilla	2.60	47.43	51.53
MB-I	53.15	0.00	0.00
Khatima	50.00	12.00	0.00
Total	**163.89**	**92.03**	**87.91**

B. Maneri Bhali-II

The Commission, as discussed earlier has decided to consider additional capitalisation since COD and has approved additional capitalisation of Rs. 132.20 Crore till 31.03.2015. With regard to FY 2015-16, the Petitioner submitted the likely additional capitalisation to be incurred in FY 2015-16 as Rs. 114.30 Crore. The Commission has provisionally considered the additional capitalisation as submitted by the Petitioner. The same shall be subject to detailed scrutiny during the truing up of FY 2015-16 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 second Control Period as Rs. 2132 Crore.

With regard to the additional capitalisation proposed during the second Control Period for the works necessary for efficient operation of the plant and balance capital works, the Commission in line with its previous approach shall consider the same on the actual basis subject to prudence check without sharing of gain and losses.

5.2.4 ***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 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, 2015 are applicable from 01.04.2016. Further, UERC Tariff Regulations, 2011, is applicable for the period 1.4.2013 to 31.03.2016. Hence, till FY 2012-13, the Petitioner has calculated depreciation based on Tariff Regulations 2004. The Petitioner has claimed depreciation considering the applicable regulations.

The Commission in accordance with Regulation 28 of UERC Tariff Regulations, 2015 has computed the depreciation for the second 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 been depreciated 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 31.03.2016 to determine the remaining depreciable value for each LHP. The Commission for computing the accumulated depreciation till 31.03.2016 has considered the depreciation rate of 2.38% as considered in previous Tariff Orders. Further, in accordance with 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.

(ii) **Depreciation on additional capitalisation:** In accordance with the 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 at by applying the depreciation rates as specified in UERC Tariff Regulations, 2015 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, 2015 once the final truing up for all the years prior to the first Control Period is carried out. The summary of Depreciation Charges for the Control Period FY 2016-17 to FY 2018-19 as approved by the Commission is shown in the Table below:

Table 5.8: Depreciation charges as approved by the Commission for 9 LHPs for second Control Period (Rs. Crore)

Stations	FY 2016-17				FY 2017-18				FY 2018-19			
	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	0.27	0.00	0.19	0.19	1.71	0.00	0.59	0.59	2.72	0.00	0.59	0.59
Dhalipur	1.11	0.00	0.29	0.29	2.87	0.00	1.45	1.45	4.89	0.00	3.01	3.01
Chibro	1.65	0.00	1.27	1.27	2.55	0.00	1.47	1.47	2.80	0.00	1.46	1.46
Khodri	1.48	0.59	0.73	1.32	2.17	0.59	0.82	1.41	2.57	0.59	0.81	1.40
Kulhal	1.17	0.00	0.17	0.17	4.45	0.00	0.66	0.66	6.88	0.00	0.66	0.66
Ramganga	0.41	0.00	0.31	0.31	0.70	0.00	0.28	0.28	3.12	0.00	0.27	0.27
Chilla	2.02	0.00	0.93	0.93	2.06	0.00	0.79	0.79	4.44	0.00	3.24	3.24
*MB-I	4.89	2.53	1.70	4.23	7.49	2.53	3.87	6.40	7.62	2.53	3.87	6.40
Khatima	4.15	0.00	2.35	2.35	6.81	0.00	4.40	4.40	7.46	0.00	5.05	5.05
Total	**17.15**	**3.12**	**7.94**	**11.05**	**30.81**	**3.12**	**14.33**	**17.44**	**42.50**	**3.12**	**18.96**	**22.08**

**Including DRB claim*

B. Maneri Bhali-II

As regards the depreciation for MB-II for the second Control Period, the Commission 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 31.03.2016 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 at by applying the depreciation rates as specified in UERC Tariff Regulations, 2015 corresponding to 12 years. The Commission has spread over the above difference in the remaining period upto 12 years from COD of MB-II. Further, as UERC Tariff Regulations,2015 does not provide for Advance Against Depreciation (AAD), the Commission while computing the depreciation for the second Control Period has not allowed the AAD.

In line with the above approach, the Commission has computed the depreciation for the second Control Period for MB-II on the approved GFA of Rs. 2132 Crore. The total depreciation for MB-II for the Control Period, accordingly, works out as shown in the Table below:

Table 5.9: Depreciation charges as approved by the Commission for MB-II for second Control Period (Rs. Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	57.32	58.81	57.89	58.81	58.82	58.81

5.2.5 ***Return on Equity***

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 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 15.50% 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 35 of UERC Tariff Regulations, 2015 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, 2015. Further, 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 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 35 of UERC Tariff Regulations, 2015 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 35 of 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 second Control Period is shown in the Tables given below:

Table 5.10: Return on Equity for Nine Old LHPs for FY 2016-17 (Rs. Crore)

Name of the Generating Station	Claimed	Approved		
		On Transferred Asset	On Additional Capitalisation	Total
Dhakrani	1.42	0.58	0.13	0.71
Dhalipur	2.66	0.95	0.21	1.16
Chibro	6.33	4.35	1.14	5.49
Khodri	4.75	3.66	0.60	4.26
Kulhal	3.27	0.81	0.12	0.94
Ramganga	3.07	2.48	0.28	2.76
Chilla	7.56	5.81	0.68	6.48
MB-I	8.74	5.43	1.76	7.19
Khatima	5.15	0.33	1.80	2.13
Total	**42.95**	**24.40**	**6.72**	**31.12**

Table 5.11: Return on Equity for Nine Old LHPs for FY 2017-18 (Rs. Crore)

Name of the Generating Station	Claimed	Approved		
		On Transferred Asset	On Additional Capitalisation	Total
Dhakrani	2.5	0.58	0.59	1.16
Dhalipur	4.32	0.95	1.53	2.48
Chibro	6.91	4.35	1.40	5.75
Khodri	5.29	3.66	0.73	4.39
Kulhal	5.79	0.81	0.69	1.50
Ramganga	4.37	2.48	0.28	2.76
Chilla	8.81	5.81	0.80	6.60
MB-I	10.03	5.43	4.39	9.82
Khatima	6.62	0.33	4.13	4.46
Total	**54.64**	**24.40**	**14.52**	**38.92**

Table 5.12: Return on Equity for Nine Old LHPs for FY 2018-19 (Rs. Crore)

Name of the Generating Station	Claimed	Approved		
		On Transferred Asset	On Additional Capitalisation	Total
Dhakrani	3.62	0.58	0.59	1.16
Dhalipur	6.08	0.95	3.04	3.99
Chibro	7.13	4.35	1.40	5.75
Khodri	5.67	3.66	0.73	4.39
Kulhal	7.22	0.81	0.69	1.50
Ramganga	7.83	2.48	0.28	2.76
Chilla	11.16	5.81	3.00	8.81
MB-I	10.26	5.43	4.39	9.82
Khatima	6.92	0.33	4.68	5.02
Total	**65.89**	**24.40**	**18.80**	**43.20**

B. Maneri Bhali-II

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. 246.50 Crore till FY 2015-16, Rs. 615.84 Crore have been funded through equity. The aforesaid equity amount is 28.89% of the Capital Cost as on 31.03.2016 and is after considering the total actual equity employed by the Petitioner. However, since, out of the total equity of Rs. 615.84 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. Those Orders of the Commission have attained finality. Hence, the Commission does not find the need to allow Return on Equity on GoU contribution from PDF.

The Commission has therefore considered the balance equity of Rs. 264.45 Crore eligible for return purposes for the entire second Control Period. The Commission has computed the RoE at the rate of 15.50% as specified in UERC Tariff Regulations, 2015. The summary of the Return on Equity approved for MB-II for the second Control Period is shown in the Table given below:

Table 5.13: Return on Equity for MB-II for second Control Period (Rs. Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Return on Equity	99.83	43.63	100.55	43.63	101.18	43.63

5.2.6 ***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.

…"

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 12.14%. Thus, the Commission has considered the interest rate of 12.14% for computing the interest expenses for 9 LHP. 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 loans availed for the project. For calculating the interest expense for FY 2014-15, the Commission has considered the interest rate of 11.41% for MB-II. For repayment purpose, the Commission has considered repayment equal to depreciation in accordance with the UERC Tariff Regulations, 2015.

Based on the above considerations and the UERC Tariff Regulations, 2015 the Commission has calculated the interest expense for 9 LHPs for the Control Period as shown in the Table below:

Table 5.14: Interest on Loan for Nine Old LHPs for second Control Period (Rs. Crore)

Name of the Generating Station	FY 2016-17		FY 2017-18		FY 2018-19	
	Interest Claimed	Approved	Interest Claimed	Approved	Interest Claimed	Approved
Dhakrani	1.43	0.05	3.32	0.84	5.12	0.77
Dhalipur	2.91	0.06	5.77	2.14	8.55	4.33
Chibro	2.63	1.20	3.33	1.47	3.39	1.29
Khodri	1.11	0.10	1.78	0.16	2.13	0.04
Kulhal	4.39	0.06	8.72	1.04	10.69	0.96
Ramganga	0.69	0.16	2.90	0.12	8.70	0.09
Chilla	1.66	0.01	3.63	0.17	7.36	3.96
MB-I	3.88	0.84	5.38	4.70	4.84	3.92
Khatima	8.28	3.45	10.32	7.28	9.99	7.73
Total	**26.98**	**5.91**	**45.15**	**17.93**	**60.77**	**23.09**

B. Maneri Bhali-II

As discussed in the preceding paras, the Commission has computed the weighted average interest rate of 11.41% based on the outstanding loans for the project up to 31.03.2016. The Commission for computing interest for MB-II station for the second Control Period has considered the above mentioned interest rate.

The Commission based on the closing loan for MB-II as on 31.03.2016 has computed the interest expenses for second Control Period. The Commission in accordance with UERC Tariff Regulations, 2015 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, 2015, the Commission has calculated the interest expense for MB-II for the second Control Period as shown in the Table below:

Table 5.15: Interest on Loan for MB-II for second Control Period (Rs. Crore)

Particular	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Interest on Loan	76.52	86.80	70.64	79.39	64.53	71.97

5.2.7 *Operation and Maintenance expenses*

Regarding the Operation and Maintenance expenses, Regulation 48(2) of the UERC Tariff Regulations, 2015 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 2014-15, the operation and maintenance expenses for the base year of FY 2014-15 shall be fixed at 2.0% of the capital cost as admitted by the

Commission 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 1.4.2016.***

In case of new hydro electric generating stations, i.e. the hydro electric generating stations declared under commercial operation on or after 1.4.2016, 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.

(d) *Post determination of base O&M Expenses for the base year, i.e. FY 2014-15, the O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. 2015-16 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 2% of the capital cost admitted by the Commission.

- *CPIinflation – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;*
- *WPIinflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;*
- *GFAn-1 – Gross Fixed Asset of the Generating Company for the n-1th year;*
- *Gn is a growth factor for the nth year. 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 in case of a existing generating station governed by Government pay structure, the Commission may consider allowing a separate provision in Employee expenses towards the impact of VIIth Pay Commission.

  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, 2015, 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 preceding three years for the corresponding years and has considered the same for determination of indices during the base year and the second Control Period. The summary of the same is provided in the Table below:

Table 5.16: Escalation Rate as considered by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
CP Inflation	9.76%	9.50%	8.80%
WP Inflation	8.62%	7.42%	5.11%

The submissions of the Petitioner and the Commission's analysis for approving the various components of the O&M expenses for the second Control Period from FY 2016-17 to FY 2018-19 is detailed below.

A. Old Nine Generating Stations

5.2.7.1 Employee expenses

The Petitioner has submitted that for the purpose of computation of O&M expenses it has considered FY 2014-15 as the base year as per the Regulation. Further, the components of total O&M expenses for FY 2014-15 have been considered as per plant wise balance sheet. Accordingly, the Petitioner has proposed the employee expenses of Rs. 182.43 Crore, Rs. 198.66 Crore and Rs. 217.65 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

The Commission has computed the employee expenses in accordance with the UERC Tariff Regulations, 2015. In accordance with the UERC Tariff Regulations, 2015, the Gn (growth factor) is to be considered in the computation of employee expenses. The Commission, in the approval of Business Plan for the second Control Period from FY 2016-17 to FY 2018-19 as discussed in Chapter 3 of the Order has approved the HR Plan. Based on the approved HR Plan, the Commission has computed the Gn factor as shown in the Table below:

Table 5.17: Gn approved by the Commission

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Gn	0.00%	0.79%	1.91%	0.00%	0.00%

In accordance with UERC Tariff Regulations, 2015, CPI inflation which is the average increase in the Consumer Price Index (CPI) for the preceding three years is to be considered. The Commission has calculated the annual growth in values of CPI (overall) based on average of preceding three full years for FY 2014-15 as 9.50% and for FY 2015-16 as 8.80%.

The Commission has averaged the actual employee expenses excluding interest on GPF trust and generation incentive for FY 2012-13 to FY 2014-15 to arrive at the employee expenses for the median year FY 2013-14. Thereafter, the gross employee expenses thus arrived for FY 2013-14 has been escalated by appropriate CPI inflation to arrive at employee expenses for the second Control Period.

The Government of India, vide Notification No. 1/1/2013-E.III(A) of 28.02.2014 appointed the Seventh Central Pay Commission with specified Terms of Reference. The Seventh Central Pay Commission submitted its report to the Government of India on 19.11.2015. In light of the recommendations of the Seventh Central Pay Commission and the provisions of the UERC Tariff Regulations, 2015, UJVN Ltd, being governed by the Government pay structure, the Commission has considered the impact of Seventh Pay Commission to the tune of 20% of the approved net employee expenses. The Commission shall consider the actual impact of Seventh Pay Commission during each year of the second Control Period in truing up exercise without considering the efficiency gain/loss on account of the same. The normative employee expenses approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 is as shown in the Table below:

Table 5.18: Employee expenses approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	12.49	11.36	13.60	12.36	14.90	13.44
Dhalipur	9.23	12.73	10.05	13.86	11.01	15.07
Chibro	39.77	40.22	43.31	43.76	47.45	47.61
Khodri	19.35	21.22	21.07	23.09	23.08	25.12
Kulhal	6.91	8.31	7.52	9.04	8.24	9.84
Ramganga	28.24	26.80	30.75	29.16	33.69	31.73
Chilla	30.44	32.91	33.15	35.81	36.31	38.96
MB-I	22.72	25.32	24.74	27.55	27.10	29.98
Khatima	13.29	14.03	14.47	15.26	15.85	16.61
Total	**182.43**	**192.90**	**198.66**	**209.88**	**217.65**	**228.36**

The overall employee expenses approved by the Commission for the second Control Period of FY 2016-17 to FY 2018-19 is higher than as claimed by UJVN Ltd. mainly due to the impact of Seventh Pay Commission considered by the Commission, which shall be subject to true up based on the actuals.

5.2.7.2 R&M expenses

The Petitioner submitted that the R&M expenses for the second Control Period from FY 2016-17 to FY 2018-19 has been proposed as per the UERC Tariff Regulations, 2015. Accordingly, the Petitioner has proposed the R&M expenses of Rs. 72.44 Crore, Rs. 107.04 Crore and Rs. 140.34 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

The Commission has determined the R&M expenses for the second Control Period from FY 2016-17 to FY 2018-19 in accordance with UERC Tariff Regulations, 2015. The Commission has computed the percentage of actual R&M expenses upon actual opening GFA for each year of FY 2012-13 to FY 2014-15. Thereafter, the Commission has considered the average of such percentages as K factor. The Commission has considered the opening GFA for each year of the second Control Period from FY 2016-17 to FY 2018-19. The Commission has considered the WPI inflation of 5.11% which is the average increase in the Wholesale Price Index (WPI) for FY 2012-13 to FY 2014-15. The Commission has computed R&M Expenses for the second Control Period as per the methodology as stated above using the following formulae.

$R\&M_n = K \times (GFA_{n-1}) \times (1+WPIinflation)$

With regards to the generating station undergoing RMU works or planned for RMU works in the second Control Period the Commission in its Regulation 48(2) of UERC Tariff Regulations, 2015 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 2% of the capital cost admitted by the Commission. The Commission further observes that as per the additional capitalisation details submitted by the Petitioner only RMU of Khatima is going to be 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 FY 2017-18 or in FY 2018-19. With regard to Khatima, the Commission has considered allowable R&M Expenses for each year of the second Control Period equal to 2% of the opening GFA of that year. With regard to other Stations, wherein the RMU works shall be completed beyond FY 2016-17, the Commission on the provisional basis has considered R&M expenses based on the methodology provided in the Regulations. However, the Commission shall determine the same during the Annual Performance Review 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 second Control Period from FY 2016-17 to FY 2018-19 is as shown in the Table below:

Table 5.19: R&M expenses approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	4.48	4.91	9.50	8.12	15.18	8.12
Dhalipur	7.29	4.21	10.83	8.99	18.25	14.49
Chibro	9.55	9.53	10.96	9.97	11.83	9.97
Khodri	3.31	3.31	3.88	3.41	4.37	3.41
Kulhal	4.19	2.22	9.80	3.55	14.94	3.55
Ramganga	0.63	1.58	0.87	1.58	2.77	1.58
Chilla	12.28	11.38	13.04	11.59	18.20	15.45
MB-I	16.75	12.15	18.17	16.54	19.36	16.54
Khatima	13.96	0.98	29.99	1.98	35.43	2.22
Total	**72.44**	**50.27**	**107.04**	**65.73**	**140.34**	**75.33**

5.2.7.3 A&G expenses

The Petitioner submitted that the A&G expenses for the second Control Period from FY 2016-17 to FY 2018-19 has been proposed as per the UERC Tariff Regulations, 2015. Further, the Petitioner in its Petition has submitted that it is planning to implement ERP and has considered provisioning on account of ERP implementation. The Petitioner has submitted that yearly provisioning of Rs. 15 Crore has been considered for the entire company which has further been allocated to 9 LHPs, MB-II and SHPs in the ratio of 85:10:5. Accordingly, the Petitioner has proposed the A&G expenses of Rs. 38.31 Crore, Rs. 39.62 Crore and Rs. 40.99 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

The Commission has averaged the actual A&G expenses, after deducting the Petition filing fee for FY 2012-13 to FY 2014-15 to arrive at the gross A&G expenses for the median year FY 2013-14. Thereafter, the gross A&G expenses thus arrived for FY 2013-14 has been escalated by the WPI inflation of 7.42% to arrive at A&Gn-1 for FY 2015-16.

The Regulations provide for Provision in A&G expenses towards cost for initiatives or other one-time expenses. The Petitioner has proposed ERP implementation in the second Control Period. The Commission is of the view that such initiatives doesn't fall under A&G expenses and should be capitalised as such works are of capital nature which are to be incurred as onetime expenses. The Commission has, therefore, not considered the provisions made towards ERP implementation as A&G expenses. However, the same shall be considered as additional capitalisation once implemented and after carrying out due prudence check at the time of Annual Performance Review/true up.

The A&G expenses approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 is as shown in the Table below:

Table 5.20: A&G expenses approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	2.17	1.21	2.26	1.28	2.35	1.34
Dhalipur	2.17	1.44	2.25	1.51	2.33	1.59
Chibro	9.09	4.69	9.39	4.93	9.71	5.18
Khodri	4.63	2.35	4.78	2.47	4.94	2.60
Kulhal	1.26	0.85	1.30	0.89	1.34	0.94
Ramganga	6.94	3.14	7.16	3.30	7.39	3.47
Chilla	6.13	3.65	6.34	3.84	6.57	4.03
MB-I	4.01	2.64	4.15	2.78	4.30	2.92
Khatima	1.92	1.13	1.99	1.19	2.06	1.25
Total	**38.31**	**21.10**	**39.62**	**22.18**	**40.99**	**23.31**

In addition to the above, the Commission shall allow it to recover Petition filing fees on the basis of actual at the time of truing up.

5.2.7.4 O&M expenses

Based on above discussions, the O&M expenses approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 is as shown in the Table below:

Table 5.21: O&M expenses approved by the Commission for 9 old generating stations for the second Control Period from FY 2016-17 to FY 2018-19 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Dhakrani	19.14	17.48	25.36	21.75	32.43	22.90
Dhalipur	18.69	18.38	23.13	24.36	31.59	31.16
Chibro	58.41	54.43	63.66	58.66	68.99	62.76
Khodri	27.28	26.88	29.73	28.97	32.39	31.12
Kulhal	12.36	11.37	18.62	13.48	24.53	14.33
Ramganga	35.81	31.52	38.78	34.04	43.85	36.78
Chilla	48.85	47.94	52.53	51.23	61.09	58.44
MB-I	43.47	40.12	47.06	46.87	50.77	49.44
Khatima	29.17	16.14	46.45	18.43	53.34	20.07
Total	**293.18**	**264.27**	**345.32**	**297.79**	**398.98**	**327.00**

B. Maneri Bhali-II

The Petitioner has submitted that it has considered O&M expenses for FY 2014-15 as base year expenses and components of total O&M expenses for FY 2014-15 have been considered as per plant wise balance sheet prepared by the Petitioner. 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 second Control Period as shown below. The Commission has considered the actual Employee expenses excluding interest on GPF trust and generation incentive, R&M Expenses excluding expenses of capital nature and A&G expenses for FY 2012-13 to FY 2014-15 for projecting the component wise O&M expenses for the second Control Period. The Commission, accordingly, approves O&M expenses for MB-II as shown in the Table below:

Table 5.22: O&M expenses approved by the Commission for MB-II for the second Control Period from FY 2016-17 to FY 2018-19 (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Employee Expenses	21.71	23.83	23.64	25.92	25.90	28.20
R&M Expenses	31.81	26.76	33.59	26.76	35.60	26.76
A&G Expenses	5.40	4.95	5.60	5.20	5.81	5.47
Total	**58.92**	**55.53**	**62.83**	**57.88**	**67.31**	**60.43**

5.2.8 ***Interest on Working Capital***

A. Old Nine Generating Stations

The Petitioner has submitted that the interest on working capital for the second Control Period from FY 2016-17 to FY 2018-19 has been proposed in accordance with Regulation 33 of UERC Tariff Regulations, 2015.

Regulation 33 of UERC Tariff Regulations, 2015 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 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 14.05% 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 second Control Period in accordance with the aforesaid Regulations and is as discussed below.

5.2.8.1 One Month O&M Expenses

The annual O&M expenses approved by the Commission are Rs. 264.27 Crore, Rs. 297.79 Crore and Rs. 327.00 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. Based on the approved O&M expenses, one month's O&M expenses work out to Rs. 22.02 Crore, Rs. 24.82 Crore and Rs. 27.25 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

5.2.8.2 Maintenance Spares

The Commission has considered the maintenance spares as 15% of O&M expenses in accordance with UERC Tariff Regulations, 2015, which work out to Rs. 39.64 Crore, Rs. 44.67 Crore and Rs. 49.05 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

5.2.8.3 Receivables

The Commission has approved the receivables for two months based on the approved ARR of Rs. 306.16 Crore, Rs. 368.44 Crore and Rs. 413.74 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively, which works out to Rs. 51.03 Crore, Rs. 61.41 Crore, Rs. 68.96 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively.

Based on the above, the total working capital requirement of the Petitioner for FY 2016-17, FY 2017-18 and FY 2018-19 works out to Rs. 112.69 Crore, Rs. 130.89 Crore, and Rs. 145.26 Crore respectively. The Commission has considered the rate of interest on working capital as 14.05% equal to State Bank Advance Rate (SBAR) as on the date of filing of the MYT Petition and, accordingly, the interest on working capital works out to Rs. 15.83 Crore, Rs. 18.39 Crore, and Rs. 20.41 Crore for FY 2016-17, FY 2017-18 and FY 2018-19 respectively. The interest on working capital for FY 2016-17 to FY 2018-19 approved by the Commission for the second Control Period from FY 2016-17 to FY 2018-19 is as shown in the Tables below:

Table 5.23: Interest on Working Capital approved by the Commission for 9 LHPs for FY 2016-17 (Rs. Crore)

Generating Stations	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
Dhakrani	1.46	2.62	3.14	7.22	1.16	1.01
Dhalipur	1.53	2.76	3.34	7.63	1.21	1.07
Chibro	4.54	8.16	10.24	22.94	3.52	3.22
Khodri	2.24	4.03	5.36	11.64	1.70	1.63
Kulhal	0.95	1.71	2.12	4.77	0.91	0.67
Ramganga	2.63	4.73	5.43	12.78	2.07	1.80
Chilla	3.99	7.19	9.29	20.48	3.02	2.88
MB-I	3.34	6.02	8.15	17.51	2.78	2.46
Khatima	1.34	2.42	3.96	7.72	2.07	1.09
Total	**22.02**	**39.64**	**51.03**	**112.69**	**18.44**	**15.83**

Table 5.24: Interest on Working Capital approved by the Commission for 9 LHPs for FY 2017-18 (Rs. Crore)

Generating Stations	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
Dhakrani	1.81	3.26	4.17	9.25	1.63	1.30
Dhalipur	2.03	3.65	5.17	10.86	1.62	1.53
Chibro	4.89	8.80	11.10	24.79	3.87	3.48
Khodri	2.41	4.34	5.78	12.54	1.88	1.76
Kulhal	1.12	2.02	2.84	5.99	1.51	0.84
Ramganga	2.84	5.11	5.86	13.80	2.33	1.94
Chilla	4.27	7.68	9.90	21.86	3.31	3.07
MB-I	3.91	7.03	10.81	21.75	3.11	3.06
Khatima	1.54	2.76	5.76	10.06	3.21	1.41
Total	**24.82**	**44.67**	**61.41**	**130.89**	**22.47**	**18.39**

Table 5.25: Interest on Working Capital approved by the Commission for 9 LHPs for FY 2018-19 (Rs. Crore)

Generating Stations	1 month O&M Expenses	Maintenance Spares@15% of O&M	2 months Receivables	Total Working Capital	Interest on Working Capital	
					Claimed	Approved
Dhakrani	1.91	3.44	4.36	9.71	2.13	1.36
Dhalipur	2.60	4.67	7.27	14.54	2.26	2.04
Chibro	5.23	9.41	11.80	26.44	4.19	3.71
Khodri	2.59	4.67	6.14	13.40	2.06	1.88
Kulhal	1.19	2.15	2.97	6.32	1.99	0.89
Ramganga	3.06	5.52	6.34	14.92	2.90	2.10
Chilla	4.87	8.77	12.61	26.25	4.01	3.69
MB-I	4.12	7.42	11.13	22.67	3.32	3.18
Khatima	1.67	3.01	6.34	11.02	3.62	1.55
Total	**27.25**	**49.05**	**68.96**	**145.26**	**26.48**	**20.41**

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, 2015 and considering the prevailing State Bank Advance Rate (SBAR) of 14.05% as on the date on filing the MYT Petition. The summary of the interest on working capital for MB-II for first Control Period is shown in the Tables below:

Table 5.26: Interest on Working Capital approved by the Commission for MB-II for FY 2016-17 (Rs. Crore)

Generating Stations	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	4.63	8.33	41.62	54.58	8.93	7.67

Table 5.27: Interest on Working Capital approved by the Commission for MB-II for FY 2017-18 (Rs. Crore)

Generating Stations	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	4.82	8.68	40.77	54.27	9.04	7.63

Table 5.28: Interest on Working Capital approved by the Commission for MB-II for FY 2018-19 (Rs. Crore)

Generating Stations	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	5.04	9.06	39.95	54.05	9.19	7.59

5.2.9 *Non-Tariff Income*

A. Old Nine Generating Station

Regulation 46 of 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 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. 22.03 Crore for each year of the Control Period of FY 2016-17, FY 2017-18 and FY 2018-19 based on the average of non tariff income for FY 2013-14 to FY 2014-15. The Commission provisionally accepts the same for the second Control Period. The same shall, however, be trued up based on the actual audited accounts for the year.

Table 5.29: Non-Tariff Income for 9 LHPs for second Control Period (Rs. Crore)

Name of the Generating Station	FY 2016-17	FY 2017-18	FY 2018-19
Dhakrani	0.62	0.62	0.62
Dhalipur	0.91	0.91	0.91
Chibro	4.20	4.20	4.20
Khodri	2.01	2.01	2.01
Kulhal	0.5	0.5	0.5
Ramganga	3.96	3.96	3.96
Chilla	2.47	2.47	2.47
MB-I	5.96	5.96	5.96
Khatima	1.40	1.40	1.40
Total	**22.03**	**22.03**	**22.03**

B. Maneri Bhali-II

The Petitioner has proposed a non-tariff income of Rs. 2.73 Crore for each year of the Control Period of FY 2016-17, FY 2017-18 and FY 2018-19. The Commission provisionally accepts the same for the second Control Period. The same shall, however, be trued up based on the actual audited accounts for the year.

Table 5.30: Non-Tariff Income for MB-II for second Control Period (Rs. Crore)

Name of the Generating Station	FY 2016-17	FY 2017-18	FY 2018-19
MB-II	2.73	2.73	2.73

Further, as discussed in Truing Up section and the Commission's Order dated 21.10.2009, that the provision of the Regulations permitting adjustment of non-tariff income from AFC is not in consonance with the 1972 Agreement with HP as the components of cost of generation specified in Schedule-VIII of The Electricity (Supply) Act, 1948 considers only the cost components and does not provide for adjustment of any kind of revenue. Therefore, in order to have conformity with the provisions of the said agreement, the Commission has not considered any adjustment of proportion of non-tariff income for HPSEB and has considered the entire amount of the above said non tariff income for adjustment in UPCL's share of AFC.

5.2.10 *Annual Fixed Charges, Capacity Charge and Energy Charge Rate (ECR) for FY 2016-17, FY 2017-18 and FY 2018-19*

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 second 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, 2015 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:

$$PAFM = 10000 \text{ x } \sum_{i=1}^{N} \mathrm{DCi}/\{\mathrm{N \text{ x } IC \text{ x } (100 - Aux)}\}\%$$

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 second Control Period for 9 LHPs as approved by the Commission is shown in the Tables below:

Table 5.31: Approved AFC of 9 LHPs of UJVN Ltd. for FY 2016-17

Name of the 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	0.19	0.05	1.01	17.48	0.71	19.44	14.58	0.62	13.96	4.86
Dhalipur	0.29	0.06	1.07	18.38	1.16	20.96	15.72	0.91	14.81	5.24
Chibro	1.27	1.20	3.22	54.43	5.49	65.62	49.21	4.20	45.01	16.40
Khodri	1.32	0.10	1.63	26.88	4.26	34.20	25.65	2.01	23.64	8.55
Kulhal	0.17	0.06	0.67	11.37	0.94	13.21	10.57	0.50	10.07	2.64
Ramganga	0.31	0.16	1.80	31.52	2.76	36.54	36.54	3.96	32.58	-
Chilla	0.93	0.01	2.88	47.94	6.48	58.23	58.23	2.47	55.76	-
MB-I	4.23	0.84	2.46	40.12	7.19	54.84	54.84	5.96	48.88	-
Khatima	2.35	3.45	1.09	16.14	2.13	25.15	25.15	1.40	23.75	-
Total	**11.05**	**5.91**	**15.83**	**264.27**	**31.12**	**328.19**	**290.49**	**22.03**	**268.46**	**37.70**

Table 5.32: Approved AFC of 9 LHPs of UJVN Ltd. for FY 2017-18

Name of the 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	0.59	0.84	1.30	21.75	1.16	25.65	19.23	0.62	18.61	6.41
Dhalipur	1.45	2.14	1.53	24.36	2.48	31.94	23.96	0.91	23.05	7.99
Chibro	1.47	1.47	3.48	58.66	5.75	70.83	53.12	4.20	48.92	17.71
Khodri	1.41	0.16	1.76	28.97	4.39	36.68	27.51	2.01	25.50	9.17
Kulhal	0.66	1.04	0.84	13.48	1.50	17.53	14.03	0.50	13.53	3.51
Ramganga	0.28	0.12	1.94	34.04	2.76	39.13	39.13	3.96	35.17	-
Chilla	0.79	0.17	3.07	51.23	6.60	61.88	61.88	2.47	59.41	-
MB-I	6.40	4.70	3.06	46.87	9.82	70.84	70.84	5.96	64.88	-
Khatima	4.40	7.28	1.41	18.43	4.46	35.98	35.98	1.40	34.58	-
Total	**17.44**	**17.93**	**18.39**	**297.79**	**38.92**	**390.47**	**345.68**	**22.03**	**323.65**	**44.78**

Table 5.33: Approved AFC of 9 LHPs of UJVN Ltd. for FY 2018-19

Name of the 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	0.59	0.77	1.36	22.90	1.16	26.79	20.09	0.62	19.47	6.70
Dhalipur	3.01	4.33	2.04	31.16	3.99	44.53	33.40	0.91	32.49	11.13
Chibro	1.46	1.29	3.71	62.76	5.75	74.98	56.23	4.20	52.03	18.74
Khodri	1.40	0.04	1.88	31.12	4.39	38.83	29.12	2.01	27.11	9.71
Kulhal	0.66	0.96	0.89	14.33	1.50	18.34	14.67	0.50	14.17	3.67
Ramganga	0.27	0.09	2.10	36.78	2.76	41.99	41.99	3.96	38.03	-
Chilla	3.24	3.96	3.69	58.44	8.81	78.14	78.14	2.47	75.67	-
MB-I	6.40	3.92	3.18	49.44	9.82	72.75	72.75	5.96	66.79	-
Khatima	5.05	7.73	1.55	20.07	5.02	39.42	39.42	1.40	38.02	-
Total	**22.08**	**23.09**	**20.41**	**327.00**	**43.20**	**435.77**	**385.82**	**22.03**	**363.79**	**49.95**

The summary of Capacity Charge and Energy Charge Rate (ECR) for 9 LHPs for second Control Period is as given in the Tables below:

Table 5.34: Approved Capacity Charge and Energy Charge Rate for 9 LHPs for FY 2016-17

Name of the 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	13.96	6.98	116.84	0.597	4.86	2.43	38.95	0.624
Dhalipur	14.81	7.41	143.00	0.518	5.24	2.62	47.67	0.550
Chibro	45.01	22.51	555.75	0.405	16.40	8.20	185.25	0.443
Khodri	23.64	11.82	256.16	0.461	8.55	4.27	85.39	0.501
Kulhal	10.07	5.03	122.26	0.412	2.64	1.32	30.57	0.432
Ramganga	32.58	16.29	308.82	0.527		-		-
Chilla	55.76	27.88	664.57	0.420		-		-
MB-I	48.88	24.44	392.23	0.623		-		-
Khatima	23.75	11.88	192.69	0.616		-		-
Total	268.46	134.23	2,752.32	0.488	37.70	18.85	387.812	0.486

Table 5.35: Approved Capacity Charge and Energy Charge Rate for 9 LHPs for FY 2017-18

Name of the 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	18.61	9.31	116.84	0.797	6.41	3.21	38.95	0.823
Dhalipur	23.05	11.52	143.00	0.806	7.99	3.99	47.67	0.838
Chibro	48.92	24.46	555.75	0.440	17.71	8.85	185.25	0.478
Khodri	25.50	12.75	256.16	0.498	9.17	4.59	85.39	0.537
Kulhal	13.53	6.76	122.26	0.553	3.51	1.75	30.57	0.574
Ramganga	35.17	17.59	308.82	0.569		-		-
Chilla	59.41	29.70	664.57	0.447		-		-
MB-I	64.88	32.44	392.23	0.827		-		-
Khatima	34.58	17.29	192.69	0.897		-		-
Total	323.65	161.83	2,752.32	0.588	44.78	22.39	387.812	0.577

Table 5.36: Approved Capacity Charge and Energy Charge Rate for 9 LHPs for FY 2018-19

Name of the 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	19.47	9.74	116.84	0.833	6.70	3.35	38.95	0.860
Dhalipur	32.49	16.24	143.00	1.136	11.13	5.57	47.67	1.168
Chibro	52.03	26.02	555.75	0.468	18.74	9.37	185.25	0.506
Khodri	27.11	13.56	256.16	0.529	9.71	4.85	85.39	0.568
Kulhal	14.17	7.09	122.26	0.580	3.67	1.83	30.57	0.600
Ramganga	38.03	19.01	308.82	0.616		-		-
Chilla	75.67	37.83	664.57	0.569		-		-
MB-I	66.79	33.40	392.23	0.851		-		-
Khatima	38.02	19.01	192.69	0.987		-		-
Total	363.79	181.90	2,752.32	0.661	49.95	24.98	387.81	0.644

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 second 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 second Control Period is given in the Table below:

Table 5.37: Approved AFC, Capacity Charge and Energy Charge Rate for MB-II for Second 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 2016-17	58.81	86.80	7.67	55.53	43.63	252.44	2.73	249.71	124.85	1,550.44	0.80
FY 2017-18	79.39	79.39	7.63	57.88	43.63	247.33	2.73	244.60	122.30	1,550.44	0.79
FY 2018-19	71.97	71.97	7.59	60.43	43.63	242.44	2.73	239.71	119.85	1,550.44	0.77

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 on the performance improvement measures. In this regard, the Commission in its MYT Order dated 05.06.2013 with reference to conducting a benchmarking study of its plants with other utilities like NHPC, directed the Petitioner to explore further scope of improvement in technical losses and manpower rationalisation including incentive mechanism and stated as follows:

"In light of above the Commission directs UJVN Ltd. to complete the benchmarking study for all its stations considering few more stations and submit the report to the Commission within 3 months from the date of issue of this Order."

Further the Commission in the meeting held on 04.09.2013 directed UJVN Ltd. as follows:

"The Commission also directs UJVN Ltd. to conduct study to ascertain annual maintenance days and also furnish information by 30.11.2013 on manpower, segregating this on the basis of technical/managerial/maintenance deployed in each plant."

In this regard, the Petitioner in its APR Petition for FY 2014-15 had submitted that it would submit the report after completion of the work, i.e. after April 2014. Accordingly, the Commission in its APR Order dated 10.04.2014 had directed the Petitioner as under:

"The Commission in view of the above, directs the Petitioner to submit the said report by May 31, 2014."

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 vide its letter no. 58/UJVNL/03/D(P)/D-5 dated 05.02.2015. Accordingly, the Commission in its APR Order dated 11.04.2015 had directed the Petitioner as under:

"In this regard, the Commission hereby directs the Petitioner to implement the recommendations contained in the Report specifically with regard to manpower deployment & rationalization and reduction in planned maintenance days."

In compliance to the above direction, the Petitioner has submitted that it has implemented the recommendations contained in the Report specifically with regard to manpower deployment & rationalization and reduction in planned maintenance days. **In this regard, the Commission directs the Petitioner to submit details of the measures taken by it towards manpower deployment, rationalisation and data to support reduction in planned maintenance days within 3 months from date of this Order.**

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 has 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 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.**

6.2 Compliance to directives issued in Order dated 10.05.2011

6.2.1 ***Utilisation of Expenses approved by the Commission***

The Commission in its Order dated 10.05.2011 directed the Petitioner as follows:

"The Commission directs UJVNL to prepare an annual budget for FY 2011-12 for each and every plant and submit the same to the Commission within one month of the issuance of this Order."

In compliance to the above direction, the Petitioner in its APR Petition for FY 2014-15 had submitted the copy of Annual Budget for FY 2013-14 and revised budget for FY 2012-13 through letter no. 4097/MD/ UJVNL/ UERC dated 03.07.2013. In this regard, the Commission in its APR

Order dated 10.04.2014 directed the Petitioner as follows:

"The Commission directs UJVN Ltd. to submit annual budget for future financial years by 30th of April of the respective financial year."

In compliance to the above direction, the Petitioner has been submitting Annual Budget within the stipulated timeframe. **Accordingly, the Commission again directs UJVN Ltd. to submit annual budget for future financial years by 30th of April of the respective financial year.**

6.2.2 *Colony Consumption*

The Commission in its order dated 10.05.2011 stated as follows:

"The Commission observed that the data submitted for colony consumption was erroneous and therefore, the prudence check cannot be done on the basis of this data.

Further, it was also evident that the auxiliary consumption and transformation losses incurred on the stations were excessively high when compared to the norms specified in the Regulations. For instance in Dhakrani the auxiliary consumption is 1.49% and transformation losses is 12.17% against the norm of 0.2% and 0.5% respectively. This indicates that either the data collected is incorrect or there is some problem in the equipments installed in the stations which require immediate attention.

Therefore, the Commission directs the Petitioner to reconcile the data and submit a report on the same to the Commission within 3 months of the issuance of this Order along with the corrective steps to be taken in this regard."

The Petitioner in this regard in the tariff filing for FY 2012-13 submitted that the data has been reconciled and such reconciled data has already been submitted to the Commission.

The Commission in its Tariff Order for FY 2012-13 observed that not only the employees of UJVN Ltd. are being supplied electricity without meters but other consumers also, such as street lights, tube wells, non-residential buildings are receiving un-metered supply.

The Commission, accordingly, in its Tariff Order dated 04.04.2012 stated that there is no merit in including consumption of other employees/consumers except the departmental employees of UJVN Ltd. in colony consumption. Accordingly, the Commission directed as follows:

"The Commission directs the Petitioner to segregate the consumption of employees of other departments, offices, etc. and also install the meters in all the un-metered connections including

connections given to its employees. Further, the Petitioner is also directed not to include the consumption of consumers other than its departmental employees, while claiming cost of colony consumption in future. Further, the Petitioner should submit the compliance report for the same within three months from the date of issue of this order."

The Petitioner in the MYT Petition submitted that the segregation of consumption of employees of other departments, offices etc. and meter installation is still in process. The Commission in its MYT Order, accordingly, directed the Petitioner as follows:

"The Commission hereby directs UJVN Ltd. to install the meters for all un-metered connections and submit quarterly status report for steps taken and activities completed in this regards."

In compliance to the above, the Petitioner in its APR Petition for FY 2014-15 submitted the station wise/division wise current status and action plan for metering of colonies. The Petitioner further submitted that complete metering in all the colonies of power stations of UJVN Ltd. was expected to be completed by March 31, 2014. Accordingly, the Commission in its APR Order dated 10.04.2014 directed the Petitioner as follows:

The Commission directs the Petitioner to submit the report on metering of its colonies to the Commission by May 31, 2014.

In compliance to the above, the Petitioner vide letter no. 295 dated 31.05.2014 had submitted the status report on metering of its colonies to the Commission stating that in Lohiahead, MB-I, Dhakrani, Dhalipur, Kulhal all the connections have been metered whereas, in Chilla, Kalagarh, Pathri, Mohammadpur & Dakpathar meter are yet to be installed. The Petitioner in the said submission had stated that the remaining un-metered connections would be metered by 31.07.2014, however, the Petitioner had not submitted the status in this regard. The Commission accordingly in its APR Order dated 11.04.2015directed the Petitioner as follows:

"The Commission hereby directs the Petitioner to install the meters for all un-metered connections in its colonies by June 30, 2015 and submit compliance report by July 31, 2015."

In compliance to this the Petitioner vide letter dated 29.07.2015 has submitted that Energy Meters have been installed for all the connections in the respective colonies and thus, 100% metering has been ensured as per direction of the Commission. 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.

6.2.3 *Income from electricity distribution to Sundry Consumers*

The Commission in its Tariff Order dated 10.05.2011 observed that the Petitioner is maintaining distribution system in three of its Plant colonies and supplying power to sundry consumers in these colonies. Since, sale of power to other consumers by a generating company is not permissible under the Act, the Commission directed the Petitioner as follows:

"The Commission directs the Petitioner as well as UPCL to resolve this issue amongst them and report compliance to the Commission within 6 months of the date of this Order. The Commission further directs the Petitioner to transfer the net revenue realized upto 2010-11 after deducting its costs to UPCL as revenue earned from sale of power to sundry consumers is legally not allowed to it in absence of proper licence for the same.

Further, the Commission directs the Petitioner that the electricity supplied by UJVNL to its employees staying in the colonies should also be metered and recorded separately and the same cannot be considered as auxiliary consumption. The Commission further directs the UJVNL to submit the consumption data of all the employees residing in colonies and outside based on meter readings along with the next Tariff Petition."

The Petitioner in its Tariff Petition for FY 2012-13 submitted that it has approached UPCL to take over the distribution of other consumers and further enclosed the copy of correspondence exchanged in this regard. The Petitioner further submitted that the matter shall be pursued with UPCL. Further, with respect to the consumption data, the Petitioner submitted that the consumption data of the employees residing in the colonies shall be submitted separately. However, with regard to consumption data pertaining to employees residing outside, the Petitioner submitted that the meters are installed by UPCL and, hence, if deemed appropriate, suitable directives may be given to UPCL in this regard. The Commission, accordingly, in its Tariff Order dated 04.04.2012 directed the Petitioner as:

"The Petitioner is hereby directed to follow up this matter closely to handover the distribution of other consumer to UPCL and submit quarterly progress report to the Commission."

The Commission in its MYT Order directed the Petitioner as follows:

"The Commission in this regard hereby directs the Petitioner, to hand over all of its distribution business to UPCL within 6 months of this Order. The Commission also directs UPCL to take charge of the distribution business carried out by UJVN Ltd., within 6 months of this Order. The Petitioner is further, directed to submit a detailed action plan for the same within 30 days of this Order. The Petitioner is also required to submit the bi-monthly reports for complying with the above directions of the Commission. It is further clarified that the non-compliance of the above direction of the Commission within the specified timelines would attract action under Section 142 of the Electricity Act, 2003."

In compliance to the above directions, the Petitioner in its APR for FY 2014-15 informed that it had submitted the action plan to the Commission vide letter no. 3509/MD/UJVNL/ UERC dated 05.06.2013. However, the Commission had observed that though the Petitioner had submitted the action plan, it had not submitted the bi-monthly report after September, 2013 neither, it has submitted the present status in the matter. In response to this, the Petitioner had submitted that for transfer of distribution business to UPCL, UJVN Ltd. vide letter no. 1977/UJVNL/D(O)/B-6 dated 05.09.2013 had nominated its various site officers and correspondences for transfer of the distribution business was done with UPCL nodal officers. However, no appreciable progress was achieved on the issue in spite of repeated correspondence with UPCL.

Further, on request of the Petitioner, the Commission had agreed that distribution lines mainly connected with the Dam/Barrage/Power House be excluded from the purview of this direction to ensure safety of these structures. In this regard, the Commission in its APR Order dated 10.04.2014 further again directed the Petitioner as follows:

"The Commission, in this regard, hereby directs the Petitioner to hand over all of its distribution business to UPCL within 6 months of this Order. The Commission also directs UPCL to take charge of the distribution business carried out by UJVN Ltd., within 6 months of this Order. The Petitioner is further, directed to submit bi-monthly status of the implementation of the aforesaid action plan. It is, further, clarified that in case the Petitioner fails to comply with the above direction of the Commission within the specified timelines, it would attract action under Section 142 of the Electricity Act, 2003."

In compliance to the above direction, the Petitioner submitted that it had submitted the compliance report vide letter no. 9308 dated 07.11 2014 stating that UJVN Ltd. is continuously pursuing with UPCL to take over the balance distribution business/lines of UJVN Ltd., but no significant progress has been achieved.

Earlier, the matter was taken up during the 6th Co-ordination Forum Meeting held on 06.01.2015, in which the Commission directed both the Managing Directors to resolve the matter on top priority and asked Secretary, Energy, GoU to monitor the progress of the same. The Commission accordingly in its APR Order dated 11.04.2015 directed the Petitioner as follows:

"In this regard, the Commission further directs the Petitioner to submit a quarterly status of the progress till the entire handing over of distribution business is completed."

In compliance to the above direction, the Petitioner submitted the quarterly progress report for the first and second quarter dated 10.08.2015 and 05.10.2015. However, taking cognizance of the slow progress and lackadaisical approach of the Utilities i.e. the Petitioner and UPCL, The Commission had reviewed the issue during a joint meeting held with UPCL and UJVN Ltd. on 28.10.2015, wherein the Commission had directed that:

> *"... UJVN Ltd. and UPCL to nominate atleast 02 Officers not below the rank of DGM/SE from their Organization & submit their joint report for ensuring the compliance of the Commission's directions latest by 30.11.2015"*

Accordingly, both the utilities nominated its Officers for ensuring the compliance, however, despite the above steps of the utilities it has been observed that entire handing over/taking over of distribution business has not been taken place and the reasons stated by UPCL in its submission that UJVN Ltd. is not providing the documents pertaining to the consumers to be taken over viz. Application form, Security deposit, verification details etc. while, the Petitioner in its submission has stated that UPCL has never informed for providing such documents. In this regard, the Commission is of the view that sufficient time has already been provided to both the utilities, therefore, **directs the Petitioner and UPCL to comply with the directions of the Commission in all respect by 30.05.2016 and submit compliance report in the matter by 15.06.2016, failing which appropriate action shall be initiated against both the utilities in accordance with the provisions of the Act/Regulations.**

6.3 Compliance to the Directives Issued in MYT Order dated 06.05.2013

6.3.1 *Design Energy*

With regard to Maneri Bhali-II (MB-II) HEP, the Petitioner in the MYT Petition submitted that due to barrage level restriction and improper evacuation of water through TRC, the capacity of the plant is restricted to 280 MW. UJVN Ltd. further submitted that due to technical reasons and availability of reduced quantity of water, which is beyond the control of the Petitioner, the net generation is less than the expected generation.

The Commission in its MYT Order stated that such reasons cannot be a ground for lowering of the design energy. The Commission in its MYT Order, accordingly, directed as follows:

"The Commission directs UJVN Ltd. to overcome this constraint at the earliest. UJVNL is directed to submit the quarterly progress report on the progress made by it to address this issue."

With respect to the 9 LHPs, the Petitioner in its MYT Order submitted that the DPRs for existing 9 LHPs was not available with it and therefore, expressed its inability to submit the same. The Commission, accordingly, directed the Petitioner 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 DPRs of the 9 LHPs was not available with UJVN Ltd. In this reference, UJVN Ltd. had requested the Head of Department, Irrigation Department-Uttarakhand vide letter no. 1240/UJVNL/D(O)/Q-5 dated 10.06.2013 and 1906/UJVNL/D(O)/Q-5 dated 26.08.2013 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 one copy of original DPRs of the Power Stations of UJVN Ltd. but no response was received in this regard. The Commission in its APR Order dated 10.04.2014, 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."

In compliance to the above directive of the Commission, the Petitioner vide letter no. 455

dated 27.08.2014 has submitted the Quarterly Progress Report. The Petitioner had submitted that the efforts for searching of the DPRs are still in progress. The Commission accordingly in its APR Order dated 11.04.2015 directed the Petitioner as follows:

"The Commission in this regard again 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."

The Petitioner has not submitted any status report for the same. **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.**

The Commission with regard to revisiting design energy for 9 LHPs is of the view that RMU works for some of these stations have been approved by the Commission, while for other stations Petition for RMU have been filed by UJVN Ltd. and once these works are completed the design energy for 9 LHPs shall be revised accordingly.

6.4 Directives specifically issued in Meeting dated 04.09.2013

The Commission has given various directives in the meeting dated 04.09.2013 as reproduced below:

"The Commission directed the Petitioner to check whether RMU activity is economically viable or not. Further, the Commission directed UJVN Ltd. to calculate plant wise per MW cost of RMU works already completed, currently underway and to carry out benchmarking study with other utilities in the Country for the same.

The Commission also directed UJVN Ltd. to submit DPR of RMU for Khatima for Commission's review.

The Commission directed UJVN Ltd. to prepare and submit a quarterly progress report for RMU to the Commission. The Commission also directed UJVN Ltd. to incorporate measures in order to reduce the plant maintenance."

In response, the Petitioner in its APR Petition for FY 2014-15 submitted that the plant wise per MW cost of RMU works of the Power Stations of UJVN Ltd. as follows.

"Mohammadpur (9.3MW) (completed) : 8.230 Crore

Pathri (20.4 MW) (underway) : 5.552 Crore

Khatima (41.4 MW (underway) : 6.202 Crore"

The Petitioner had also submitted the RMU report for Khatima LHP. However, the details of RMU in other utilities was not submitted as adequate data was not available by then. Further, on the basis of some data received from OHPC, the Petitioner submitted the per MW cost of RMU as follows:

"Balimala (360 MW) : 1.85 Crore

Chiplima (24 MW) : 4.02 Crore

Burla (75 MW) : 4.31 Crore"

In regard to the above submissions, the Petitioner further submitted that

"…no final conclusion can be drawn from above as the scope of work of RMU governs the cost. In case of complete replacement of E&M equipment the cost shall be more than cost of refurbishment. Inclusion of civil works may further affect the final cost of RMU. The Petitioner submitted that it has been noted that cost of RMU per MW decreases with increase in installed capacity of the power house."

The Petitioner in its APR Petition for FY 2014-15 further submitted the second quarterly progress report for quarter ending 31.12.2013.

In this regard, the Commission in its APR Order dated 10.04.2014 directed the Petitioner as follows:

"The Commission directs the Petitioner to carry out the above study and submit the report to the Commission within six months from the date of this Order."

The Petitioner in its APR Petition for FY 2015-16 submitted that UJVN Ltd. is making all efforts to get the relevant information from other similar organizations. The desired information as per availability with other organizations shall be submitted tentatively within a period of six months, i.e. by June 2015. The Commission, accordingly, in its APR Order dated 11.04.2015 directed the Petitioner as follows:

"The Commission further directs the Petitioner to submit the report on comparison of its RMU costs with RMU Costs of other Hydel generating stations by June 30, 2015."

In compliance to the above, the Petitioner vide letter dated 03.07.2015 submitted that it had requested other Utilities in the Country namely NEEPCO, OHPCL, NHPC,BBMB,HPSEB, UPJVNL, KSEB, J&K State Power Development Corporation, APGENCO, TSGENCO, DVC, KPCL for providing information regarding RMU activities including cost. However, only NEEPCO and APGENCO responded in the matter. Further, APGENCO informed that they had not carried out extensive RMU works so far, while, NEEPCO informed that it has taken up the R&M of two Dam based high head projects namely Kopli Power Station (4x50 MW) and Khandong Power Station (2x25 MW).

Besides above, the Petitioner referred a discussion held with the expert group of CBIP stating that it was deliberated in the meeting that the cost of RMU works would depend on the extent of works alongwith other factors and as such benchmarking of the cost of RMU projects cannot be done. The Petitioner further submitted that UJVN Ltd. has been making all its efforts in preparing a report in the matter on the basis of information received from various Utilities.

In this regard, the Commission agrees that the cost of RMU works would depend on the extent of works involved in the scope, however, as seen from Petitioner's earlier RMU proposals, it has been observed that the cost of most of the Projects seems to be inflated therefore, the Commission is of the view that the Petitioner should continue its endeavour **and directs the Petitioner to submit a report on comparison of its RMU costs with RMU Costs of other Hydel generating stations by 30.06.2016.**

6.4.1 *Status of upcoming projects*

The Commission had directed the Petitioner to submit quarterly progress report on the upcoming projects. The Petitioner in its response submitted the current status of all the 13 upcoming projects. In this regard, the Commission in its APR Order dated 10.04.2014 directed the Petitioner as follows:

"The Commission directs the Petitioner to submit quarterly progress report of status of all its upcoming projects."

In compliance to the above directive, the Petitioner had submitted that UJVN Ltd. vide letter no. 455 dated 27.08.2014 has submitted Quarterly Progress Report of status of all its upcoming projects. The Commission in its APR Order dated 11.04.2014 directed the Petitioner as follows:

"The Commission directs the Petitioner to submit the quarterly progress report on status of all upcoming projects at regular intervals."

In compliance to above, the Petitioner has submitted the quarterly progress report for the 1st quarter and 2nd quarter vide letter dated 04.08.2015 and 23.11.2015. **The Commission re-directs the Petitioner to submit the quarterly progress report on status of all upcoming projects at regular intervals.**

6.5 Compliance to the Directives Issued in Tariff Order dated 11.04.2015

6.5.1 *Details of Additional Capitalization for MB-II*

The Commission in its APR Order dated 11.04.2015 has stated that any additional capitalisation in MB-II project has to be examined in light of the provisions of the Regulation 16 of UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004. Accordingly, the works upto cut off date has to be within the original scope of work and works beyond the cut off date have to meet the requirements laid down in the Regulations. The Commission accordingly directed the Petitioner as follows:

"The Commission, therefore, directs UJVN Ltd. to submit the year wise details of actual additional capitalisation carried out by it till FY 2014-15 for MB-II LHP alongwith the justification of the same within 3 months of the date of Order."

In accordance with the above, the Petitioner has submitted the said details. The Commission has gone through the submissions of the Petitioner and the same have been discussed in Chapter 4 of this Order.

6.5.2 *View of State Advisory Committee*

The Commission in APR Order dated 11.04.2015 had stated that it agrees with the views of State Advisory Committee members that UJVN Ltd. has been continuously raising same issues in its ARR and Tariff Petitions on which the Commission has already made its decision and given its ruling in the previous Tariff Orders. The Commission had accordingly directed the Petitioner that:

"...not to raise such issues again in the subsequent ARR and Tariff Petitions on which the

Commission has already taken the decision and given its ruling in the previous Tariff Orders, failing which, the Commission may reject the Petition upfront."

It is observed that the Petitioner has again claimed return on PDF amount despite the above directions. Since the Commission has already given its ruling in its previous Tariff Orders and, accordingly, the Commission has not considered the same. **Hence the Commission again directs the Petitioner not to raise such issues again in the subsequent ARR and Tariff Petitions on which the Commission has already taken the decision and given its ruling in the previous Tariff Orders.**

6.6 New Directives Issued

6.6.1 *Achieving FRL of 1108 m for MB-II and other related works*

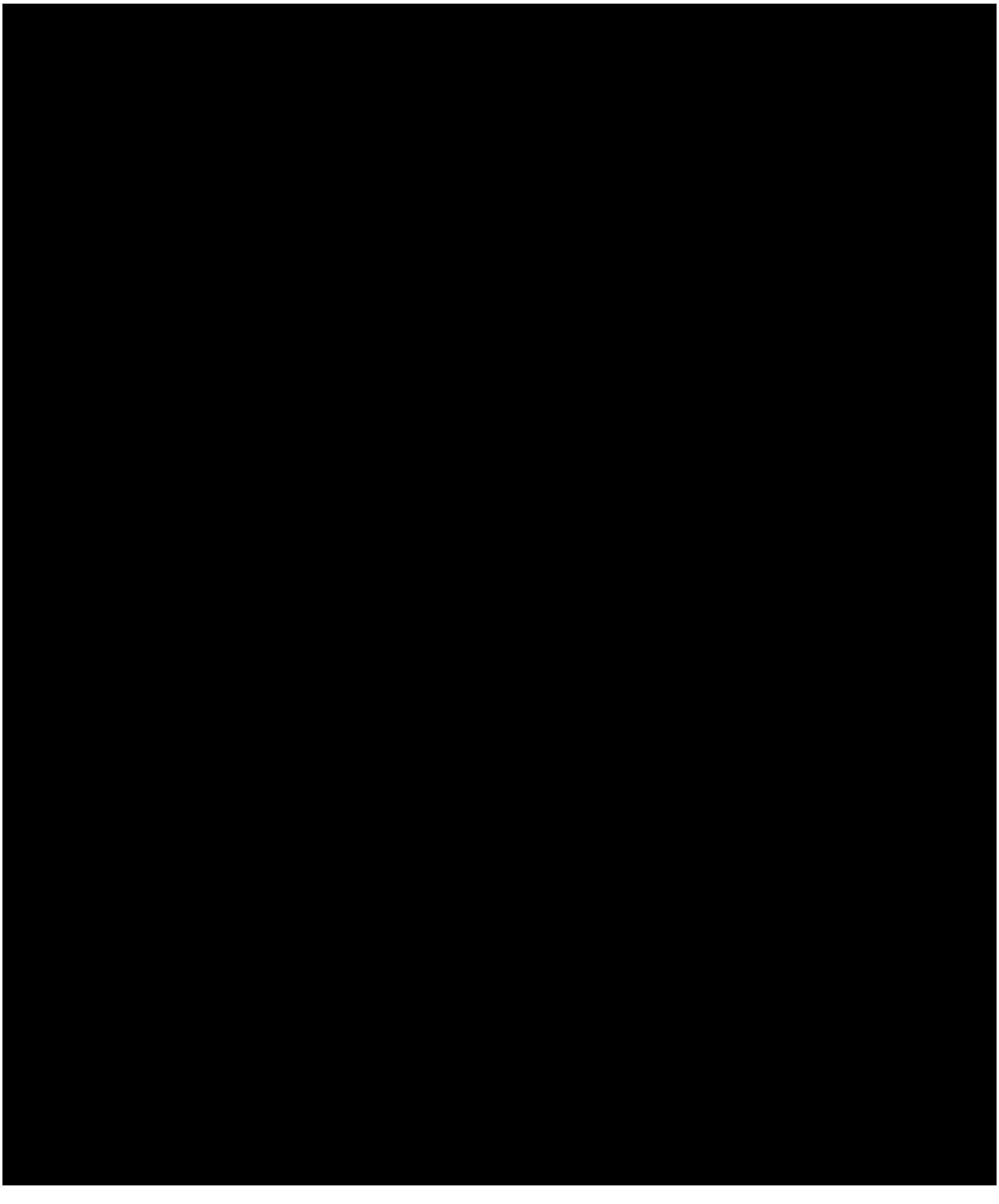
As discussed Chapter 3 of this Order, the Commission is of the view that the works of increasing the reservoir level of Joshiyara Barrage from 1104 m to 1108 m should be taken on top priority alongwith other related works which are essentially to be carried out for attaining the design energy generation of the MB-II Plant and, therefore, **the Commission directs the Petitioner 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 energy generation of MB-II HEP by the end of FY 2016-17.** However, in case the Petitioner fails to carry out such works during FY 2016-17 as per above direction of the Commission, the NAPAF for the station shall be considered as 74% while carrying out the truing- up for FY 2016-17.

The AFC for the second control period shall be deemed to be recoverable in accordance with the mechanism specified in UERC Tariff Regulations, 2015. The tariffs approved in this Order shall be applicable from 01.04.2016 and shall continue to apply till further Orders of the Commission.

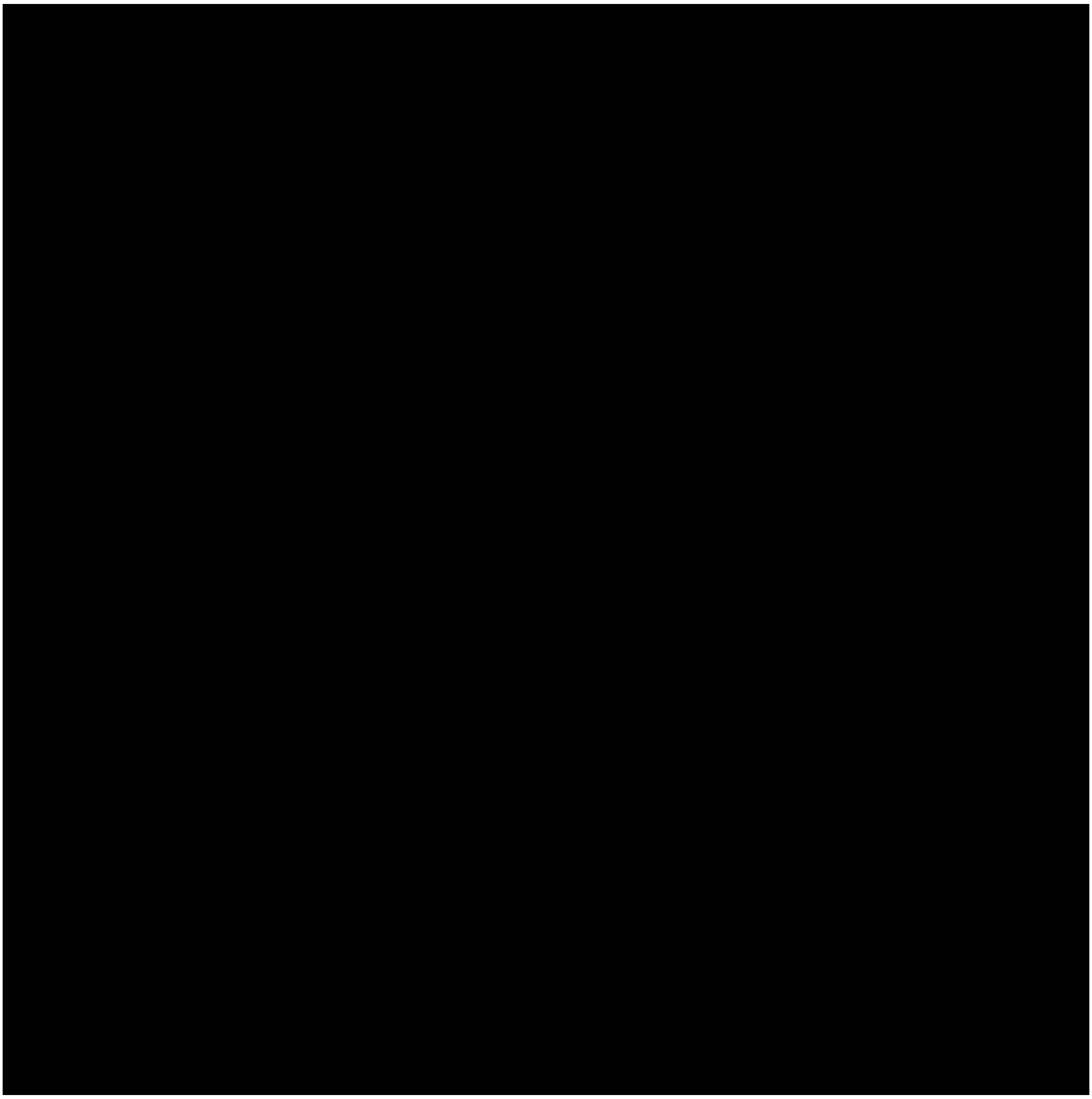
(K.P. Singh) **Member**	**(Subhash Kumar)** **Chairman**

7 Annexure

7.1 Annexure 1: Public Notice on MYT Petition for FY 2016-17 to FY 2018-19



7.2 Annexure 2: Public Notice on Business Plan for FY 2016-17 to FY 2018-19



7.3 Annexure 3: List of Respondents

List of Respondents

Sl.	Name	Designation	Organization	Address
1.	Sh. Pankaj Gupta	President	M/s Industries Association of Uttarakhand	Mohabewala Industrial Area, Dehradun-248110
2.	Sh. Pawan Agarwal	Vice-President	M/s 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, Uttarakhand
4.	Sh. Kuldeep Singh	-	Bhartiya Kisan Union	Village-Dhakiya Kalan, P.O.-Dhakiya No.-1, Tehsil Kashipur, Distt. Udham Singh Nagar

7.4 Annexure 4: List of Participants of Public Hearing

List of Participants in Hearing at Pithoragarh on 16.02.2016

Sl.	Name	Designation	Organization	Address
1.	Sh. Chandra Bhanu Gupta	-	M/s Gupta Trading Company	Siltham Road, Distt. Pithoragarh
2.	Sh. Manoj Chauhan	-	M/s Chauhan Medical Store	Gandhi Chowk, Distt. Pithoragarh
3.	Sh. Harish Kapri	-	Jila Panchayat Office	Gandhi Chowk, Distt. Pithoragarh
4.	Sh. Manoj Bisht	-	-	Near Mostamanu, Chandak, Tehsil & Distt. Pithoragarh
5.	Sh. Pawan Kumar Joshi	District President	Udhyog Vyapaar Mandal	Simalgair Bazaar, Distt. Pithoragarh
6.	Sh. Pawan Joshi	-	M/s Satkar Sweets	Simalgair Bazaar, Distt. Pithoragarh
7.	Sh. Pankaj Kadayat	-	M/s Pankaj Enterprises	Siltham, Distt. Pithoragarh
8.	Sh. Mahendra Valdiya, S/o Sh. Ram Singh Valdiya	-	-	Near Shiv Temple, Chandrabhaga (Valdiya Bhawan) P.O. Echoli, Distt. Pithoragarh
9.	Sh. Tula Singh	-	-	Village-Talli Saar, P.O.-Khati Gaon, Distt. Pithoragarh
10.	Sh. Mahesh Ch. Matholiya	-	-	Simlagair Bazaar, Distt. Pithoragarh
11.	Sh. Laxman Singh Vaseda	-	-	Vaseda Colony, Near Nagar Palika, Distt. Pithoragarh
12.	Sh. Naveen Chandra Joshi	-	-	G.I.G. Road, Vrindawan Complex, Distt. Pithoragarh
13.	Sh. Raju Mall	-	M/s Uttaranchal Gifts	Parwati Bazaar, Siltham, Distt. Pithoragarh

List of Participants in Hearing at Sitarganj on 18.02.2016

Sl.	Name	Designation	Organization	Address
1.	Sh. R.S. Yadav	-	M/s India Glycols Ltd.	A-1, Industrial Area, Bazpur Road, Kashipur, Distt. Udham Singh Nagar-244713
2.	Sh. R.K. Mishra	-	M/s India Glycols Ltd.	A-1, Industrial Area, Bazpur Road, Kashipur, Distt. Udham Singh Nagar-244713
3.	Sh. P.K. Gupta	-	M/s Innovative Textiles Ltd.	B-8, Phase-1, ESIP, Sitarganj, Distt. Udham Singh Nagar
4.	Sh. V. K. Aggarwal	-	M/s Balaji Action Buildwell	Plot No: C-34 & C-34(a) to (d), ESIP, Sitarganj Distt. Udham Singh Nagar
5.	Sh. Rajiv Gupta	-	M/s Kashi Vishwanath Steels Pvt. Ltd.	Narain Nagar Industrial Estate, Bazpur Road, Kashipur-244713, Distt. Udham Singh Nagar
6.	Sh. P.C. Aggarwal	-	M/s Kashi Enterprises	B-25-29, Industrial Estate, Nainital Road, Kashipur–244713, Distt. Udham Singh Nagar
7.	Sh. R.K. Gupta	Secretary General (KGCCI)	M/s Gujarat Ambuja Exports Ltd.	C-50, ELDECO SIDCUL, Industrial Park, Sitarganj-262405, Distt. Udham Singh Nagar
8.	Sh. R.K. Saxena	-	M/s Parle Biscuits Pvt. Ltd.	Plot No. D-10, ESIP, Sitarganj, Distt. Udham Singh Nagar
9.	Sh. Durgesh Mohan	-	M/s Sitarganj Sidcul Industries Welfare Association	B-108, ESIP, Sitarganj, Distt. Udham Singh Nagar
10.	Sh. S.K. Garg	-	M/s BST Textile Mills Pvt. Ltd.	Plot. No. 9, Sector-9, SIDCUL, Pantnagar, Distt. Udham Singh Nagar
11.	Sh. J.N. Singh	-	M/s Ganesha Ecosphere Ltd.	Plot No. 6, Sector-2, IIE, SIDCUL, Pantnagar, Distt. Udham Singh Nagar
12.	Sh. Jeet Singh Cheema	-	Bhartiya Kisan Union	Dhakiya No.-2, P.O.-Dhakiya No. 1 Kashipur, Distt. Udham Singh Nagar
13.	Sh. Kuldeep Singh Cheema	Advisor Member	State Council-Uttarakhand	Dhakiya Kalan, P.O.-Dhakiya No.-1, Tehsil Kashipur, Distt. Udham Singh Nagar
14.	Sh. Balkar Singh Fauji	-	-	Village-Raipur Khurd, P.O. Kashipur, Distt. Udham Singh Nagar

List of Participants in Hearing at Pauri on 23.02.2016

Sl.	Name	Designation	Organization	Address
1.	Sh. Kamal Singh	-	-	Village-Sarna, P.O.-Chopdiyun, Block - Pabau, Patti-Ghurdaursyun, Distt. Pauri Garhwal
2.	Sh. Mohan Singh Rawat	-	-	Saraswati Sadan, Near Police Line, Distt. Pauri Garhwal
3.	Smt. Vinita Rawat	-	-	M.I.C. Road, Distt. Pauri Garhwal
4.	Sh. Mukesh Joshi	-	-	Village- Joshiyada, P.O.-Parsundakhal, Patti-Paidalsyun, Distt. Pauri Garhwal
5.	Sh. Jagdish Singh	-	-	Village-Rithai, P.O.-Kandara, Patti-Paidalsyun, Distt. Pauri Garhwal

List of Participants in Hearing at Pauri on 23.02.2016

Sl.	Name	Designation	Organization	Address
6.	Sh. Ghanshyam Singh Rana	-	-	Village-Thali, P.O.-Chandola Rai, Patti-Nandalsyun, District Pauri Garhwal
7.	Sh. Ravindra Bhandari	-	-	Village & Post Nisni, Patti-Paidalsyun, Distt. Pauri Garhwal
8.	Sh. Prem Singh Negi	-	-	Village-Daang, P.O.-Toli, Patti-Kapolsyun, Distt. Pauri Garhwal
9.	Sh. Vinod Bisht	Sabhasad	Nagar Palika	Pauri, Distt. Pauri Garhwal
10.	Sh. Suraj	-	-	Village-Chaufanda, P.O.-Chaplodi, Patti-Balikandarsyun, Distt. Pauri Garhwal
11.	Sh. Arvind	-	-	Mamgai Bhawan, Laxmi Nagar Road, Distt. Pauri Garhwal-246001
12.	Sh. Bhagwan Verma	-	-	Kandai Road, Pauri, Distt. Pauri Garhwal
13.	Sh. Manoj Singh	-	-	Jhandi Chaur, Uttari Kotdwar, Distt. Pauri Garhwal
14.	Sh. Sukhdev Badoni	-	-	Laxmi Narayan Mandir, Pauri, Distt. Pauri Garhwal
15.	Sh. Mahaveer Singh Negi	-	-	Rajkiya Allopathic Chikitsalaya, P.O.-Saankarsain, Patti-Balikandarsyun, Distt. Pauri Garhwal
16.	Sh. Gandhi Singh Negi	-	-	Village-Gandhigram Kadud, Patti-Sitonsyun, Distt. Pauri Garhwal

List of Participants in Hearing at Dehradun on 01.03.2016

Sl.	Name	Designation	Organization	Address
1.	Sh. Virat Seth	-	M/s Tata Motors Ltd.	Plot No. 1, Sector-1, IIE, SIDCUL, Pantnagar, Distt. Udham Singh Nagar-263145, Uttarakhand
2.	Sh. Devesh Pant	-	M/s Tata Motors Ltd.	Plot No. 1, Sector-1, IIE, SIDCUL, Pantnagar, Distt. Udham Singh Nagar-263145, Uttarakhand
3.	Sh. Pankaj Gupta	President	M/s Industries Association of Uttarakhand	C/o Satya Industries, Mohabbewala Industrial Area, Dehradun
4.	Sh. Rajiv Agarwal	Sr. Vice-President	M/s Industries Association of Uttarakhand	C/o Satya Industries, Mohabbewala Industrial Area, Dehradun
5.	Sh. K.L. Sundriyal	-	-	4(4/3), New Road, Near Hotel Relax, (Amrit Kauri Road), Dehradun
6.	Sh. T.S. Bhandari	Director	M/s Himalayan Resorts Pvt. Ltd.	16-Tagore Villa, Dehradun
7.	Sh. Mahesh Sharma	General Secretary	M/s Uttarakhand Industrial Welfare Association	Off. G-31, UPSIDC, Industrial Area, Selaqui, Dehradun, Uttarakhand
8.	Sh. Gulshan Rai Khanduja	-	Sh. Ganesh Roller Floor Mills	Mohabbewala Industrial Area, Subhash Nagar, Dehradun-248001
9.	Sh. Man Singh	General Manager	M/s Alps Industries Ltd.	1-A, Sector-10, Integrated Industrial Area, SIDCUL, Roshnabad Road, Haridwar-249403,

List of Participants in Hearing at Dehradun on 01.03.2016

Sl.	Name	Designation	Organization	Address
		(Engg.)		Uttarakhand
10.	Sh. Shakeel A. Siddiqui	General Manager (Commercial)	M/s Kashi Vishwanath Textile Mill Ltd.	Works : 5th Km. Stone, Ramnagar Road, Kashipur-244713, Distt. Udham Singh Nagar
11.	Sh. Manish Garg	-	Madhu Gupta & Co.	51/510, New Hyderabad, Lucknow
12.	Sh. Munish Talwar	Head-Electrical & Instrumentation	M/s Asahi India Glass Ltd.	Integrated Glass Plant, Village-Latherdeva Hoon, Manglaur-Jhabrera Road, P.O. Jhabrera, Tehsil Roorkee, Distt. Haridwar
13.	Sh. Vijay Singh	Member	Bhartiya Kisan Club	Village-Delna, Post-Jhabreda, Roorkee, Haridwar-247665, Uttarakhand
14.	Sh. Arvind Jain	Member	Tarun Kranti Manch (Regd.)	6-Ramleela Bazaar, Dehradun
15.	Sh. Katar Singh	President	Bhartiya Kisan Club	Village-Sabatwali, P.O.-Jhabreda, Tehsil Roorkee, Haridwar
16.	Sh. Gagan Arora	-	-	89/1/1, Race Course, Near Rose Mount School, Dehradun
17.	Sh. Nanda Dutt Madhwal	-	-	100/25, Ballupur Road, Dehradun
18.	Sh. Biru Bisht		-	Mohanpur, Post Off.-Premnagar, Dehradun-248007
19.	Sh. Vishwamitra	-	-	36-Panchsheel Park, Chakrata Road, P.O.-New Forest, Dehradun-248006
20.	Sh. V.S. Bhatnagar	-	-	98/3, Bell Road, Near Jr. Hiltons School, Clementown, Dehradun