Order

On

True up for FY 2022-23,

Annual Performance Review

for FY 2023-24

&

ARR for FY 2024-25

For

M/s Greenko Budhil Hydro Power

Pvt. Ltd.

March 28, 2024

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.: 52 of 2023

In the Matter of:

Petition filed by M/s Greenko Budhil Hydro Power Pvt. Ltd. for true-up of AFC for FY 2022-23, Annual Performance Review for FY 2023-24 and ARR for FY 2024-25 for Budhil Hydro Station of Greenko Budhil Hydro Power Pvt. Ltd. under Section 62 and 84 of the Electricity Act, 2003 read with the relevant Regulations and guidelines of the Commission.

In the Matter of:

M/s Greenko Budhil Hydro Power Pvt. Ltd.
Plot No. #1366, Road no. 45,
Jubilee Hills, Hyderabad-500033 ...Petitioner

AND

In the Matter of:

Uttarakhand Power Corporation Ltd.
Urja Bhawan, Kanwali Road, Dehradun ...Respondent

Coram

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

Date of Order: March 28, 2024

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

In accordance with the relevant provisions of the Act, the Commission had notified Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2018 (hereinafter referred to as "UERC Tariff Regulations, 2018") for the third Control Period from FY 2019-20 to FY 2021-22 and Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2021 (hereinafter referred to as "UERC Tariff Regulations, 2021") for the fourth Control Period from FY 2022-23 to FY 2024-25 specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC.

The Commission had issued the Order dated 31.03.2022 on approval of Business Plan and Multi Year Tariff for the fourth Control Period from FY 2022-23 to FY 2024-25. Subsequently, the Commission had carried out the Annual Performance Review (APR) for FY 2022-23 vide its Order dated 30.03.2023.

In compliance with the provisions of the Act and Regulation 8(1) and Regulation 10(1) of UERC Tariff Regulations, 2021, M/s Greenko Budhil Hydro Power Pvt. Ltd. (hereinafter referred to as "M/s GBHPPL" or "the Petitioner" or "the Generator") filed the Petition (Petition No. 52 of 2023 and hereinafter referred to as "Petition"), giving details of its revised projections of Aggregate Revenue Requirement (ARR) for FY 2024-25 and Annual Performance Review for FY 2023-24 on 30.11.2023. Through the Petition, the Petitioner has also requested for true up of FY 2022-23 based on the audited accounts in accordance with UERC Tariff Regulations, 2021.

The Petition filed by the Petitioner had certain infirmities/deficiencies. The Commission, accordingly, vide its letter no. UERC/6/TF-706/2023-24/2023/962 dated 14.12.2023 informed the Petitioner that the Commission has admitted the Petition for further processing subject to the condition that M/s GBHPPL 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. Through the same letter, the Petitioner was also directed to rectify the said infirmities in the Petition and submit certain additional information necessary for ARR determination. M/s GBHPPL vide its letter dated 22.12.2023 removed the critical deficiencies. Subsequently, the Petitioner submitted its reply to the other queries of the Commission vide letter dated 29.12.2023 and 08.02.2024.

This Order, accordingly, relates to the Tariff Petition filed by M/s GBHPPL for true up for FY 2022-23, APR for FY 2023-24 and revised ARR for FY 2024-25 and is based on the Petition as well as all the subsequent submissions made by M/s GBHPPL during the course of the proceedings and the relevant findings contained in the MYT Tariff Order dated 31.03.2022 and Order dated 30.03.2023.

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 generator. The Aggregate Revenue Requirement of M/s GBHPPL is recoverable from the beneficiary. It is the endeavour of the Commission, to issue Tariff Orders for M/s GBHPPL concurrently with the issue of Order on retail tariffs for Uttarakhand Power Corporation Limited (UPCL), so that UPCL is able to honour the payment liability towards the Annual Fixed Charges of M/s GBHPPL. For the sake of convenience and clarity, this Order has further been divided into following Chapters:

Chapter 1- Background and Procedural History.

Chapter 2 - UPCL's Objections/Suggestions, Petitioner's Responses and Commission's Views.

Chapter 3 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2022-23.

Chapter 4 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2023-24.

Chapter 5 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on ARR for FY 2024-25.

1. Background and Procedural History

M/s GBHPPL is a company incorporated under the Companies Act, 1956. M/s GBHPPL is a generating company falling within the definition under sub-section 28 of Section 2 of the Act and has developed a 70 MW (2x35 MW) Hydro Electric power project (hereinafter referred to as the "Project"). The Petitioner had executed a PPA for 70 MW capacity with the distribution licensee, i.e. UPCL and had initiated scheduling of power w.e.f. 01.12.2015. The Petitioner had filed a Petition for determination of tariff for supply of power from its project to UPCL from 01.12.2015 to 31.03.2016 and for the second Control Period from FY 2016-17 to FY 2018-19.

Subsequently, the Commission vide its Tariff Order dated 30.11.2016 had approved the Business Plan and Multi Year Tariff for M/s GBHPPL for the contracted capacity from 01.12.2015 to 31.03.2016 and for the second Control Period from FY 2016-17 to FY 2018-19. Subsequently, the Commission had carried out the true up of FY 2015-16 & FY 2016-17 and approved the Aggregate Revenue Requirement for FY 2018-19 vide Tariff Order dated 21.03.2018. Further, the Commission had carried out the true up of FY 2017-18 and approved the ARR for each year of the third Control Period from FY 2019-20 to FY 2021-22 vide Tariff Order dated 27.02.2019. Subsequently, the Commission vide Tariff Order dated 18.04.2020 had carried out the true-up of FY 2018-19 and approved the ARR for FY 2020-21. Thereafter, the Commission vide Tariff Order dated 26.04.2021 had carried out the true-up of FY 2019-20 alongwith with the APR for FY 2020-21 and ARR for FY 2021-22. Subsequently, the Commission vide Tariff Order dated 31.03.2022 had approved the Business Plan and MYT for fourth Control Period from FY 2022-23 to FY 2024-25 alongwith True up for FY 2020-21 and APR for FY 2021-22. Thereafter, the Commission vide Tariff Order dated 30.03.2023 had approved the ARR for FY 2023-24 alongwith true-up for FY 2021-22 and APR for FY 2022-23.

In accordance with Regulation 12 of the UERC Tariff Regulations, 2021, the Generating Company is required to file a Petition for Annual Performance Review by November 30 of every year. In compliance with the Regulations, M/s GBHPPL, filed Tariff Petition on APR for FY 2023-24 on 30.11.2023. Through the above Petition, M/s GBHPPL sought true up for FY 2022-23, APR for FY

2023-24 and ARR for FY 2024-25 based on the audited accounts for FY 2022-23 and revised projections for additional capitalisations for FY 2023-24 and FY 2024-25. The Commission vide its letter no. UERC/6/TF-706/2023-24/2023/962 dated 14.11.2023 informed the Petitioner that the Petition had certain deficiencies/data gaps and directed the Petitioner to rectify the said deficiencies in the Petition and it was required to submit certain additional information necessary for admission of the Petition. Further, through the same letter, the Commission provisionally admitted the Petition. This Order, accordingly, relates to the Petition filed by M/s GBHPPL for true up for FY 2022-23, APR for FY 2023-24 and revised ARR for FY 2024-25 and is based on the Petition as well as all the subsequent submissions made by M/s GBHPPL during the course of the proceedings and the relevant findings contained in the MYT Tariff Order dated 31.03.2022 and Tariff Order dated 30.03.2023.

In order to provide transparency to the process of tariff determination and give UPCL an opportunity to submit its objections/suggestions/comments on the proposals of M/s GBHPPL, the Commission sent the copy of the tariff proposals to UPCL vide letter no. UERC/6/TF-706/2023-24/2023/998 dated 28.12.2023.

UPCL vide its letter no. 396/UPCL/Comm/SE-II/B-II/Greenko dated 25.01.2024 submitted its comments on the Tariff Petition filed by the Petitioner, which was forwarded to the Petitioner for counter reply, if any. The Petitioner vide its letter dated 13.03.2024 submitted its rejoinder. The Commission has dealt with the reply of the Respondent and rejoinder of the Petitioner in Chapter-2 of this Order.

The submissions made by M/s GBHPPL in the Petition as well as additional submissions dated 22.12.2023, 29.12.2023, 08.02.2023 and 13.03.2024 have been discussed by the Commission at appropriate places in the Order alongwith the Commission's views on the same.

Meanwhile, based on the scrutiny of the Petition and subsequent submission of M/s GBHPPL, the Commission had pointed out certain data gaps in the Tariff Petition and sought following additional information/clarifications from the Petitioner:

- Trial Balance alongwith Financial Statements for FY 2022-23;
- Independent Agency's reports in support of additional capitalisation;
- Detailed breakup of Repair and Maintenance;

- Details of Other Income.

The submissions made by M/s GBHPPL 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. UPCL's Objections/Suggestions, Petitioner's Responses and Commission's Views

The Commission has received suggestions/objections/comments from UPCL on M/s GBHPPL's Petition for approval of approval of true up for FY 2022-23, Annual Performance Review for FY 2023-24 and Aggregate Revenue Requirement for FY 2024-25. The Commission has further obtained replies from the Petitioner on the suggestions/objections/comments received from UPCL. For the sake of clarity, the objections raised by UPCL and responses of the Petitioner have been summarized issue wise. In the subsequent Chapters of this Order, the Commission has kept in view the suggestions/objections/comments of UPCL and replies of the Petitioner while deciding the ARR for M/s GBHPPL.

2.1 Recovery of AFC on actual Design Energy.

2.1.1 *UPCL's Comment*

UPCL submitted that the Petitioner requested for recovery of AFC on actual energy as the plant actual energy generation during FY 2022-23 is less that the design energy due to the reasons beyond the control of the Petitioner. UPCL submitted that the Petitioner has already filed a separate Petition in the matter, hence, the shortfall of energy has to be taken care after the decision in the matter separately.

2.1.2 *Petitioner's reply*

The Petitioner submitted that while truing up for FY 2022-23, the Petitioner has considered the actual scheduled energy based on the Regional Energy Account issued by NRPC and in a parallel activity, the Petitioner has sought for recovery of the energy charges due to shortfall in energy generation for reasons beyond the Petitioner's control, i.e. the shortfall in the energy supplied to UPCL for FY 2020-21, FY 2021-22 and FY 2022-23 by way of a separate Petition before the Commission.

2.1.3 *Commission's view*

In the matter, the Commission is of the view that as the Petitioner has filed a separate

Petition before the Commission in the matter, the Commission does not find it prudent to deal the same in this Tariff Order.

2.2 Additional Capitalistion

2.2.1 *UPCL's Comment*

With regard to additional capitalisation, UPCL submitted that the Petitioner has neither submitted the independent agency report for capitalisation nor photographs as directed by the Commission. Further, proposed additional capitalisation for FY 2023-24 appears to be repeated in nature and, hence, needs to be reviewed and justification should be sought from the Petitioner in this regard.

2.2.2 *Petitioner's reply*

The Petitioner submitted that it has submitted the reports on the works alongwith the independent agency reports to the Commission. The Petitioner has been taking all due care and following prudent utility practices. The Petitioner submitted that before starting any work, efforts are made for comprehensive documentation in the form of both photographs and video recordings to be captured both before and after execution of works including maintenance, repairs or replacement of assets.

2.2.3 *Commission's view*

The Commission while carrying out the truing up for FY 2022-23 as discussed in subsequent Chapters of this Order has carried out the detailed analysis and prudence of additional capitalisation claimed and has allowed only those capital expenses which are necessary for smooth running of the plant. Further, the Commission has dealt with the projected additional Capitalisation for FY 2023-24 and FY 2024-25 under subsequent chapters of this Order.

2.3 Operation & Maintenance Expenses

2.3.1 *UPCL's Comment*

UPCL submitted that the Petitioner while seeking True-up for FY 2022-23 has requested to consider a cost of Rs. 17.98 Crore on account of O&M expenses head against the approved cost of Rs. 16.60 Crore. However, no breakup of the O&M cost and the reason for the increase in the actual O&M cost from the approved cost has been provided. Further, expenses to be incurred for FY 2023-24 and FY 2024-25 appears to be overpriced and hefty amount has not been justified by the Petitioner for FY 2024-25.

2.3.2 *Petitioner's reply*

The Petitioner submitted that it has already submitted the detailed breakup of the O&M expenses before the Commission. The Petitioner denies that expenses associated with hiring vehicles are in any manner exorbitant. The Petitioner submitted that vehicles for hire have a limited availability in the geographical location of the Petitioner and are the consequent charges.

2.3.3 *Commission's view*

Sharing of gain/loss on account of O&M expenses have been done in accordance with the provisions of UERC Tariff Regulations, 2021 after prudence analysis of actual O&M expenses incurred. Further, projected O&M expenses for FY 2024-25 have been approved in accordance with the provisions of UERC Tariff Regulations, 2021 subject to the condition that the same will be trued up while carrying out the truing up exercise for FY 2024-25 based on the actual O&M expenses incurred after prudence check.

3. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2022-23

3.1 Statutory Requirement

The Commission had notified the UERC Tariff Regulations, 2021 on 02.10.2021 in accordance with the provisions of the Act. The above Regulations were applicable for determination of Tariff for the fourth Control Period from FY 2022-23 to FY 2024-25.

Regulation 12 of the UERC Tariff Regulations, 2021 specifies as follows:

"12. Annual Performance Review

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

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

…

(3) The scope of the Annual Performance Review shall be a comparison of the 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 2022-23 for the contracted capacity of the generating station based on the audited accounts and has, accordingly, requested the Commission to carry out the truing up for FY 2022-23 alongwith the sharing of gains and losses.

3.2 Impact of Sharing of Gains and Losses on account of Controllable Factors for FY 2022-23

Regulation 14 of the UERC Tariff Regulations, 2021 specifies as follows:

"14. Sharing of Gains and Losses on account of Controllable factors:

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

(a) 1/3rd of such gain or loss shall be passed on as a rebate or allowed to be recovered in tariffs over such period as may be specified in the Order of the Commission;

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

The above referred Regulations 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 the impact of uncontrollable factors.

O&M expenses comprises of the major portion of AFC of M/s GBHPPL and are within the control of the Petitioner and, moreover, in accordance with UERC Tariff Regulations, 2021 these are controllable expenses. Similarly, in accordance with applicable Tariff Regulations, the variation in working capital requirement is also a controllable factor. Hence, the sharing of gains and losses has been carried out for these expenses. However, 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.

3.3 Physical Parameters

3.3.1 *NAPAF*

The Commission vide its Order dated 28.12.2016 on approval of PPA for the Petitioner's plant approved the NAPAF, in accordance with Regulation 3(54) of the UERC Tariff Regulations, 2015, as follows:

""Normative Availability" or "Target Availability" Or Normative Annual Plant Availability Factor (NAPAF) shall mean Eighty Five (85%) Availability of aggregate Contracted Capacity at the Delivery Point on Contract Year Basis. However, UPCL may vary the Availability Factor on monthly basis as required by UPCL but maintaining the NAPAF at 85% yearly basis."

As per the prevailing UERC Tariff Regulations, NAPAF is 85% for the hydro plant of the Petitioner. Further, the Commission vide its MYT Order dated 31.03.2022 had also fixed the NAPAF of 85% for the fourth Control Period from FY 2022-23 to FY 2024-25. The Commission is of the view that the same NAPAF shall continue to be applicable for FY 2022-23 without any change.

3.3.2 *Design Energy and Saleable Primary Energy*

The Commission in its MYT Order dated 31.03.2022 on approval of Business Plan and Multi Year Tariff for the fourth Control Period from FY 2022-23 to FY 2024-25 had approved the Design Energy of 283.54 MUs and saleable primary energy of 246.52 MUs after deducting the normative auxiliary consumption of 1.20% and adjusting home State share, i.e. 12% for FY 2022-23 and FY 2023-24 and saleable energy for FY 2024-25 after adjusting home State share of 18% of 236.43 MUs. The Commission decides to consider the design energy and saleable primary energy for FY 2022-23 as approved in MYT Order dated 31.03.2022.

3.4 Financial Parameters

3.4.1 *Capital Cost*

Regulation 21 (2) of UERC Tariff Regulations, 2021 specifies as under:

"The Capital cost of an existing project shall include the following:

a) The capital cost admitted by the Commission prior to 01.04.2022 duly trued up as on 01.04.2022;

b) Additional capitalisation and de-capitalisation for the respective year of tariff as determined in *accordance with Regulation 22; and*

c) *Expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulations 23."*

The Petitioner has claimed Opening GFA amounting to Rs. 537.37 Crore as on 01.04.2022. The Commission, vide its Tariff Order dated 30.03.2023, had approved the Opening GFA and net additional capitalisation amounting to Rs. 533.15 Crore and Rs. 4.22 Crore respectively for FY 2021-22 for the Petitioner's plant. Accordingly, the Commission has considered the approved closing capital cost, i.e. Rs. 537.37 Crore for FY 2021-22 as opening GFA for the purpose of truing up for FY 2022-23.

3.4.2 *Additional Capitalisation*

Regulation 22 of UERC Tariff Regulations, 2021 specifies as under:

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

a. Undischarged liabilities;

b. Works deferred for execution;

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

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

e. On account of change in law.

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

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

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

b. Change in law;

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

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

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

f. *In case of hydro generating stations, any additional expenditure which has become necessary 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;

g. *xxx*
h. *xxx*

(3) ...”

In the present Petition, the Petitioner has claimed additional capitalisation of Rs. 2.92 Crore and de-capitalisation of Rs. 0.06 Crore pertaining to vehicle for FY 2022-23 which reconciles with the audited annual accounts for FY 2022-23. Details of the same are given in the Table below:

Table 3.1 Additional Capitalisation claimed for FY 2022-23 (Rs. in Crore)

S. No.	Description	Amount	Justification
1.	Construction of a Protective wall with RR Masonry behind the Store and workshop at Budhil site	0.10	The left bank of Ravi River near the store and workshop location has started to erode regularly due to formations of localized drainage patterns on the left bank resulting in glacial deposits at the toe of the slope. The existing stone masonry wall on the left bank of the Ravi River over which store, and workshop situated is getting eroded regularly due to constant seepage from up hills, which results in swelling of soil and would further disintegrate the complete wing wall, causing failure of the platform. So, it is proposed to construct a curtain Wall near store and workshop and also considering footing of the wing wall must be placed over the well exposed hard rock.

2.	Construction of workers colony & supervisors room Foundation works at PH	0.09	The Budhil Power Plant is situated in very remote location, i.e. Village Kharamukh, Bharmour Tehsil of the Chamba Districtt H.P and is tribal area of HP. The accommodation for Security staff and worker is available in nearby village Garola which is 5 km away from Power House and Bharmour is 15 km away. Not only the hired accommodation is expensive but it is quite difficult to reach the site in monsoon rains and winter snow season. The Power House is connected through PWD roads from these villages. In rain and snow seasons roads often get closed and movement is very difficult. The staff associated with O&M activities are required to be retained and available near the Power House to attend the emergency breakdowns and avoid the generation loss. This affects the O&M activities during peak and lean season. Presently the Security staff and workers were living in the temporary sheds constructed during the construction time and had become unsafe to use as the condition of the sheds is very bad. Till now there is no permanent accommodation for Security staff and workers near power plant. Keeping in view of Geological condition and requirement of the plant the construction of worker colony is essential. The foundation of the worker and security staff colony was constructed. The accommodation of prefab structure will be constructed on that foundation.
3.	CC Road from Security check post to Steel Bridge at Power House	0.23	This is the main road for power house approach. The present road is metal road which has deteriorated during the years. Due to vehicle movement lot of dust enters in GIS, Transformer yard, Workshop and Store and accumulating dust is causing damages to Control Panels, equipments, Workshop machinery and store material inside Power Plant area. There is no alternative road and this is the only single road. For permanent solution concreting is required and the life of the equipment shall increase.
4.	Construction of CC road from Security Check Post to Dam Top at Dam Site of Budhil HEP	0.31	There is no alternative road and this single road gets damaged/blocked in rains. Material transportation and manpower movement during rainy and winter seasons gets hampered which hampers the annual maintenance activities during lean season and O&M activities during peak season. As a permanent solution, protection work and black toping with proper soiling and bearing/PCC road is required.
5.	Supply and Installation of Aluminium Doors & Windows for Security post room at Budhil Site	0.02	The existing security check post at Budhil power house is of temporary type which is constructed with tin sheets during the construction. The sheets and the structure has been damaged and needs to be constructed as a permanent and safe structure.
6.	Construction of permanent security check post at PH	0.04	The existing security check post at Budhil power house is of temporary type which is constructed with tin sheets during the construction. The sheets and the structure has been damaged and needs to be constructed as a permanent and safe structure.

7.	Construction of Store room at Dam site	0.08	Inside power house at DAM when maintenance works are going on in late hours main store gets closed and locked. To keep the bare minimum spares inside power house at DAM site to meet out emergencies and to cut down the maintenance time site store inside power house at DAM is required.
8.	Supply of AVR Excitation Panel and Erection, testing & commissioning of, Excitation panel with recommended spares for Unit 2	0.66	(A) No spares are available for the existing excitation system. In case any problem occurs in the excitation system, due to non availability of spares, the generation gets hampered. (B) Old panel is in working condition with one controller and no spares are available due to chinese make. if any problem occurs in the excitation system, due to non availability of spares, the generation gets hampered.
9.	Manufacturing of new one runner	1.15	There is only one spare runner supplied by OEM within original scope of supply. Since the project has been commissioned for about seven years back & worn out runner required replacement, if both the runner required are to be replaced in same year during annual maintenance period then after replacement, dismantled runner needs to be sent for refurbishment and it shall require minimum three month of machine downtime. By purchasing the new spare runner, the downtime period for annual maintenance will be reduced and thus avoiding generation loss.
10.	Battery bank 220V, 800Ah	0.18	The existing battery bank was procured and commissioned in 2010. The condition of the battery bank is very bad. M/s HBL Service engineer during its inspection visit has found there is leakage in the Batteries. The DC control supply is essential requirement of entire control and protection system of Power Plant, so it has been recommended to replace the battery bank as it may fail anytime.
11.	Supply of Geysers	0.03	Power plant is located in remote location and tribal area of HP. In rains and snow seasons roads often get closed and movement is very difficult. The staff associated with O&M activities are required to be retained and available near to Power house to avoid the generation loss. Till now there is no accommodation to workers near power plant. The New Office building has been established at Budhil Power House. The Present furniture available and in use is old and procured by Lanco during construction stage. The condition of the Furniture is bad. Providing a safe and relaxing atmosphere and a comfortable feeling to all the occupants, efficient operation of a workplace.
12.	T/W supply curtains		
13.	LED TV, Fridge and exhaust Fans		
14.	Data Systems and Computers	0.02	Laptop and desktop for office.
Total		**2.92**	

With regards to the additional capitalisation incurred for FY 2022-23, the Petitioner submitted that it has claimed additional capitalisation under Regulation 22(2) of UERC Tariff

Regulations, 2021. The Petitioner also submitted that the project has been in operation for more than 10 years and above-mentioned capital expenditure has become necessary for efficient operation of the plant.

It is pertinent to mention that the Commission vide its Tariff Order dated 31.03.2022 had not approved any projected additional capitalisation for FY 2022-23, directing the Petitioner to provide proper justification for the additional capitalisation in accordance with Regulation 22(2) of the UERC Tariff Regulations, 2021 duly substantiated with the technical justification and supported by the documentary evidence carried out by an independent agency at the time of truing up for FY 2022-23.

The Petitioner submitted Purchase Orders/Work Orders alongwith the report of the independent agency in support of the additional capitalisation incurred for FY 2022-23. The Commission has gone through all the submissions made by the Petitioner w.r.t. additional capitalisation for FY 2022-23. The Commission also examined the findings and suggestions contained in the report submitted by the independent agency for the purpose of allowance of additional capitalisation.

With respect to "Construction of workers' colony & supervision room Foundation works at PH", the Petitioner was directed to clarify whether additional capitalisation amounting to Rs. 0.09 Crore claimed for the assets during FY 2022-23 have been put to use or some activities are yet to be performed for completion of work/ put to use. In reply, the Petitioner submitted that, foundation work is completed and the remaining part, i.e. superstructure is in progress. In the matter, the Commission decides not to allow the additional capitalisation for the aforesaid work during FY 2022-23 as some works are still pending. The Petitioner is directed to claim the additional capitalisation for "Construction of workers' colony & supervision room Foundation works at PH" in the financial year in which all the activities pertaining to the said work is completed and asset is put to use.

Accordingly, based on the above discussion, the Commission approves the additional capitalisation of Rs. 2.82 Crore and de-capitalisation of Rs. 0.06 Corre excluding the additional capitalisation claimed for "Construction of workers' colony & supervision room Foundation works at PH" for the purpose of truing up of FY 2022-23 after prudence check.

Accordingly, the details of the trued-up capital cost for FY 2022-23 is as follows:

Table 3.2: Approved Gross Fixed Assets (Rs. on Crore)

S. No.	Particular	Opening GFA	Addition	Deduction	Closing GFA
1	Freehold Land	0.87	0.00	0.00	0.87
2	Leasehold Land	7.18	0.00	0.00	7.18
3	Buildings	66.21	0.78	0.00	66.99
4	Other Civil Works	226.10	0.00	0.00	226.10
5	Hydraulic Mechanical Works	31.72	0.00	0.00	31.72
6	Plant & Machinery	204.00	1.99	0.00	205.99
7	Vehicles	0.32	0.00	(0.06)	0.26
8	Furniture and Fixtures	0.27	0.00	0.00	0.27
9	Office Equipment	0.62	0.03	0.00	0.65
10	Computers	0.06	0.02	0.00	0.07
11	Computer Software	0.01	0.01	0.00	0.02
	Total	**537.37**	**2.82**	**(0.06)**	**540.14**

3.4.3 *Capital Structure*

Regulation 24 of UERC Tariff Regulations, 2021 specifies as under:

*"**24. Debt-Equity Ratio***

(1) For a project declared under commercial operation on or after 1.4.2022, debt-equity ratio shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as normative loan. Where actual equity employed is less than 30%, the actual equity would be used for determination of Return on Equity in tariff computations.

...

...

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2022 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall service in the matter specified in Regulation 22 and 23 of these Regulations.

(6) In case of Generating Company, Transmission Licensee, Distribution Licensee, or SLDC where investments have been made prior to 1.4.2022, Debt: Equity Ratio shall be as approved by the Commission in the previous Orders."

The Commission vide its Tariff Order dated 30.03.2023 had approved the Debt-Equity Ratio of 70:30 as on 31.03.2022 which has been considered in the present Petition also. Further, as per the submissions of the Petitioner, entire capitalisation for FY 2022-23 has been done through equity/internal accruals only. In accordance with the aforesaid Regulations, the amount of equity for the purpose of tariff determination has been limited to 30% and equity in excess of 30% has been considered as normative loan for the purpose of additional capitalisation. Further, with regard to decapitalisation, the Petitioner submitted that the vehicle was capitalised prior to execution of PPA, i.e. 01.12.2015. The Commission has considered the same normative Debt-Equity ratio for the purpose of decapitalisation which was approved as on 01.12.2015, i.e. 70:30, vide Order dated 30.11.2016.

Accordingly, based on the above discussion, capital structure as on 01.04.2022 and additional capitalisation for FY 2022-23, is as follows:

Table 3.3: Financing for capitalisation

Particular	Opening Capital structure as on 01.04.2022		During FY 2022-23				Closing capital structure as on 31.03.2023	
			Capitalisation		De-Capitalisation			
	(Rs. in Crore)	%	(Rs. in Crore)	%	(Rs. in Crore)	%	(Rs. in Crore)	%
Debt	376.15	70.00	1.98	70.00	(0.04)	70.00	378.08	70.00
Equity	161.22	30.00	0.85	30.00	(0.02)	30.00	162.05	30.00
Total	**537.37**	**100.00**	**2.82**	**100.00**	**(0.06)**	**100.00**	**540.14**	**100.00**

3.4.4 *Depreciation*

Regulation 28 of the UERC Tariff Regulations, 2021 specifies as follows:

"28. Depreciation

(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

Provided that 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 the depreciation has been charged at the rates specified by the Commission in UERC Tariff Regulations, 2021 for FY 2022-23. The Petitioner has claimed depreciation of Rs. 26.76 Crore for FY 2022-23.

In the present Petition, the Commission has followed the same methodology of allowing depreciation as adopted by it in the previous Tariff Orders. Accordingly, allowable depreciation works out to Rs. 26.97 Crore for FY 2022-23 based on the prevailing UERC Tariff Regulations.

Details of the depreciation as approved in Tariff Order, claimed by the Petitioner and trued up for FY 2022-23 is as follows:

Table 3.4: Depreciation approved for FY 2022-23 (Rs. in Crore)

Particular	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
Depreciation	26.77	26.76	26.97

3.4.5 *Interest on Loans*

Regulation 27 of the UERC Tariff Regulations, 2018 specifies as follows:

27. Interest and finance charges on loan capital and on Security Deposit

(1) The loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2022 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2022 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 wheighted average rate of interest shall be considered.

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

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

…"

The Petitioner submitted that for the purpose of calculation of interest on loan, normative debt has been considered as 70% of additional capitalisation and, accordingly, it has claimed interest on normative loan of Rs. 10.93 Crore for FY 2022-23 for the purpose of truing up based on the weighted average rate of interest of 9.30% p.a., w.r.t. interest rate of Non-Convertible debentures.

The Commission had approved the normative net closing loan of Rs. 128.75 Crore for FY 2021-22 in its Tariff Order dated 30.03.2023. The same has been considered as normative net opening loan for FY 2022-23. Further, 70% of the net additional capitalisation approved for FY 2022-23 has been considered as addition to normative loan which works out to Rs. 1.93 Crore and repayment has been considered equivalent to admissible depreciation, i.e. Rs. 26.97 Crore. Hence, interest on normative loan works out to Rs. 10.77 Crore in accordance with regulations considering the interest rate @ 9.30% p.a and additional capitalisation on pro-rata basis.

Further, it has been observed from the submission of the Petitioner that the Petitioner has considered Rs. 0.14 Crore pertaining to 'Bank & Other charges' under the head of Corporate expenses in A&G expenses. The Commission is of the view that such expenses are part of finance charges on loan capital. Accordingly, the amount of Rs. 0.14 Crore pertaining to Bank Charges for FY 2022-23, actually incurred by the Petitioner as per the audited accounts, has been allowed by the Commission as a part of the finance cost of FY 2022-23 on actual basis.

Based on the above, details of the interest claimed and allowed during the truing up for FY 2022-23 is given in the Table below:

Table 3.5: Interest on Normative Loan for FY 2022-23 (Rs. in Crore)

Particular	Approved in Tariff Order dated 31.03.2022	Claimed by Petitioner	Approved
Interest on Normative Loan	12.37	10.93	10.91*

**inclusive of bank charges actually incurred as per audited accounts.*

3.4.6 *Return on Equity (RoE)*

Regulation 26 of the UERC Tariff Regulations, 2021 specifies as follows:

"26. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 24.

Provided that, Return on Equity shall be allowed on account of allowed equity capital for the assets put to use at the commencement of each financial year.

Provided further that, if the generating stations/licensees are able to demonstrate the actual date of asset being put to use and capitalized in its accounts of each asset for the purposes of business carried on by it through documentary evidence, including but not limited to 'asset put to use certificate', 'audited accounts' etc., then in such cases, after due satisfaction of the Commission, the RoE shall be allowed on pro-rata basis after considering additional capitalization done during the year out of the equity capital.

(2) Return on equity shall be computed on at the base rate of 15.50% 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.

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the distribution company or the generating station or the transmission system;"

The Petitioner has claimed the Return on Equity amounting to Rs. 26.74 Crore on the closing equity for FY 2022-23 after considering actual additional capitalisation during FY 2022-23.

The Commission has allowed the Return on Equity on the opening equity net of de-capitalisation base at the rate of 16.50%, after excluding additional capitalization after cut-off date beyond the original scope of work excluding additional capitalization due to change in law in accordance with the first proviso of Regulation 26(2) of UERC Tariff Regulations, 2021 and decapitalisation on account of removal of vehicle.

The Petitioner's plant was commissioned in May 2012, therefore, in accordance with the provisions of then prevailing Tariff Regulations the cut-off date for the Petitioner's plant works out to 31.03.2015. The Commission had approved Equity additions amounting to Rs. 9.65 Crore during the true from FY 2015-16 to FY 2021-22, i.e. beyond the cut-off date. Out of the said addition to the Equity, an amount of Rs. 0.32 Crore pertains to construction of Permanent hazard waste store, installation of Stand by batteries and other necessary remedial measures which were based on the observation of DoE Govt of HP and Audit after cut-off date. Since, the aforesaid works are on account of suggestion given by DoE Govt. of HP, the same have not been excluded from the opening equity base for the purposes of allowing RoE for FY 2022-23.

In view of the above, the Commission has worked out the addition to Equity post cut-off date amounting to Rs. 9.32 Crore. Further, the Commission has approved Equity addition of Rs. 0.85 Crore for FY 2022-23. As discussed in subsequent paras of this Order, the Commission has approved rate of interest on loan capital as 9.30% for FY 2022-23. Accordingly, RoE has been allowed on the equity pertaining to additional capitalisation post cut-off date, as discussed above, at the rate of 9.30% in accordance with the first proviso to sub-regulation (2) of Regulation 26 of UERC Tariff Regulations, 2021 on pro-rata basis.

Details of the Return on Equity claimed and trued up for FY 2022-23 is as follows:

Table 3.6 : Return on Equity claimed by the Petitioner and approved by the Commission for FY 2022-23 (Rs. in Crore)

Particular	Approved in Tariff Order dated 31.03.2022	Claimed by Petitioner	Approved after truing up
(A) Equity within Original Scope of Work			
Opening Equity	159.96	161.21	151.90
Net Addition during the year	0.00	0.87	-0.02
Closing Equity	159.96	162.09	151.88
Rate of Return on Equity	16.50%	16.50%	16.50%
Return on Equity	**26.39**	**26.74**	**25.06**
(B) Equity beyond Original Scope of Work			
Opening Equity	-	-	9.32
Net Addition during the year	-	-	0.85
Closing Equity	-	-	10.17
Rate of Return on Equity	-	-	9.30%
Return on Equity	**-**	**-**	**0.89**
Total RoE (A)+ (B)	**26.39**	**26.74**	**25.95**

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

Truing up of O&M Expenses for FY 2022-23

Regulations 48 of UERC Tariff Regulations, 2021 specifies as follows:

With regard to Operation and Maintenance expenses, Regulation 48(2) of the UERC Tariff Regulations, 2021 specifies 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 2020-21, the operation and maintenance expenses for the base year of FY 2020-21 shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively, for the first year of operation and shall be escalated from the subsequent year in accordance with the escalation principles specified in clause (e) below.

(c) ***For Generating Stations declared under commercial operation on or after 1.4.2022.***

…

(d) Post determination of base O&M Expenses for the base year, i.e. FY 2020-21, the O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. 2021-22 shall be approved based on the formula given below:-

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

Where –

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

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

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

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

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

Where -

- *EMPn-1 – Employee Costs for the (n-1)th year;*
- *A&G n-1 – Administrative and General Costs for the (n-1)th year;*
- *Provision: Cost for initiatives or other one-time expenses as proposed by the Generating Company and approved by the Commission after prudence check.*
- *'K' is a constant to be specified by the Commission %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on Generating Company's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*

  Provided that for the projects whose Renovation and Modernisation has been carried out, the R&M expenses for the nth year shall not exceed 4% of the capital cost admitted by the Commission.
- *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 and it can be greater than or less than zero based on the actual performance. Value of Gn shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on Generating Company's filings, benchmarking and any other factor that the Commission feels appropriate*

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

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

(e) …

(f) …"

As per Regulation 48(2)(a) read with Regulation 48(2)(d) of UERC Tariff Regulations, 2021, if the hydro generating power plant is in operation for more than five years preceding the base year, i.e. FY 2020-21, normative O&M expenses for the first year of the control period will be approved by the Commission taking into account the actual O&M expenses for last five years till base year based on the formula specified for determination of normative O&M expenses for the fourth Control Period. In the present case, the Budhil hydro power plant came under the jurisdiction of this Commission from 01.12.2015 and the plant has completed its five years of operation in the regulatory regime. Therefore, normative O&M for the said Plant shall be determined in accordance with the provisions of Regulation 48(2)(d) of UREC Tariff Regulations, 2021 for the fourth Control Period, i.e. FY 2022-23 to FY 2024-25. In the subsequent paragraphs of this Order, the Commission has carried out the truing up of O&M expenses for FY 2022-23 in accordance with above mentioned regulations.

The submissions of the Petitioner and the Commission's analysis on the O&M expenses for FY 2022-23 is detailed below.

3.4.7.1 Employee expenses

The Petitioner submitted that the actual employee cost for FY 2022-23 is Rs. 7.56 Crore. Further, the Petitioner submitted that in accordance with the provisions of regulations, normative employee expenses work out to Rs. 8.64 Crore considering actual employee expenses for FY 2021-22, i.e. Rs. 7.99 Crore and CPI of 6% and growth factor of 1.90%.

The Commission has followed the same methodology as specified in UERC Tariff Regulations, 2021 and MYT Order Dated 31.03.2022 for the fourth Control Period. The Petitioner has considered Gn of 1.90%% for FY 2022-23 as considered by the Commission for FY 2022-23 in MYT Order dated 31.03.2023. The Commission during the proceeding of the Petition, directed the Petitioner to submit actual number of employees. In reply, the Petitioner vide its submission dated 29.12.2023 submitted that the closing number of employees during FY 2021-22 and FY 2022-23 are 93 and 92 respectively. The Commission observed that there is a negative growth in the number of employees whereas the Petitioner has considered employee growth rate of 1.90% as approved by the Commission in the MYT Order dated 31.03.2022.

The Commission has considered the details of employees submitted by the Petitioner vide submission dated 29.01.2024. There is no growth in the number of employees as per the data submitted by the Petitioner. Accordingly, the Commission has considered Gn as nil. The opening gross employee expenses for FY 2022-23 have been adjusted for the Gn factor approved for FY 2022-23, i.e. nil and escalated with CPI Inflation of 5.89%. The gross employee expenses so arrived have been considered as the approved normative employee expenses for FY 2022-23.

The normative employee expenses approved for FY 2022-23 is as shown in the Table below:

Table 3.7: Normative Employee expenses approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	Approved in Tariff Order dated 31.03.2023	Claimed	Approved
EMPn-1	6.11	7.99	6.95
Gn	1.90%	1.90%	0.00%
CPI inflation	6.00%	5.89%	5.89%
EMPn=(EMPn-1) x (1+Gn)x(1+CPIinflation)	**6.60**	**8.63**	**7.36**
Capitalisation rate	0.00%	0.00%	0.00%
Less: Employee expenses capitalised	0.00	0.00	0.00
Net Employee expenses	**6.60**	**8.63**	**7.36**

3.4.7.2 R&M expenses

The Petitioner submitted that the R&M expenses for FY 2022-23 has been proposed as per the UERC Tariff Regulations, 2021. The Petitioner has considered the K factor of 0.98% for FY 2022-23 as approved by the Commission vide Tariff Order dated 31.03.2022 for the fourth Control Period. Further, the Petitioner has considered the WPI inflation of 5.35%. Accordingly, the Petitioner has claimed the R&M expenses of Rs. 5.55 Crore for FY 2022-23 after considering additional capitalisation.

The Commission has determined the R&M expenses for FY 2022-23 in accordance with UERC Tariff Regulations, 2021. As per provisions of Regulation 48(2)(d) of UERC Tariff Regulations, 2021 'k' is a constant to be specified in percentage. Accordingly, the Commission has considered the 'k' factor, i.e. 0.98% as approved by the Commission vide Tariff Order dated 31.03.2022 for the fourth Control Period. The Commission has considered the opening GFA for FY 2022-23. The Commission has considered the WPI inflation of 5.32% which is the average increase in the Wholesale Price Index (WPI) for FY 2022-23.

The normative R&M expenses approved by the Commission for FY 2022-23 is as shown in the Table below:

Table 3.8: Normative R&M expenses approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
K	0.98%	0.98%	0.9837%
GFAn-1	533.15	537.37	537.37
WPI inflation	2.42%	5.35%	5.32%
R&Mn = K x (GFAn-1) x (1+WPI inflation)	**5.37**	**5.55**	**5.57**

3.4.7.3 A&G expenses

The Petitioner submitted that the A&G expenses for FY 2022-23 has been determined by applying WPI inflation rate on the actual A&G expenses for FY 2021-22. The Petitioner submitted that normative A&G expenses works out to Rs. 4.94 Crore for FY 2022-23.

The Commission has followed the same methodology as specified in UERC Tariff Regulations, 2021 and Tariff Order dated 31.03.2022 for the fourth Control Period from FY 2022-23 to FY 2024-25.

A&Gn for FY 2022-23 has been computed considering WPI inflation indexation of 5.32.%. Further, the Petitioner submitted that no A&G expenses have been capitalised. Accordingly, normative A&G expenses for FY 2022-23 works out to Rs. 4.76 Crore considering actual Petition filing fee amounting to Rs. 0.05 Crore.

The normative A&G expenses approved by the Commission for FY 2022-23 is as shown in the Table below:

Table 3.9: Normative A&G expenses approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	Approved in Tariff Order 31.03.2022	Claimed	Approved
A&Gn-1	4.47	4.64	4.47
WPI inflation	2.42%	5.35%	5.32%
A&Gn=A&Gn-1 x (1+WPI inflation)	**4.58**	**4.89**	**4.71**
Capitalisation rate	-	-	-
Capitalised A&G expenses	-	-	-
Net A&G expenses	**4.58**	**4.89**	**4.71**
License Fee	0.05	0.05	0.05
Total A&G expenses	**4.63**	**4.94**	**4.76**

3.4.7.4 O&M expenses

The Normative O&M expenses approved by the Commission for FY 2022-23 is as shown in the Table below:

Table 3.10: Normative O&M expenses approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
Employee expenses	6.60	8.63	7.36
R&M expenses	5.37	5.55	5.57
A&G expenses	4.63	4.94	4.76
Total O&M expenses	**17.11**	**19.12**	**17.69**

The Commission would like to advise the Petitioner to exercise proper caution and prudence while incurring the O&M expenses as the same are controllable in nature. The Petitioner should ensure to restrict the actual O&M expenses within the norms allowed by the Commission.

With regard to admissible O&M expenses for FY 2022-23, the Commission analysed the audited annual accounts alongwith the Trial Balance for FY 2022-23. The Commission observed that the O&M claimed by the Petitioner are inclusive of Rs. 0.01 Lakh and Rs. 0.02 Crore pertaining to Donation and CSR respectively under the head of A&G expenses as per audited annual accounts for FY 2022-23. Further, the Commission observed that the Petitioner has charged Rs. 3.00 Crore under the head of miscellaneous expenses in A&G expenses for Electoral Bonds. With regard to such expenses, the Commission is of the view that such expenses are not necessary to be incurred for the successful running of the plant but are incurred to meet the statutory requirement under the Companies Act, 2013 out of the profits. Accordingly, such expenses are to be met out of profit and if such expenses are allowed in the ARR, it would indirectly mean that such expenses are being loaded on to the consumers and are not borne by the Petitioner. Hence, the same is disallowed.

Further, as discussed in the above paragraphs of this Order, actual bank charges have been considered under the head of "Interest on Loan". Accordingly, the same has not been considered under the head of O&M expenses.

O&M expenses have been considered as controllable factor and are subject to sharing of gains and losses. Further, since UERC Tariff Regulations, 2021 have been considered for the purpose of computation of normative O&M expenses, sharing of gain/loss on account of controllable factors needs to be done as per UERC Tariff Regulations, 2021. Accordingly, O&M expenses will have to be shared in the manner given in the Table below:

Table 3.11: O&M Expenses Approved After Sharing of Gains and Losses for FY 2022-23 (Rs. Crore)

Particulars	Actual after prudence check	Normative as per Regulations	Efficiency loss	Generator Share	Rebate in Tariff	O&M approved after sharing
	A	B	C=B-A	D=2/3xC	(E)=1/3xC	F= A+D
O&M Expenses	14.80	17.69	2.88	1.92	0.96	16.73

3.4.8 *Interest on Working Capital*

The Petitioner has submitted that it has availed interest free loans from Group Company to meet its working capital requirement and no actual expenditure has been incurred towards interest on working capital. With respect to working capital and interest thereon, Regulation 33 of the UERC Tariff Regulations, 2021 specifies as under:

*"**33. Interest on Working Capital***

Rate of interest on working capital shall be on normative basis and shall be equal to the weighted average of 'one year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India from time to time for the financial year in which the application for determination of tariff is made plus 350 basis points

(1) Generation:

...

b) 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 equivalent to two months of annual fixed charges.

..."

3.4.8.1 One **Month** *O&M Expenses*

The Commission has trued up the annual O&M expense for FY 2022-23. Based on the approved O&M expenses, one month's trued up O&M expenses have been worked out for determining the working capital requirement.

3.4.8.2 Maintenance Spares

The Commission has considered the maintenance spares in accordance with the prevailing UERC Tariff Regulations for FY 2022-23. The Commission has determined the plant wise maintenance spares requirement @ 15% of the trued-up O&M Expenses for FY 2022-23.

3.4.8.3 Receivables

UERC Tariff Regulations, 2021 envisage receivables equivalent to two months of annual fixed charges as an allowable component of working capital. Aggregate Revenue Requirement (AFC) 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 AFC for FY 2022-23.

As regards the interest on working capital, Regulation 33 of UERC Tariff Regulations, 2021 specifies rate of interest on working capital to be taken equal to the weighted average rate of one-year MCLR as declared by SBI from time to time for the financial year in which the application for determination of tariff is made plus 350 basis points. Accordingly, the Commission has considered the prevailing weighted average rate of one year MCLR of State Bank of India, i.e. 10.50% for computing the Interest on Working Capital.

Accordingly, the normative Interest on working Capital for FY 2022-23 as approved by the Commission is as shown in the Table below:

Table 3.12: Interest on working capital approved by the Commission for FY 2022-23 (Rs. in Crore)

Particular	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
O&M Expenses	1.38	1.50	1.47
Maintenance spare	2.49	2.70	2.65
Receivables	14.00	14.14	13.63
Total	**17.88**	**18.33**	**17.76**
IWC	**1.88**	**2.20**	**1.86**

Further, the UERC Tariff Regulations, 2021 specify for sharing of gains/losses due to the controllable factors and as per Tariff Regulations, variation in working capital requirements is a controllable factor. Further, as mentioned above, as the Petitioner has availed interest free loan for working capital, actual interest on working capital has been considered nil. Accordingly, entire interest on working capital worked out as per Regulations is a gain and the Commission has shared the gain in accordance with the provisions of UERC Tariff Regulations, 2021.

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

Table 3.13: Interest on Working Capital for FY 2022-23 after Sharing of Gains (Rs. Crore)

Particulars	Actual	Normative as Trued up	Efficiency gain/loss	Generator Share	Rebate in Tariff	IWC approved after sharing
	A	B	C=B-A	D=2/3xC	E=1/3xC	F=A+D
IWC	0.00	1.86	1.86	1.24	0.62	1.24

3.4.9 *Non-Tariff Income*

Regulation 46 of UERC Tariff Regulations, 2021 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 not claimed any Non-Tariff Income for FY 2022-23. However, the Commission observed that there is a Non-Tariff Income of Rs. 1.69 Crore as per the audited accounts for FY 2022-23 pertaining to Interest on fixed deposits.

The Petitioner submitted that interest earning investments as reflected in the financial statements of the Petitioner for FY 2022-23 have been made out of the retained earnings of the entity. The Petitioner further submitted that it did not distribute any dividend to its shareholders. Hence, the non-tariff income on account of investments made from the retained earnings may be allowed to be retained by the Petitioner.

The Commission analysed the investment details submitted by the Petitioner and RoE approved by the Commission for respective years. The Commission observed that the Petitioner had claimed that post CoD the capitalization have been funded entirely through internal resources and also that it is investing its funds on rolling basis based on surplus funds available with it. Accordingly, the Commission worked out the average investment which is less than the average RoE available with the Petitioner for FY 2022-23 after adjusting expenditure incurred for procurement of assets and payments towards CSR & Electoral Bonds. Accordingly, the Commission allows the interest on fixed deposits made out of RoE amounting to Rs. 1.69 Crore to be retained by the Petitioner.

Further, the Commission directed the Petitioner to submit the details of the accounting head under which revenue w.r.t. utilisation of dedicated transmission line by HPPTCL for evacuation of power from Bajoli Holi HEP and SHPs located in Himachal Pradesh were booked. The Petitioner submitted that the amount received from HPSEBL and GMR Bajoli Holi HEP were adjusted by UPCL against the monthly bills raised by the Petitioner.

In the matter, since the revenue for utilisation of dedicated transmission line by HPPTCL for evacuation of power from Bajoli Holi HEP and SHPs located in Himachal Pradesh was not considered while approving the AFC for FY 2022-23 by the Commission, and since, UPCL has also adjusted this amount against the monthly bills raised by the Petitioner, it will not be proper to consider the same under Non-tariff income to work out the net AFC for the Petitioner. Accordingly, for the purpose of true up for FY 2022-23, the Commission considers the Non-Tariff Income as nil.

3.4.10 *Aggregate Revenue Requirement for FY 2022-23*

Based on the above analysis, the Commission has worked out the trued-up AFC for FY 2022-23. The summary of the same is as follows:

Table 3.14: Annual Fixed Charges for FY 2022-23 approved by the Commission (Rs. in Crore)

Particulars	Tariff Order dated 31.03.2022	Claimed	Allowable
Depreciation	26.77	26.76	26.97
Interest on Loan & Financial Cost	12.37	10.93	10.91
Return on Equity	26.39	26.74	25.95
O&M Expenses	16.60	19.12	16.73
Interest on Working Capital	1.88	2.20	1.24
Less: Non-Tariff Income	0.00	0.00	0.00
Total	**84.02**	**86.74**	**81.80**

Accordingly, trued-up AFC for FY 2022-23 works out to Rs. 81.80 Crore after sharing of gain/loss on account of controllable factors. Recovery of AFC for FY 2022-23 has been envisaged through two-part tariff, i.e. through Capacity Charges linked with NAPAF & PAFM and Energy Charges linked with generation.

With regard to the recovery of Capacity Charges for FY 2022-23, the Petitioner submitted that actual Plant Availability Factor during FY 2022-23 was 87.21%. The Commission has gone through the provisional Declared Capacity Certificate issued by SLDC for FY 2022-23 and observed that the actual PAFY works out to 87.20% for the year. Accordingly, the Commission has considered the actual PAFY of 87.20% for FY 2022-23 for recovery of Capacity Charges.

As discussed earlier, trued-up AFC for FY 2022-23 works out to Rs. 81.80 Crore after sharing of gain/loss on account of controllable factors against the actual recovered amount of Rs. 82.44 Crore by the Petitioner from UPCL under the two-part tariff. The Petitioner has supplied 231.22 MUs during FY 2022-23 which is less than the saleable energy of 246.52 MUs. Accordingly, based on the above discussions, the summary of truing up for FY 2022-23 after considering the actual performance achieved in FY 2022-23 is shown in the Table below:

Table 3.15: Summary of net truing-up for FY 2022-23

AFC to be recovered from UPCL (Rs. in Crore)	Capacity Charges (Rs. in Crore)	NAPAF (%)	Actual PAFY (%)	Capacity Charges allowable (Rs. in Crore)	Capacity Charges after Sharing (Rs. Crore)	Saleable Energy (MU)	Actual Energy Considered (MU)	Per unit rate approved (Rs./kWh)	Allowable Energy Charge (Rs. in Crore)	Secondary Energy (MU)	Sec. Energy Rate (Rs./kWh)	Total Sec Energy charges (Rs. in Crore)	Total allowable (EC+CC) (Rs. in Crore)	Total billed to UPCL (Rs. in Crore)	Turing-up impact
81.80	40.90	85%	87.20	41.96	41.61	246.52	231.22	1.659	38.36	0.00	0.00	0.00	79.97	82.44	(2.48)

Thus, the Commission has computed the net surplus in ARR of Rs. 2.48 Crore for FY 2022-23 on the account of sharing of gains and losses and considering the actual performance parameters. Further, with regard to the revenue w.r.t utilisation of dedicated transmission line by HPPTCL for evacuation of power from Bajoli Holi HEP and SHPs located in Himachal Pradesh, the Petitioner has stated that the revenue from HPPTCL has been adjusted by UPCL against the bills raised by it in the last quarter of FY 2022-23. Since UPCL has already adjusted this amount, the same will not have any truing up impact, accordingly, the Commission has not considered the same. Based on the above, the total amount to be refunded to UPCL by the Petitioner alongwith the carrying cost works out to Rs. 3.07 Crore. **The Commission directs the Petitioner to refund the surplus amount on account of truing up for FY 2022-23 in 12 equal monthly instalments commencing from April 2024 to March 2025.**

4. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2023-24

4.1 Annual Performance Review

The Commission, vide its MYT Order dated 31.03.2022, approved the Tariff for the fourth Control Period, i.e. FY 2022-23 to FY 2024-25 for the Petitioner's plant. Subsequently, the present Petition has been filed for approval of APR for FY 2023-24. Regulation 12(3) of the UERC Tariff Regulations, 2021 stipulates that under the MYT framework, the performance of the generating company shall be subject to Annual Performance Review.

Regulation 12(3) of the UERC Tariff Regulations, 2021 specifies as under:

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

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

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

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

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

The Commission vide its Tariff Order dated 30.03.2023, had approved the AFC for FY 2023-24 based on the approved capital cost as on 31.03.2022. The Petitioner, in its present Petition, has proposed revision of estimates for FY 2023-24 based on the audited accounts for FY 2022-23 and revised estimates for FY 2023-24. Details of the same are as follows:

Table 4.1: Additional capitalisation claimed for FY 2024-25

S. No.	Particulars	Rs. in Crore	Justification of the work carried out /proposed to be carried out
1.	DG, Standby, 600 KVA, Make Sudhir Genset	0.44	The Old DG set is in operation since 2010. It is the emergency source of the supply during the 220 kV Line Breakdown. Budhil is Underground powerhouse and continuous dewatering is required for drainage of seepage and leakage water of the powerhouse. In case of failure of main DG set no standby DG set is available.
2.	Hydraulic Oil Filtration Machine Make Alpha Lavel	0.11	At Budhil Dam 3 OPUs of Radial gate and 2 OPUs of Silt Flushing Gates are there. Due to high moisture at Dam area frequent dehydration and filtration of Hydraulic oil is required. Road distance between Dam and Powerhouse is 25 kms and transportation of Hydraulic oil filtration machine is difficult. So, it is necessary to keep one filtration machine at DAM and can be used as and when required
3.	Local Public Address (PA) System:	0.08	As per the Central Electricity Authority (CEA), the installation of Local Public Address (PA) System is compulsory for Hydro Power stations and 220 kV switchyards. To fulfil the compliance the PA system installation is required.
4.	Balancing Machine:	0.23	The power plant is located in remote and tribal area of Himachal Pradesh and there is no well-equipped workshop near to power plant with balancing machine. For balancing of runner we have to go to Pathankot, Jalandhar and Ludhiana which takes long time. To cut-down transit /minimize the time balancing machine is required at plant
5.	Furniture for New Office Building:	0.14	The New Office building construction is completed at Budhil Power House. The present furniture available and in use is old and procured by Lanco during construction stage. The condition of the Furniture is bad and hence it is proposed for replacement with new furniture
6.	Requirement of Vehicle (Mahindra Bolero) at Site:	0.21	Company owned Vehicle engine has ceased functioning and it is in breakdown down condition since 05-11-2020. This vehicle is 2009 model and due to continuous use of vehicle in hilly village path, wear and tear it is not safe. Hence, it is proposed for one emergency vehicle.
7(a).	Retrofitting of generator transformer protection panel for Unit-1 (for supply):	0.36	Transformer Protection Panel Main and Standby of Unit 1: Old panel is of NARI China Make and relays used presently are outdated. Availability of spares is a challenge and there is minimal support from OEM during malfunctioning. To keep the Generator Transformer protection system of Unit 1 in healthy condition it is required to replace the Chinese make relays with GE relays.
7(b).	Installation, Testing and Commissioning of Generator Transformer	0.02	-

Table 4.1: Additional capitalisation claimed for FY 2024-25

S. No.	Particulars	Rs. in Crore	Justification of the work carried out /proposed to be carried out
	Protection Panel		
8(a).	Construction of permanent security check post at Dam & PH	0.03	-
8(b).	Construction of permanent security check post at PH	0.01	-
8(c).	Construction of permanent security check post at Dam	0.04	-
9(a).	5T Fork lifter/Mini loader	0.24	(Against this we will take Bus and other vehicle) 2400000 - Bus 1000000- Fork lifter"
9(b).	5T Fork lifter	0.08	-
10.	Providing side cladding with CGI sheet on both side of MAT	0.15	"It will make healthy environment as dust will not enter the power house main cavern. Also, the aesthetic look of power plant cavern will improve
11.	Manufacturing of top & bottom cover:	0.67	CWP and will get by Dec 2023. The top & bottom ring of both the generation units are required to be replaced in same year annual maintenance period. After replacement of top & bottom ring need to be refurbished and it requires minimum 1 to 1.5 months. This leads to increased downtime of machines. By purchasing the top & bottom covers, the shut-down.
12.	Establishing of bailey bridge at dam site:	0.90	Budhil Hydro Power Plant is run of the river Power Plant with four hours live storage for peaking. The Plant consist of concrete gravity Dam with sill level at 1620.00 meter MSL and Top level at 1651.50 meters MSL. There are two inlet gates connecting water conductor system with three radial gates for spilling of excess inflow or opened in high silt level & flood in river. Due to river bed material passing through the radial gate rubber seals are getting damaged every year. To carry out the repair/ replacement of radial gate seals and repair of sill beam concrete damaged stop log gates needs to be lowered to retain the water in reservoir and continue the generation. These gates are lower with gantry carne at the top of the Dam. The movement of man and material over the dam top gate main Dam is connected through bridge of 30.00 span. The existing bridge was earlier used for construction activities was relocated from coffer dam to Dam top and got damaged due to heavy rock falling in month of August 2022. There is now no approach to Dam top through road after damage of the bridge and in routine or emergency for carry out the repair of Dam radial gates and intake would not be possible. The movement of any

Table 4.1: Additional capitalisation claimed for FY 2024-25

S. No.	Particulars	Rs. in Crore	Justification of the work carried out /proposed to be carried out
			type of the vehicle is not possible. The alternate way (Emergency Stairs) are being used by the shift and maintenance staff from the date of damage of the bridge. The connectivity of the Dam top with road is the essential requirement for day to day activity.
13.	Biometric System - Access control System	0.02	-
	Total	**3.74**	

In accordance with Regulation 12(3) of the UERC Tariff Regulations, 2021 the scope of annual performance review is limited to the revision of estimates for the ensuing year, if required, based on the audited financial results for the previous year and does not provide for the revision of estimates for the current year and give effect on this account in the estimates of the ensuing year.

The Commission observed that additional capitalisation amounting to Rs. 0.23 Crore has been done against the projected additional capitalisation of Rs. 3.74 Crore. Major expenditure against the proposed additional capitalisation claimed for FY 2023-24 is yet to be incurred. Accordingly, the Commission is of the view that the additional capitalisation shall be allowed at the time of truing-up of FY 2023-24 based on the actual expenditure and after carrying out prudence check of the same and give effect on this account in the AFC of FY 2025-26. Further, the Petitioner is directed to submit independent agency report for the capitalisation describing the necessity of the work. The Petitioner is cautioned to keep the additional capitalisation within the ambit of the original Project Scope and any capitalisation which is not within the original project scope of work will be disallowed by the Commission.

Further, the Commission directs the Petitioner to give prior information to the licensee before incurring **any major capital expenditure or any major repair & maintenance in its plant and the licensee will be at liberty to physically verify the claims of the Petitioner so as to avoid any dispute in future regarding the claims of the Petitioner. The Petitioner is also directed to maintain documentary evidence in the form of photographs of the site (prior execution of work and post execution of work) etc. in support of works to be executed and submit the same to the Commission at the time of truing up of respective years.**

The Petitioner has submitted that the proposed additional capitalisation for FY 2023-24 shall be financed by way of equity/internal resources. However, as discussed in the above para, the Commission has not considered any additional capitalisation for FY 2023-24.

With regard to O&M expenses for FY 2022-23, Regulation 48(2) of the UERC Tariff Regulations, 2021 specifies as follows:

"48 Operation and Maintenance Expenses

...

(2) For Hydro Generating Stations

(g) ***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.

(h) ***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 2020-21, the operation and maintenance expenses for the base year of FY 2020-21 shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively, for the first year of operation and shall be escalated from the subsequent year in accordance with the escalation principles specified in clause (e) below.

(i) ***For Generating Stations declared under commercial operation on or after 1.4.2022.***

…

(j) Post determination of base O&M Expenses for the base year, i.e. FY 2020-21, the O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. 2021-22 shall be approved based on the formula given below:-

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

Where –

- *O&Mn – Operation and Maintenance expenses for the nth year;*

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

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

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

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

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

Where -

- *EMPn-1 – Employee Costs for the (n-1)th year;*
- *A&G n-1 – Administrative and General Costs for the (n-1)th year;*
- *Provision: Cost for initiatives or other one-time expenses as proposed by the Generating Company and approved by the Commission after prudence check.*
- *'K' is a constant to be specified by the Commission %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on Generating Company's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*

  Provided that for the projects whose Renovation and Modernisation has been carried out, the R&M expenses for the nth year shall not exceed 4% of the capital cost admitted by the Commission.
- *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 and it can be greater than or less than zero based on the actual performance. Value of Gn shall be determined by the Commission in the MYT tariff*

order for meeting the additional manpower requirement based on Generating Company's filings, benchmarking and any other factor that the Commission feels appropriate

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

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

(k) …

(l) …"

As per Regulation 48(2)(a) read with Regulation 48(2)(d) of UERC Tariff Regulations, 2021, if the hydro generating power plant is in operation for more than five years preceding the base year, i.e. FY 2020-21, normative O&M expenses for the first year of the control period will be approved by the Commission taking into account the actual O&M expenses for last five years till base year based on the formula specified for determination of normative O&M expenses for the fourth Control Period. In the present case, the Budhil hydro power plant came under the jurisdiction of this Commission from 01.12.2015 and the plant has completed its five years of operation in the regulatory regime. Therefore, normative O&M for the said Plant shall be determined in accordance with the provisions of Regulation 48(2)(d) of UREC Tariff Regulations, 2021 for FY 2023-24.

5. Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on ARR for FY 2024-25

5.1 Physical Parameters

5.1.1 *NAPAF*

Regulation 47(1)(b) of UERC Tariff Regulations, 2021 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."

Accordingly, the Commission is of the view that the NAPAF of 85% approved for the fourth Control Period in the Tariff Order dated 31.03.2022 shall continue to be applicable for FY 2024-25 without any change.

5.1.2 *Design Energy, Auxiliary Energy Consumption and Saleable Primary Energy*

The Petitioner in its Petition has projected energy generation from its 70 MW (2x35 MW) Hydro Electric power project in line with the energy generation approved by the Commission in its Tariff Order dated 31.03.2022 for FY 2024-25. Accordingly, the Commission approves the saleable primary energy of 236.43 MUs after deducting the normative auxiliary consumption of 1.20% and adjusting home State share, i.e. 12% for April, 2024 and 18% from May, 2024 onwards for FY 2024-25. The same shall be reviewed by the Commission at the time of truing up of FY 2024-25.

5.2 Financial Parameters

5.2.1 *Opening GFA and Additional Capitalisation for FY 2024-25*

The Petitioner has claimed the additional capitalization amounting to Rs. 7.33 Crore for FY 2024-25. Detail of the same is as follows:

Table 5.1: Projected Additional capitalisation claimed for FY 2024-25

S. No.	Particulars	Rs. in Crore	and justification of the work carried out /proposed to be carried out
1.	Protection work near Power House left bank of Ravi river	0.70	Budhil Power plant is in remote location and tribal area in Bharmour District Chamba of Himachal Pradesh. In FY2023-24 there were massive rains in Himachal Pradesh and particularly in Budhil river catchment area which caused flash floods on 8th, 9th & 10th of July. 2023. The road from Pathankot (Pb) to Bharmour has been damaged from many places and it is difficult for material transportation and man power movement during rainy season. There is no alternative road and this single road gets damaged/blocked due to rains. The construction material comes from Pathankot (Pb). The work cannot be done in FY 2023-24, and it can be spilled over to 2024-25. *Delay reason* Due to flash floods, left bank area of Ravi river along residential accommodation and approach road got eroded and will be unusable and unsafe in near future. Protection work is necessary to avoid further damages and interruption in power generation due to damage to approach road or non-availability of accommodation at site. Moreover, staff quarters are located at the left side of Ravi river. So, further slidings and damages will endanger the residential building and staff in future.
2.	Permanent staff accommodation at dam site	0.40	Budhil Power plant is located in remote location and tribal area Bharmour District Chamba of Himachal Pradesh. Massive rains occurred in Himachal Pradesh this year and particularly in Budhil river catchment area which caused flash floods on 8th, 9th & 10th of July. 2023. The road from Pathankot (Pb) to Bharmour is damaged from many places and it is difficult for material transportation and man power movement during rainy season. There is no alternative road and this single road with rains gets damaged /blocked. The construction material comes from Pathankot (Pb). The work cannot be done in 2023-24, it can be spilled over to 2024-25. *Delay reason* Dam is located in remote location and tribal area of HP. Due to rains and snow, roads often get closed and movement is very difficult. The staff associated with dam O&M activities required to be retained and available near to dam to avoid the incidents
3.	New turbine governor for unit -II (FY 2023-24) (old governor to be depreciated or refurbished)	1.50	This work is the replacement of old existing system with new system. A detailed study and engineering is required by the vendor design department, causing the delay in the submission of the budgetary offer. After submission of the new design by the vendor the verification will be done at the Greenko's end. The present governors are Chinese make and experiencing operational challenges and this is adversely impacting the generation due to outages. As this is older version, availability of spares is a challenge and getting timely services from OEM

Table 5.1: Projected Additional capitalisation claimed for FY 2024-25

S. No.	Particulars	Rs. in Crore	and justification of the work carried out /proposed to be carried out
			is a difficulty. For long life of governing system and smooth operation it is recommended to replace with new updated Indian version
4.	Providing canopy on Surge Shaft and Surge shaft Gate operating Hoist structures	0.30	Budhil Power plant is located in remote location and tribal area Bharmour District Chamba of Himachal Prades. This year there were massive rains in Himachal Pradesh and particularly in Budhil river catchment area which caused flash floods on 8th, 9th & 10th of July 2023. The road from Pathankot (Pb) to Bharmour is damaged from many places and it is difficult for material transportation and man power movement during rainy season. There is no alternative road and this single road with rains gets damaged/blocked. The construction material comes from Pathankot (Pb). The work cannot be done in 2023-24, it can be spilled over to 2024-25. Budhil power plant was commissioned in May 2012. The canopy over the surge shaft was not provided for since commissioning. Temporary mesh is kept over the surge shaft with wide opening. However, there are many instances where stones have fallen from hill top, due to rains/ snowfall, grazing by animals. There are chances that such stones may get stuck in the runner of the turbine. Also, the old canopy provided over the gate operating hoist was with old CGI sheet and scrap material. Due to rain and snow fall the rusting of this structure is very frequent. So, it is proposed to provide the Canopy with pre-painted sheets.
5.	Construction of Permanent panel room for Panel of Surge shaft gate at PH	0.05	Budhil Power plant is located in remote location and tribal area Bharmour District Chamba of Himachal Prades. This year there were massive rains in Himachal Pradesh and particularly in Budhil river catchment area which caused flash floods on 8th, 9th & 10th of July 2023. The road from Pathankot (Pb) to Bharmour is damaged from many places and it is difficult for material transportation and man power movement during rainy season. There is no alternative road and this single road with rains gets damaged/blocked. The construction material comes from Pathankot (Pb). The work cannot be done in 2023-24, it can be spilled over to 2024-25. *Delay* Existing panels are kept either in temporary CGI sheets sheds/in open. Due to underground structure and excess humidity, there is lot of moisture ingress. To maintain healthy environment and protection of electrical and hydraulic operated panels and equipment's permanent switchgear room is required and the same is proposed to be constructed.
6.	Construction of single room workers and supervisors	1.50	Budhil Power plant is located in remote location and tribal area Bharmour District Chamba of Himachal Prades. This year there were massive rains in Himachal Pradesh and

Table 5.1: Projected Additional capitalisation claimed for FY 2024-25

S. No.	Particulars	Rs. in Crore	and justification of the work carried out /proposed to be carried out
	accommodation at PH		particularly in Budhil river catchment area which caused flash floods on 8th, 9th & 10th of July 2023. The road from Pathankot (Pb) to Bharmour is damaged from many places and it is difficult for material transportation and man power movement during rainy season. There is no alternative road and this single road with rains gets damaged/blocked. The construction material comes from Pathankot (Pb). The work cannot be done in 2023-24, it can be spilled over to 2024-25. *Delay reason* Powerhouse is in remote location and tribal area of HP. During rains and snowy seasons, roads often get closed and movement is very difficult. The staff associated with power house O&M activities is required to be retained and available near to power house to avoid the incidents.
7.	Establishment of dam SCADA system & interfacing with Budhil PH with main SCADA	1.30	This work is the replacement of old existing system with new system. So detailed study and engineering is required by the vendor design department, causing the delay in the submission of the budgetary offer. After submission of the new design by the vendor the verification will be done at the Greenko's end. The operation of Dam gate is done manually & its status is not visible in Dam & Power House control room. Moreover, in case of emergency the operator has to operate gates in local manual mode. Hence to give greater visibility and control on operations, it is proposed to establish dam SCADA system.
8.	Construction of main Store near workshop at PH	0.30	Budhil Power plant is located in remote location and tribal area of Bharmour District Chamba of Himachal Pradesh. This year there were massive rains in Himachal Pradesh and particularly in Budhil river catchment area which caused flash floods on 8th, 9th & 10th of July 2023. The road from Pathankot (Pb) to Bharmour is damaged from many places and it is difficult for material transportation and man power movement during rainy season. There is no alternative road and this single road with rains gets damaged/blocked. The construction material comes from Pathankot (Pb). The work cannot be done in 2023-24, it can be spilled over to 2024-25. The Main store Outside Power house near workshop is temporary structure made by angle and CGI sheet. This Store was constructed during construction stage for storing construction material. After commissioning same store was used for storing the spare parts of the Power House. Presently the side sheet was damaged at many places. The E&M spares are costly so the new store is required to give a safe storage space for the spares.
9.	Air Dryer for HP compressor	0.10	The air dryer installed with HP compressor is Old model and hence, the spare for the existing models are not available.
10.	Spare Seal Ring (Fixed	0.30	No Spare Seal Ring (Fixed & Moveable) of MIV Seal is

Table 5.1: Projected Additional capitalisation claimed for FY 2024-25

S. No.	Particulars	Rs. in Crore	and justification of the work carried out /proposed to be carried out
	& Moveable) of MIV Seal - 2 set		available at site. Since MIV is Chinese make so it is to be fabricated at India by local vendors.
11.	Air Dryer for LP compressor	0.10	The air dryer installed with LP compressor is Old model and hence, the spare for the existing models are not available.
12.	Providing Permanent kotta stone flooring at workshop	0.10	The existing flooring is not dust proof as per the requirements. Lot of dust is entering in main Machines and control Panels. To make the dust free environment in workshop permanent flooring is required.
13.	Supply and Erection of RIBS and backfilling with concrete at the Junction of Penstock Tunnel with MAT.	0.30	The Main access Tunnel (MAT) is the entrance to the power house. At the junction of the Penstock Tunnel with MAT the rock falling is very often. No protection work is done during the construction stage. For the safety of the employees the protection work at the Junction point with RIBS is to be provided.
14.	Construction of DG room for Standby DG at PH	0.08	No DG room is available for Spare DG set. Permanent DG room to keep DG set and operating panel/distribution panel is required.
15.	Steel Lining of vertical shaft 2 no's of 18 mtrs depth used for SFT gate 1 & 2 cavern	0.30	The Silt Flushing Gate Cavern is 18 mtrs below the DAM GOC. The Vertical Shaft of 2 mtrs dia of 18 mts depth is excavated to reach the Silt flushing Gate Cavern. The vertical shaft is unfinished. There is chance of small stone falling on the maintenance staff while going down for gate maintenance work, so steel Lining in the vertical shaft is required for the safety of the employees.
	Total	**7.33**	

In the matter, as discussed above in this Order the Commission has decided to consider the additional capitalisation at the time of truing up of FY 2024-25 based on the audited accounts and as per prevailing Regulations as amended from time to time. Accordingly, proposed additional capitalisation for FY 2024-25 has been considered as nil, however, the same shall be reviewed at the time of truing up.

Therefore, GFA approved as on 31.03.2023 has been considered as opening GFA for FY 2024-25. Further, the same shall be reviewed at the time of truing up based on the audited annual accounts.

5.2.2 *Capital Structure*

The Petitioner submitted that the capital expenditure to be incurred in FY 2024-25 is to be financed by equity/internal sources. As mentioned above, the Commission has not considered the additional capitalisation for FY 2024-25. However, based on the actual admissible additional capitalization and actual financing, truing up will be done for the purpose of determination of Tariff.

5.2.3 *Depreciation*

Regulation 28 of the UERC Tariff Regulations, 2021 specifies as follows:

"28. Depreciation

(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

Provided that 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 has claimed depreciation for FY 2024-25 based on the opening GFA and projected additional capitalisation. As mentioned earlier, the Commission has not considered the proposed additional capitalisation for FY 2024-25 and the same, if any, shall be approved at the time of truing up after prudence check. Accordingly, the Commission has determined the depreciation based on the admissible GFA for FY 2024-25. Details of the depreciation claimed and approved for FY 2024-25 is as under:

Table 5.2: Depreciation for FY 2024-25 (Rs. Crore)

Particular	Approved in MYT Order dated 31.03.2022	Claimed	Approved
Depreciation	26.77	27.20	27.06

5.2.4 *Return on Equity*

Regulation 26 of the UERC Tariff Regulations, 2021 specifies as follows:

"26. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 24.

Provided that, Return on Equity shall be allowed on account of allowed equity capital for the assets put to use at the commencement of each financial year.

Provided further that, if the generating stations/licensees are able to demonstrate the actual date of asset being put to use and capitalized in its accounts of each asset for the purposes of business carried on by it through documentary evidence, including but not limited to 'asset put to use certificate', 'audited accounts' etc., then in such cases, after due satisfaction of the Commission, the RoE shall be allowed on pro-rata basis after considering additional capitalization done during the year out of the equity capital.

(2) Return on equity shall be computed on at the base rate of 15.50% 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 claimed return on equity of Rs. 26.93 Crore for FY 2024-25 considering the proposed additional capitalisation. As discussed earlier, the additional capitalisation will be approved based on the actual expenditure at the time of truing up of FY 2024-25. Accordingly, the Commission has worked out the Return on Equity based on the opening equity of FY 2024-25. Details of the Return on Equity claimed and approved is as follows:

Table 5.3 : Return on Equity claimed by the Petitioner and approved by the Commission for FY 2024-25 (Rs. in Crore)

Particular	Approved in Tariff Order dated 31.03.2022	Claimed by Petitioner	Approved after truing up
(A) Equity within Original Scope of Work			
Opening Equity	159.96	163.19	151.88
Net Addition during the year	0.00	2.20	0.00
Closing Equity	159.96	165.29	151.88
Rate of Return on Equity	16.50%	16.50%	16.50%
Return on Equity	**26.39**	**27.29**	**25.06**
(B) Equity beyond Original Scope of Work			
Opening Equity	-	-	10.17
Net Addition during the year	-	-	0.00
Closing Equity	-	-	10.17
Rate of Return on Equity	-	-	9.30%
Return on Equity	**-**	**-**	**0.95**
Total RoE (A)+ (B)	**26.39**	**27.29**	**26.01**

5.2.5 *Interest on Loans*

Regulation 27 of the UERC Tariff Regulations, 2021 specifies as follows:

*"**27. Interest and finance charges on loan capital and on Security Deposit***

(1) The loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2022 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2022 from the gross normative loan.

(3) The repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year…

...

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year after providing appropriate accounting adjustment for interest capitalised:

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

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

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

…"

The Petitioner has claimed interest on normative loan of Rs. 6.51 for FY 2024-25 considering the normative debt equivalent to 70% of the proposed additional capitalisation for the year. Further, repayment has been considered equivalent to the depreciation claimed by the Petitioner. Furthermore, the Petitioner has considered the interest rate of 9.30% p.a. of the non-convertible debentures.

The Commission has considered the closing net normative loan of Rs. 103.71 Crore for FY

2022-23 as opening normative loan for FY 2023-24 and depreciation of Rs. 27.06 Crore approved for FY 2023-24 as repayment of normative loan as per applicable UERC Tariff Regulations, 2021. Net closing normative loan for FY 2023-24 has been considered opening normative loan for FY 2024-25 and depreciation has been considered as repayment of loan for FY 2024-25 i.e. Rs. 27.06 Crore. Accordingly, closing normative loan works out to Rs. 49.59 Crore for FY 2024-25. Further, rate of interest of Nov-Convertible Debentures, i.e. 9.30% p.a. for FY 2024-25 as claimed by the Petitioner has been considered for the purpose of computation of interest on normative loan. Accordingly, the Commission approves interest on loan of Rs. 5.87 Crore for FY 2024-25 which shall be reviewed at the time of truing up of FY 2024-25. Details of the interest claimed and allowed for FY 2024-25 is given in the Table below:

Table 5.4: Interest on Normative Loan for FY 2024-25 (Rs. Crore)

Particular	Approved in MYT Order dated 31.03.2022	Claimed	Approved
Normative Interest	6.48	6.51	5.87

5.2.6 *Operation and Maintenance expenses*

With regard to Operation and Maintenance expenses, Regulation 48(2) of the UERC Tariff Regulations, 2021 specifies as follows:

"48 Operation and Maintenance Expenses

...

(2) For Hydro Generating Stations

(m) ***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.

(n) ***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 2020-21, the operation and maintenance expenses for the base year of FY 2020-21 shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Commission, for stations less than 200

MW projects and for stations more than 200 MW respectively, for the first year of operation and shall be escalated from the subsequent year in accordance with the escalation principles specified in clause (e) below.

(o) ***For Generating Stations declared under commercial operation on or after 1.4.2022.***

…

(p) Post determination of base O&M Expenses for the base year, i.e. FY 2020-21, the O&M expenses for the nth year and also for the year immediately preceding the Control Period, i.e. 2021-22 shall be approved based on the formula given below:-

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

Where –

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

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

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

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

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

Where -

- *EMPn-1 – Employee Costs for the (n-1)th year;*
- *A&G n-1 – Administrative and General Costs for the (n-1)th year;*
- *Provision: Cost for initiatives or other one-time expenses as proposed by the Generating Company and approved by the Commission after prudence check.*
- *'K' is a constant to be specified by the Commission %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on Generating Company's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other*

factor considered appropriate by the Commission;

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

- *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 and it can be greater than or less than zero based on the actual performance. Value of Gn shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on Generating Company's filings, benchmarking and any other factor that the Commission feels appropriate*

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

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

(q) …

(r) …"

As per Regulation 48(2)(a) read with Regulation 48(2)(d) of UERC Tariff Regulations, 2021, if the hydro generating power plant is in operation for more than five years preceding the base year, i.e. FY 2020-21, normative O&M expenses for the first year of the control period will be approved by the Commission taking into account the actual O&M expenses for last five years till base year based on the formula specified for determination of normative O&M expenses for the fourth Control Period. In the present case, the Budhil hydro power plant came under the jurisdiction of this Commission from 01.12.2015 and the plant has completed its five years of operation in the regulatory regime. Therefore, normative O&M expenses for the said Plant shall be determined in accordance with the provisions of Regulation 48(2)(d) of UREC Tariff Regulations, 2021 for FY 2024-25.

The O&M expenses includes Employee expenses, R&M expenses and A&G expenses. In accordance with Regulation 48(2)(d) of the UERC Tariff Regulations, 2021, the O&M expenses for the first year of the Control Period shall be determined by the Commission taking into account actual O&M expenses of the previous years and any other factors considered appropriate by the Commission. The submissions of the Petitioner and the Commission's analysis on the O&M expenses for FY 2024-25 is detailed below.

5.2.6.1 Employee expenses

The Petitioner submitted that the proposed employee expenses for FY 2024-25 are Rs. 9.57 Crore. The Commission has followed the same methodology as specified in UERC Tariff Regulations, 2021 and MYT Order Dated 31.03.2022 for the fourth Control Period.

The Commission has considered the details of employees submitted by the Petitioner and observed that proposed number of employees shall increase from 96 to 101 during FY 2024-25. Accordingly, Gn factor works out to 5.21%. The Commission has considered the same Gn factor. The opening gross employee expenses for FY 2023-24 have been adjusted for the Gn factor proposed by the Petitioner for FY 2023-24 and the same has been escalated with CPI Inflation to work out the gross employees for FY 2024-25. The gross employee expenses so arrived have been considered as the gross employee expenses (EMP_{n-1}) for FY 2024-25. The Commission has computed the normative employee expenses in accordance with the Regulation 62(3) considering the Gn factor approved for FY 2024-25 and the CPI inflation of 5.40% for FY 2024-25.

The Commission shall consider the actual Gn and capitalisation rate for FY 2023-24 and FY 2024-25 at the time of truing up of respective year. The normative employee expenses approved for FY 2024-25 is as shown in the Table below:

Table 5.5: Employee expenses approved by the Commission for FY 2024-25 (Rs. Crore)

Particulars	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
EMPn-1	7.00	-	8.10
Gn	0.00%	-	5.21%
CPI inflation	6.00%	-	5.40%
EMPn=(EMPn-1) x (1+Gn)x(1+CPIinflation)	**7.42**	**-**	**8.98**
Capitalisation rate	0.00%	-	0.00%
Less: Employee expenses capitalised	0.00	-	0.00
Net Employee expenses	**7.42**	**9.57**	**8.98**

5.2.6.1 *R&M expenses*

The Petitioner submitted that the R&M expenses for FY 2024-25 has been proposed as per the UERC Tariff Regulations, 2021. The Petitioner has considered the k factor of 0.98% for FY 2024-25 as approved by the Commission vide Tariff Order dated 31.03.2022 for the fourth Control Period. The Petitioner has claimed the R&M expenses of Rs. 5.74 Crore for FY 2024-25.

The Commission has determined the R&M expenses for FY 2024-25 in accordance with UERC Tariff Regulations, 2021. As per provisions of Regulation 48(2)(d) of UERC Tariff Regulations, 2021 'k' is a constant to be specified in percentage. Accordingly, the Commission has considered the 'k' factor, i.e. 0.98% as approved by the Commission vide Tariff Order dated 31.03.2022 for the fourth Control Period. The Commission has considered the opening GFA for FY 2024-25. The Commission has considered the WPI inflation of 7.90% which is the average increase in the Wholesale Price Index (WPI) for FY 2023-24. The R&M expenses for FY 2024-25 shall be trued up based on the actual approved opening GFA for FY 2024-25.

The R&M expenses approved by the Commission for FY 2024-25 is as shown in the Table below:

Table 5.6: R&M expenses approved by the Commission for FY 2024-25 (Rs. Crore)

Particulars	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
K	0.98%	-	0.98%
GFAn-1	533.15	-	540.14
WPI inflation	2.42%	-	7.90%
R&Mn = K x (GFAn-1) x (1+WPI inflation)	**5.37**	**5.74**	**5.73**

5.2.6.1 *A&G expenses*

The Petitioner submitted that the A&G expenses for FY 2024-25 has been determined by applying WPI inflation rate for FY 2024-25 on the normative A&G expenses for FY 2023-24. The Petitioner submitted that the normative A&G expenses works out to Rs. 5.73 Crore for FY 2024-25.

The Commission has followed the same methodology as specified in UERC Tariff Regulations, 2021 and Tariff Order dated 31.03.2022 for the fourth Control Period from FY 2022-23 to FY 2024-25.

A&Gn for FY 2023-24 has been computed considering WPI inflation index of 7.90%. Further, the Petitioner submitted that no A&G expenses have been capitalised. Accordingly, the A&Gn for FY 2023-24 has been further escalated with WPI inflation index of 7.90% to work out allowable normative A&G expenses for FY 2024-25.

The normative A&G expenses approved by the Commission for FY 2024-25 is as shown in the Table below:

Table 5.7: A&G expenses approved by the Commission for FY 2024-25 (Rs. Crore)

Particulars	Approved in Tariff Order 31.03.2022	Claimed	Approved
A&Gn-1	4.69	-	5.08
WPI inflation	2.42%	-	7.90%
A&Gn=A&Gn-1 x (1+WPI inflation)	**4.80**	**-**	**5.48**
Capitalisation rate	-	-	-
Capitalised A&G expenses	-	-	-
Net A&G expenses	**4.80**	**-**	**5.48**
License Fee	0.11	-	0.11
Total A&G expenses	**4.91**	**5.73**	**5.59**

5.2.6.1 *O&M expenses*

The O&M expenses approved by the Commission for FY 2024-25 is as shown in the Table below:

Table 5.8: O&M expenses approved by the Commission for FY 2024-25 (Rs. Crore)

Particulars	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
Employee expenses	7.42	9.57	8.98
R&M expenses	5.37	5.74	5.73
A&G expenses	4.91	5.73	5.59
Total O&M expenses	**17.70**	**21.04**	**20.30**

The Commission would like to advise the Petitioner to exercise proper caution and prudence while incurring the O&M expenses as the same are controllable in nature. The Petitioner should ensure to restrict the actual O&M expenses within the norms allowed by the Commission.

5.2.7 *Interest on Working Capital*

The Petitioner has submitted that the interest on working capital for FY 2024-25 has been proposed in accordance with Regulation 33 of UERC Tariff Regulations, 2021.

Regulation 33 of UERC Tariff Regulations, 2021 specifies as follows:

"Rate of interest on working capital shall be on normative basis and shall be equal to the weighted average of 'one year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India from time to time for the financial year in which the application for determination of tariff is made plus 350 basis points

...

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 Aggregate Revenue Requirement"

The Petitioner has considered interest on working capital @ 12.05%. The aforesaid Regulations specifies that rate of interest on working capital shall be normative and equal to the weighted average rate of one year MCLR as declared by SBI for the year in which application for determination of tariff is made plus 350 points. Accordingly, the weighted average rate of MCLR works out to 7.80% and adding 350 points, rate of interest on working capital works out to 11.30% p.a. Accordingly, the Commission has considered interest rate of 11.30% p.a. for working out the IWC. However, the same shall be reviewed at the time of truing up of FY 2024-25. The Commission has determined the interest on working capital for FY 2024-25 in accordance with the aforesaid Regulations and is as discussed below:

5.2.7.1 One Month O&M Expenses

The Commission has approved the annual O&M expense for FY 2024-25. Based on the approved O&M expenses, one month's O&M expenses have been worked out for determining the working capital requirement.

5.2.7.2 ***Maintenance Spares***

The Commission has considered the maintenance spares in accordance with UERC Tariff Regulations, 2021. The Commission has determined the plant wise maintenance spares requirement @ 15% of normative O&M Expenses worked out for FY 2024-25.

5.2.7.3 Receivables

UERC Tariff Regulations, 2021 envisage receivables equivalent to two months of annual fixed charges as an allowable component of working capital. Aggregate Revenue Requirement (AFC) 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 AFC for FY 2024-25.

Based on the above discussion, the interest on working capital works out to Rs. 2.06 Crore for FY 2024-25. The interest on working capital claimed by the Petitioner and approved by the Commission is as shown in the Table below:

Table 5.9: Interest on working capital claimed and approved by the Commission for FY 2024-25 (Rs. Crore)

Particulars	Approved in Tariff Order dated 31.03.2022	Claimed	Approved
O&M Expenses	1.48	1.59	1.69
Maintenance spare	2.66	2.87	3.05
Receivables	13.20	13.01	13.55
Total	**17.33**	**17.47**	**18.29**
Rate of Interest	10.50%	12.05%	11.30%
IWC	**1.82**	**2.11**	**2.06**

5.2.8 *Non-Tariff Income*

Regulation 46 of UERC Tariff Regulations, 2021 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 not projected any non-tariff income for FY 2024-25. Accordingly, the Commission has also not considered any non-tariff income. However, the same is subject to correction during the truing up proceedings.

5.2.9 *Annual Fixed Charges, Capacity Charge and Energy Charge Rate (ECR) for FY 2024-25*

Based on the above analysis for all the heads of expenses of AFC, the Commission has approved the Annual Fixed Charges (AFC) of the Petitioner for FY 2024-25 attributable to its beneficiary.

Regulation 50 of UERC Tariff Regulations, 2021 specifies 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$= 10000\ x \sum_{i=1}^{N} DCi/\{N\ x\ \ IC\ x\ (100 - Aux)\}\%$

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) for FY 2024-25 as claimed and approved by the Commission is shown in the Table below:

Table 5.10: Annual Fixed Charges approved by the Commission for FY 2024-25 (Rs. in Crore)

Annual Fixed Charges	Approved in Tariff Order dated 31.03.2022	Claimed*	Approved
Depreciation	26.77	27.20	27.06
Interest on Loan	6.48	6.51	5.87
Return on Equity	26.39	26.93	26.01
O&M Expenses	17.70	21.04	20.30
Interest on Working Capital	1.82	2.11	2.06
Less: Non-Tariff Income	0.00	0.00	0.00
Net Annual Fixed Charges	**79.17**	**83.78**	**81.30**

**as per submission dated 08.02.2024*

The summary of Capacity Charge and Energy Charge Rate (ECR) for the Petitioner's project for FY 2024-25 is as given in the Table below:

Table 5.11: Capacity Charge and Energy Charge Rate approved by the Commission for FY 2024-25

Particular	Rs. in Crore
Net AFC (Rs. Crore)	81.30
Saleable Energy (MU)	236.43
Capacity Charges (Rs. Crore) (50% of AFC)	40.65
Energy Charges (Rs./kWh) (50% of AFC)	1.719

In accordance with the provisions of the Regulations, the secondary energy rate shall be equal to the rate derived based on the saleable energy subject to a cap of 90 paise per unit and shall be applicable when actual saleable energy exceeds the Saleable Energy (DE-(100-Auxiliary Consumption)-FS).

(M.L. Prasad)
Member (Technical)

(D.P. Gairola)
Member (Law)/ Chairman (I/c)