

Order

On

**True up for FY 2019-20,
Annual Performance Review
for FY 2020-21**

&

ARR for FY 2021-22

For

M/s Gama Infraprop Pvt. Ltd.

April 26, 2021

Uttarakhand Electricity Regulatory Commission

Vidyut Niyamak Bhawan, Near I.S.B.T., P.O. Majra

Dehradun - 248171

Table of Contents

1	Background and Procedural History	4
2	Petitioner’s Submissions, Commission’s Analysis, Scrutiny and Conclusion on Truing up for FY 2019-20.....	6
2.1	Impact of Sharing of Gains and Losses on account of Controllable Factors for FY 2019-20.....	7
2.1.1	Physical Parameters	8
2.1.1.1	NAPAF.....	8
2.1.1.2	Energy Generation and Saleable Primary Energy	8
2.1.2	Financial Parameters	9
2.1.2.1	Capital Cost.....	9
2.1.2.2	Additional Capitalisation and De-capitalisation	10
2.1.2.3	Capital Structure	11
2.1.2.4	Depreciation.....	12
2.1.2.5	Return on Equity (RoE)	13
2.1.2.6	Interest and Finance charges	14
2.1.2.7	Operation & Maintenance (O&M) Expenses.....	16
2.1.2.7.1	Truing up of O&M Expenses for FY 2019-20.....	16
2.1.2.8	Interest on Working Capital	18
2.1.2.9	Non-Tariff Income	21
2.1.2.10	Annual Fixed Charges (AFC) for FY 2019-20.....	22
2.1.2.10.1	Capacity Charge and Energy Charge Rate (ECR) for FY 2019-20.....	22
3	Petitioner’s Submissions, Commission’s Analysis, Scrutiny and Conclusion on APR for FY 2020-21	29
3.1	Annual Performance Review	29
4	Petitioner’s Submissions, Commission’s Analysis, Scrutiny and Conclusion on ARR for FY 2021-22	31
4.1	Physical Parameters	31

4.1.1	NAPAF.....	31
4.1.2	Design Energy, Auxiliary Energy Consumption and Saleable Primary Energy ...	31
4.2	Financial Parameters.....	31
4.2.1	Capital Cost and Additional Capitalisation for FY 2021-22.....	31
4.2.1.1	Capital Structure	33
4.2.2	Depreciation.....	34
4.2.3	Return on Equity	34
4.2.4	Interest on Loans	35
4.2.5	Operation & Maintenance (O&M) Expenses.....	36
4.2.6	Interest on Working Capital	37
4.2.7	Non-Tariff Income	38
4.2.8	Annual Fixed Charges for FY 2021-22.....	39
4.2.9	Annual Fixed Charges/Capacity Charge and Energy Charge Rate (ECR) for FY 2021-22.....	39

List of Tables

Table 2.1: Approved Gross Fixed Assets for FY 2019-20 (Rs. Crore)	11
Table 2.2: Financing for capitalisation for FY 2019-20	12
Table 2.3: Depreciation approved for FY 2019-20 (Rs. Crore).....	13
Table 2.4: Return on Equity approved for FY 2019-20 (Rs. Crore)	14
Table 2.5: Interest on Normative Loan for FY 2019-20 (Rs. Crore).....	16
Table 2.6: O&M Expenses Approved After Sharing of Gains and Losses for FY 2019-20 (Rs. Crore) ...	18
Table 2.7: Annual Fixed Charges for FY 2019-20 approved by the Commission (Rs. Crore).....	22
Table 2.8: True-up of Energy Charges for FY 2019-20 approved by the Commission	27
Table 4.1: Approved Gross Fixed Assets for FY 2021-22 (Rs. Crore)	32
Table 4.2: Capital Structure for FY 2021-22	33
Table 4.3: Claimed and Approved Depreciation for FY 2021-22 (Rs. Crore).....	34
Table 4.4: Claimed and Approved RoE for FY 2021-22 (Rs. Crore)	35
Table 4.5: Interest on Normative Loan Claimed and Approved for FY 2021-22 (Rs. Crore).....	36
Table 4.6: Annual Fixed Charges for FY 2021-22 approved by the Commission.....	39

Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No: 12 of 2021

In the Matter of:

Petition filed by M/s Gama Infraprop Private Limited for True up for FY 2019-20, Annual Performance Review for FY 2020-21 and Revised Annual Revenue Requirement for FY 2021-22.

In the Matter of:

M/s Gama Infraprop Pvt. Ltd.
M-3 (First Floor), Hauz Khas,
Aurobindo Marg, New Delhi- 110016

...Petitioner

AND

In the Matter of:

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

...Respondent

Coram

Shri D.P. Gairola Member (Law)

Shri M.K. Jain Member (Technical)

Date of Order: April 26, 2021

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

In accordance with the relevant provisions of the Act, the Commission had notified Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff)

Regulations, 2011 for the first Control Period from FY 2013-14 to FY 2015-16 and Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015 (hereinafter referred to as “UERC Tariff Regulations, 2015”) for the second Control Period from FY 2016-17 to FY 2018-19 specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC. The Commission had issued the Order on approval of Business Plan and Multi Year Tariff dated 16.05.2017 from COD, i.e. 16.03.2016 to 31.03.2016 and for the second Control Period from FY 2016-17 to FY 2018-19. In accordance with the provisions of the UERC Tariff Regulations, 2015, the Commission had carried out the Annual Performance Review (APR) for FY 2017-18 and FY 2018-19 vide its Orders dated 21.03.2018 and 27.02.2019.

Further, in accordance with the relevant provisions of the Act, the Commission had notified the Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2018 (hereinafter referred to as “UERC Tariff Regulations, 2018”) for the third Control Period from FY 2019-20 to FY 2021-22 specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC. The Commission had issued the Order on approval of Business Plan and Multi Year Tariff dated 27.02.2019 for the third Control Period from FY 2019-20 to FY 2021-22. Subsequently, the Commission had carried out the Annual Performance Review (APR) for FY 2019-20 vide its Order dated 18.04.2020. As per the provisions of Regulation 12 of the UERC Tariff Regulations, 2018, M/s Gama Infraprop Pvt. Ltd. (hereinafter referred to as “M/s GIPL” or “the Petitioner” or “the Generator”) filed the Petition (Petition No. 12 of 2021 and hereinafter referred to as “Petition”), giving details of its revised projections of Aggregate Revenue Requirement (ARR) for FY 2021-22, based on the true up for FY 2019-20 and APR for FY 2020-21 on 01.12.2020.

It was observed from the Petition filed by M/s GIPL that the Petition had certain infirmities/deficiencies which were informed to the Petitioner vide Commission’s letter no. UERC/6/TF-603/2020-21/2020/1015 dated 11.12.2020 and the Petitioner was directed to rectify the said infirmities in the Petition and submit certain additional information necessary for admission of the Petition. M/s GIPL vide its letter no. GIPL/UPCL/TRUE-UP/02/2021 dated 15.01.2021 removed the critical deficiencies. Based on the submission dated 15.01.2021 made by M/s GIPL, the Commission provisionally admitted the Petition for further processing subject to the condition that M/s GIPL 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.

This Order, accordingly, relates to the Petition filed by M/s GIPL for true up for FY 2019-20, APR for FY 2020-21 and revised ARR for FY 2021-22 and is based on the Petition as well as all the subsequent submissions made by M/s GIPL during the course of the proceedings and the relevant findings contained in the Tariff Order dated 27.02.2019 and Tariff Order dated 18.04.2020.

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 ARR of M/s GIPL is recoverable from the beneficiary, i.e. UPCL. It is the endeavour of the Commission, to issue Tariff Orders for M/s GIPL concurrently with the issue of Order on retail tariffs for UPCL, so that UPCL is able to honour the payment liability towards generation charges of M/s GIPL. For the sake of convenience and clarity, this Order has further been divided into following Chapters:

- | | |
|-------------|--|
| Chapter 1 - | Background and Procedural History |
| Chapter 2 - | Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2019-20 |
| Chapter 3- | Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2020-21 |
| Chapter 4- | Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on ARR for FY 2021-22 |

1 Background and Procedural History

M/s GIPL is a company incorporated under the Companies Act, 1956. M/s GIPL is a generating company falling within the definition under sub-section 28 of Section 2 of the Act and has developed a 214 MW gas based CCPP comprising of two gas turbine generator (GTG), each having a gross output of about 71 MW at site conditions, two heat recovery steam generators (HRSG) and one common steam turbine generator (STG) of about 72 MW capacity.

The name plate capacity of the gas-based Power Station is 225 MW (ISO condition) which comprises of two GTGs, each having a gross output of about 76 MW, and one common steam turbine generator (STG) of about 73 MW. However, at site conditions the power plant will have a gross capacity of 214 MW. The Project is designed to use natural gas/Re-Gasified Liquefied Natural Gas (R-LNG) as the main fuels for power generation.

The Petitioner due to shortage of gas fuel allocation could not commission its plant which remained stranded for considerable duration until the Scheme for utilization of gas based power generation capacity was implemented by the Ministry of Power, Government of India vide OM No. 4/2/2015 - Th-1 dated 27.03.2015 (the "Scheme"). Subsequently, Power System Development Fund Support Agreement (PSDF Support Agreement) dated 18.09.2015 was signed between Government of India and the Petitioner and other agreements were executed pursuant to the requirements under the scheme.

The Petitioner had executed a PPA for 107 MW capacity with the State licensee, i.e. UPCL and had initiated commercial operation of one gas turbine and one steam turbine w.e.f. 16.03.2016. The Petitioner had filed a Petition for determination of tariff for supply of power from its 214 MW Gas based Kashipur Combined Cycle Power Plant (hereinafter referred to as "the Project") to UPCL from COD, i.e. 16.03.2016 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 16.05.2017 approved the Business Plan and Multi Year Tariff for M/s GIPL for contracted capacity from 16.03.2016 to 31.03.2016 and for the second Control Period from FY 2016-17 to FY 2018-19. The Commission, in the approval of Business Plan, approved the Capital Expenditure Plan, Capitalisation Plan, Human Resource Plan and Trajectory of the performance parameters and, in the approval of MYT, approved the ARR for each year of the 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 ARR 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.

In accordance with Regulation 12 of the UERC Tariff Regulations, 2018, 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 GIPL filed its Petition for APR for FY 2020-21 on 01.12.2020. Through the above Petition, M/s GIPL sought true up for FY 2019-20, APR for FY 2020-21 and ARR for FY 2021-22 based on the audited accounts for FY 2019-20. The Commission vide its letter no. UERC/6/TF-603/2020-21/2020/1015 dated 11.12.2020 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. M/s GIPL vide its letter no. GIPL/UERC/TRUE-UP/02/2021 dated 15.01.2021 removed the critical deficiencies. Based on the submission dated 15.01.2021 made by M/s GIPL, the Commission provisionally admitted the Petition. This Order, accordingly, relates to the Petition filed by M/s GIPL for true up for FY 2019-20, APR for FY 2020-21 and revised ARR for FY 2021-22 and is based on the Petition as well as all the subsequent submissions made by M/s GIPL during the course of the proceedings and the relevant findings contained in the Tariff Order dated 18.04.2020.

In order to provide transparency in the process of tariff determination and give UPCL an opportunity to submit their objections/suggestions/comments on the proposals of M/s Gama Infraprop Pvt. Ltd., the Commission sent the copies of the tariff proposals to UPCL vide letter No. UERC/6/TF-603/2020-21/2021/1254 dated 09.02.2021. However, the Commission has not received any objections/suggestions/comments from UPCL in this regard till the date of Order.

The submissions made by M/s GIPL 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 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2019-20

Regulation 12 of the UERC Tariff Regulations, 2018 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 2019-20 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 2019-20 alongwith the sharing of gains and losses.

2.1 Impact of Sharing of Gains and Losses on account of Controllable Factors for FY 2019-20

Regulation 14 of the UERC Tariff Regulations, 2018 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 UERC Tariff Regulations, 2018 requires a comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year and truing up of expenses and revenues subject to prudence check including pass through of impact of uncontrollable factors.

O&M expenses comprises of the major portion of AFC of M/s GIPL and are within the control of the Petitioner and, moreover, in accordance with UERC Tariff Regulations, 2018 these are controllable expenses. Similarly, in accordance with the UERC Tariff Regulations, 2018, the variation in working capital requirements is also a controllable factor. However, as discussed in previous Tariff Orders for the Petitioner, the interest on working capital (IWC) was not included in the annual fixed charges (AFC) allowable to the Petitioner based on the Petitioner's submission that it intended to forego the same in case UPCL does not charge rebate on their energy bills and make payments as specified by the Commission vide its Order dated 17.04.2017 read with provisions of PPA. Further, performance parameters namely, Station Heat Rate and Auxiliary Consumption are controllable factors and, accordingly, as discussed in subsequent paragraphs of this Tariff Order, the Commission has carried out the truing up of the same and sharing of loss or gain, as the case may be, in accordance with UERC Tariff Regulations, 2018.

M/s GIPL in the current Petition has requested the Commission to approve the interest amounting to Rs. 3.31 Crore paid to fuel supplier for supplying gas to the Petitioner's plant on account of delayed payment made by UPCL. Further, the Petitioner has also requested the Commission not to charge any carrying cost on over recovery on account of truing up of Energy Charge for FY 2019-

20 due to delayed payment by UPCL. The same has been dealt in the subsequent Paragraphs of this Order. Further, the capital related expenses like interest on loans, depreciation etc. has been treated as uncontrollable and, hence, no sharing of losses or gains for the same has been carried out.

Accordingly, the Commission has worked out the trued up (surplus)/gap of the Petitioner after sharing of gains and losses as per the provisions of UERC Tariff Regulations, 2018.

2.1.1 Physical Parameters

2.1.1.1 NAPAF

The Commission vide its Order dated 08.02.2016 on approval of PPA for the Petitioner's plant approved the NAPAF, in accordance with Regulation 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.”

The Commission in its Tariff Order dated 27.02.2019 had considered the NAPAF of 85% in accordance with the UERC Tariff Regulations, 2018 for the entire third Control Period. The Commission is of the view that the NAPAF of 85% approved for the third Control Period in Tariff Order dated 27.02.2019 shall continue to be applicable without any change for FY 2019-20.

2.1.1.2 Energy Generation and Saleable Primary Energy

The Commission in its Tariff Order dated 27.02.2019 on approval of Business Plan and Multi Year Tariff for the third Control Period from FY 2019-20 to FY 2021-22 had approved the Design Energy based on the contracted capacity of 107 MW. Further, in accordance with Regulation 47(4)(i) of the Tariff Regulations, 2018, auxiliary consumption of 2.50% has been considered. Accordingly, applying the NAPAF of 85% as specified in the Regulations and reducing the auxiliary power, the saleable energy works out as 776.80 MU for FY 2019-20. M/s GIPL has not sought any deviation in the approved saleable energy for FY 2019-20.

M/s GIPL submitted that the actual saleable energy for FY 2018-19 was 607.63 MU which in turn translates to a PLF of 66.31%. In this regard the Petitioner submitted that the Plant Availability

Factor, i.e. the period for which the plant was available for generation of power (irrespective of the actual generation), was 85% for FY 2019-20. However, during the year, the actual Gross Generation was 607.63 MUs and the Plant Load Factor which is determined based on the output was 66.31%. The Petitioner submitted that this was primarily due to restrictions imposed by Uttarakhand Power Corporation Ltd (UPCL) on power offtake by backing down/load restriction of generation, hence, the actual gross generation during FY 2019-20 was 607.63 MU. The Petitioner further submitted that if the loss of generation is considered then the PLF shall be at its normal level of 85%. The Commission analysed the submissions made by M/s GIPL in this regard and observed that based on the provisionally verified declared capacity by SLDC, the generator's plant availability was more than 85% during FY 2019-20. M/s GIPL has also not sought any deviation in the approved design energy for FY 2019-20. Accordingly, the Commission decides to maintain the design energy and saleable primary energy as considered in the MYT Order dated 27.02.2019 for the Petitioner's plant for FY 2019-20.

2.1.2 Financial Parameters

2.1.2.1 Capital Cost

Regulation 21(2) of UERC Tariff Regulations, 2018 specifies as under:

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

- a) The capital cost admitted by the Commission prior to 01.04.2019 duly trued up as on 01.04.2019;*
- 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 an opening GFA amounting to Rs. 401.06 Crore as on 01.04.2019. The Commission vide its Tariff Order dated 18.04.2020 had approved the opening GFA and net additional capitalisation amounting to Rs. 401.06 Crore and Rs. 0.01 Crore respectively for FY 2018-19 for the contracted capacity of 107 MW. Accordingly, the Commission has considered the approved closing GFA, i.e. Rs. 401.07 Crore (Rs. 401.06 Crore *plus* Rs. 0.01 Crore) for FY 2018-19 as opening GFA for the purpose of truing up for FY 2019-20.

2.1.2.2 Additional Capitalisation and De-capitalisation

Regulation 22(1) of UERC Tariff Regulations, 2018 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. “

Regulation 24(5) of UERC Tariff Regulations specifies as under:

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the matter specified in Regulation 22 and 23 of these Regulations.”

In its Petition, the Petitioner claimed an additional capitalisation of Rs. 0.016 Crore and Rs. 0.096 Crore pertaining to ‘Plant & Machinery’ and ‘Vehicle’ respectively in accordance with Regulation 22(2) of UERC Tariff Regulations, 2018. The Commission approves the additional capitalisation of Rs. 0.11 Crore as claimed by the Petitioner for the purpose of truing up of FY 2019-20 after prudence check.

Further, the Commission observed from the audited annual accounts for FY 2019-20 that there was a sale of old vehicle amounting to Rs. 0.05 Crore and transfer of components of Plant & Machinery of Rs. 4.73 Crore to ‘Store and Spares’. Further, the Commission also observed that sale of old vehicle has been considered as de-capitalisation by the Petitioner. However, no de-capitalisation has been

considered under the head of Plant & Machinery on account of transfer of asset to 'Store and Spare'. In the matter, the Petitioner submitted that the M/s GIPL has transferred a sum of Rs. 4.73 Crore from Plant & Machinery account to 'Store and Spares' being cost of additional spares which pertains to 2nd Unit of the Plant for which no PPA has been executed with UPCL. These spares would be utilised as and when required for 1st Unit for which PPA has been executed with UPCL. The purpose of the same is to have availability of spares for Unit-1.

In the matter, the Commission is of the view that the cost does not pertain to the contracted capacity and the Petitioner did not make any outright expense for procuring new equipment/spares. Accordingly, the Commission has not considered the transfer of equipments from Plant & Machinery to Store & Spares for the purpose of truing up for FY 2019-20. In the matter, the Commission directs the Petitioner to provide the details of these equipment/spares to the Commission whenever these are utilised in Unit-1.

Accordingly, based on the above discussion, the details of the trued-up capital cost for FY 2019-20 are as follows:

Table 2.1: Approved Gross Fixed Assets for FY 2019-20 (Rs. Crore)

Particulars	Opening GFA	Additional Capitalisation	De-capitalisation	Closing GFA
Land (Freehold Land)	6.76	0.00	0.00	6.76
Civil Works	29.10	0.00	0.00	29.10
Plant & Machinery	364.37	0.016	0.00	364.39
Furniture and Fixtures	0.21	0.00	0.00	0.21
Office Equipment & Others	0.09	0.00	0.00	0.09
Computers	0.03	0.00	0.00	0.03
Vehicles	0.50	0.096	0.05	0.54
Total	401.07	0.111	0.05	401.13

2.1.2.3 Capital Structure

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

"...

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 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 1.4.2019, Debt: Equity Ratio shall be as approved by the Commission in the previous Orders. “

The Petitioner has claimed the Debt-Equity Ratio of 81.24:18.76 as on 31.03.2019 as approved by the Commission vide its Tariff Order dated 18.04.2020 while carrying out the truing up for FY 2018-19. The Commission has considered the same Debt-Equity Ratio for the GFA as on 01.04.2019.

Further, with regard to the additional capitalisation claimed for FY 2019-20, the Petitioner submitted that the expenses for the procurement of assets were funded from equity only. Further, with regard to de-capitalisation, the Petitioner submitted that the vehicle was procured at the time of date of commissioning of Plant. Accordingly, the Commission has considered the financing of additional capitalisation incurred for FY 2019-20 in the ratio of 70:30 in accordance with the UERC Tariff Regulations, 2018 and for the purpose of de-capitalisation, the Commission has considered the Debt-Equity ratio as approved by the Commission as on CoD vide Order dated 16.05.2017, i.e. 80.64:19.36. Capital structure for the GFA and additional capitalisation is as follows:

Table 2.2: Financing for capitalisation for FY 2019-20

Particular	Opening Capital Structure as on 01.04.2019		Addition during year		De-Capitalisation		Closing Capital Structure as on 31.03.2020	
	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%
Debt	325.821	81.24	0.078	70.00	-0.04	80.64	325.855	81.24
Equity	75.248	18.76	0.033	30.00	-0.01	19.36	75.271	18.76
Total	401.069	100.00	0.111	100.00	-0.05	100.00	401.126	100.00

2.1.2.4 Depreciation

Regulation 28 of the UERC Tariff Regulations, 2018 specifies as follows:

“28. Depreciation

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

Provided that depreciation shall not be allowed on assets funded through Consumer Contribution and Capital Subsidies/Grants.

(2) *The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.*

...

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

..."

The Petitioner has claimed depreciation of Rs. 20.29 Crore for FY 2019-20 considering the depreciation rates specified by the Commission in its UERC Tariff Regulations, 2018. The Commission has calculated the weighted average rate of depreciation of 5.06% by applying the depreciation rates as specified in Appendix-II of UERC Tariff Regulations, 2018. Further, the Commission has worked out the depreciation of Rs. 20.28 Crore on the admissible average GFA of Rs. 401.10 Crore for FY 2019-20 by applying the weighted average rate of depreciation of 5.06%.

Details of the depreciation, as approved in Tariff Order dated 27.02.2019, claimed by the Petitioner and trued up for FY 2019-20 is as follows:

Table 2.3: Depreciation approved for FY 2019-20 (Rs. Crore)

Particular	Approved in Tariff Order dated 27.02.2019	Claimed by Petitioner	Approved after truing up
Opening Capital Cost	401.06	401.06	401.07
Addition during year	0.00	0.12	0.11
Decapitalisation during year	0.00	(0.05)	(0.05)
Closing Capital Cost	401.06	401.12	401.13
Average Capital Cost	401.06	-	401.10
Weighted Average rate of Depreciation	5.06%	-	5.06%
Depreciation	20.28	20.29	20.28

2.1.2.5 Return on Equity (RoE)

Regulation 26 of the UERC Tariff Regulations, 2018 specifies as follows:

"26. Return on Equity

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

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

(2) Return on equity shall be computed on at the base rate of 15.50% 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 the Return on Equity amounting to Rs. 11.67 Crore for FY 2019-20. The Commission has allowed the Return on Equity on the opening equity base at the rate of 15.50%. The Return on Equity approved by the Commission for FY 2019-20 is given in the Table below:

Table 2.4: Return on Equity approved for FY 2019-20 (Rs. Crore)

Particular	Approved in Tariff Order dated 27.02.2019	Claimed by Petitioner	Approved after truing up
Opening Equity	75.23	75.23	75.25
Addition during the year	0.00	0.12	0.033
Decapitalisation	(0.00)	(0.00)	(0.01)
Closing Equity	75.23	75.35	75.26
Rate of Return on Equity	15.50%	15.50%	15.50%
Return on Equity	11.66	11.67	11.66

2.1.2.6 Interest and Finance charges

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

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

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

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

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

...

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

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available 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 claimed interest on normative loan of Rs. 32.01 Crore for FY 2019-20 for the purpose of truing up based on the weighted average rate of interest of 12.59% p.a. Further, the Petitioner has not considered any amount of addition to normative loan corresponding to additional capitalisation of Rs. 0.11 Crore and decapitalisation on account of sale of old vehicle for FY 2019-20.

The Commission examined the audited annual accounts & Trial Balance for FY 2019-20 as well as the submissions made by the Petitioner w.r.t. interest on loan and observed that the Petitioner had considered opening debt and closing debt amounting to Rs. 301.16 Crore and Rs. 270.99 Crore respectively in Form 9.2, i.e. “Calculation of Weighted Average Interest Rate of Interest on Actual Loans”, whereas as per audited accounts, opening and closing debt worked out to Rs. 304.63 Crore and Rs. 270.91 Crore respectively for FY 2019-20. With regard to variation in opening and closing debt for FY 2019-20, the Petitioner submitted that the variation is due to interest payable portion which has not been considered in Form 9.2 while computing the weighted average rate of interest.

The Petitioner submitted that the actual interest for FY 2019-20 is Rs. 36.01 Crore. The Commission observed that the total interest amounting to Rs. 42.01 Crore has been charged to the P&L Statement for FY 2019-20 out of which Rs. 36.01 Crore pertains to long term borrowings. Accordingly, the Commission has considered interest of Rs. 36.01 Crore only pertaining to long term borrowings for the purpose of calculation of weighted average rate of interest by the Petitioner. Based on the opening and closing debt of Rs. 304.63 Crore and Rs. 270.91 Crore respectively and considering the interest paid on long term borrowings during the year, the weighted average rate of interest works out to 12.37% p.a. for FY 2019-20.

The Commission has considered the net opening normative loan of Rs. 264.44 Crore and repayment has been considered equal to the admissible depreciation, i.e. Rs. 20.28 Crore. Further, as mentioned earlier under Para 2.1.2.3 of this Order, additional capitalisation for FY 2019-20 of Rs. 0.111 Crore has been considered in the ratio of 70:30 in accordance with the UERC Tariff Regulations, 2018 and de-capitalisation has been considered in the debt:equity ratio approved at the time of commissioning of the project, i.e. 80.64:19.36, accordingly, the Commission has considered net addition to normative debt amounting to Rs. 0.034 Crore whereas the Petitioner has not considered

any addition or deduction to the normative loan for the purpose of determination of interest on normative loan.

Further, the Petitioner has claimed Bank Charges amounting to Rs. 1.38 Crore for FY 2019-20 as finance charges. The Commission has gone through the detailed breakup of the bank charges and finds the same in order.

Based on the above, details of interest claimed and allowed for the truing up are given in the Table below:

Table 2.5: Interest on Normative Loan for FY 2019-20 (Rs. Crore)

Particular	Approved in Tariff Order dated 27.02.2019	Claimed by Petitioner	Approved after truing up
Gross Opening Normative Loan	325.82	325.82	325.82
Cumulative Repayment	61.38	61.37	61.38
Net Opening Normative Loan	264.44	264.45	264.44
Debt addition due to net Additional Capitalisation	0.00	0.00	0.034
Normative Repayment of loan	20.28	20.29	20.28
Net Closing Normative Loan	244.16	244.16	244.19
Average Normative Loan	254.30	254.31	254.32
Rate of Interest	12.20%	12.59%	12.37%
Normative Interest	31.02	32.01	31.47
Add: Finance charges	0.45	1.38	1.38
Total Interest and Finance Charges	31.47	33.39	32.85

2.1.2.7 Operation & Maintenance (O&M) Expenses

2.1.2.7.1 Truing up of O&M Expenses for FY 2019-20

Regulation 48(1) of UERC Tariff Regulations, 2018 as amended from time to time, specifies as follows:

“(1) Normative O&M Expenses for Open Cycle Gas Turbine/Combined Cycle generating stations shall be as under:

(In Rs. Lakh/MW)

Year	Gas Turbine/ Combined Cycle generating stations		Small gas turbine power generating stations (less than 50 MW Unit size)	Advance F class Machines
	With warranty spares for 10 years	Without warranty spares		
2018-19	11.22	16.82	20.41	34.56
2019-20	11.97	17.94	21.76	36.92
2020-21	12.76	19.13	23.21	39.44
2021-22	13.61	20.41	24.75	42.14

“

Based on the applicable norms of O&M expenses for combined cycle generating station, the Commission had approved the normative O&M expenses of Rs. 39.50 Crore for FY 2019-20 for the contracted capacity of the Petitioner's Plant. The Petitioner submitted that the actual O&M expense of Rs. 24.16 Crore has been incurred during FY 2019-20.

It is to be noted that the Commission approved the PPA for the contracted capacity of 107 MW with certain modifications vide its Order dated 08.02.2016. At present as far as the O&M expenses are concerned, the Commission is of the view that O&M expenses are the recurring expenses which are required to be incurred for regular maintenance and up keep of the plant and at present only 50% of the capacity of the plant is being operated.

As per audited annual accounts and Trial Balance for FY 2019-20, actual O&M expenses are Rs. 24.16 Crore inclusive of 0.01% Coupon on preference shares. In the matter, it is pertinent to mention that as per Note-3, i.e. Share Capital, of audited annual accounts for FY 2017-18, Redeemable cumulative optionally convertible preference share of Rs. 250.00 Crore had been issued in favour of Bank of Baroda for unsustainable debt portion pertaining to balance capacity for which no contract has been executed with UPCL. Accordingly, the Commission is of the view that '0.01% Coupon on Preference Shares' expenses are incurred for non-contracted capacity, therefore, the same cannot be allowed to be recovered from the consumers of the State.

Further, the Commission observed that the expenses towards 'Repair and Maintenance of Plant & Machinery' and 'Employee expenses' have increased to 16.28 Crore and Rs. 3.88 Crore respectively during FY 2019-20 against the expenses amounting to Rs. 9.89 Crore and 0.40 Crore incurred during FY 2018-19. In the matter, the Petitioner submitted that the replacement/service of bearing as per the schedule services of equipments, due to leakage in boiler water tube complete HRSG was drained and fresh water with chemicals were filled for hydro testing and detection of leakage, repair of existing boundary wall, STC flooring and replacement of Main Stop Valve of HRSG and reallocation of drain valves in the plants are the main reasons for increase in Repair & Maintenance cost under the head of Plant & Machinery.

Further, with regard to increase in employee expenses, the Petitioner submitted that during the FY 2019-20, the company has undertaken overhaul, technical verification and maintenance of its operational plant and machinery at its factory premises. The exercise was necessary to avoid any

mishap and incident in the factory premises as the plant had been in operation for last four years. The exercise was also necessary from financial aspect. Hence, the company employed operational and requisite persons for this purpose already on the pay-roll of the group concern. These group concerns have raised their debit notes on the company towards the cost of their respective employee. In the matter, recognising the need of permanent staff in the plant, the Commission advises the Petitioner to appoint regular employees rather than hiring manpower from its group concerns as the plant has the firm PPA for 25 year, therefore, it would be in the interest of the company to appoint permanent staff which would optimise the operations of the company as the permanent staff would not be required to be trained again and again for the same operations.

Based on the above discussion, allowable O&M expenses for the purpose of sharing works out to Rs. 24.13 Crore against the claim of Rs. 24.16 Crore for FY 2019-20. Further, as per UERC Tariff Regulations, 2018 the variation in normative and actual O&M expenses shall be considered as part of gain/loss on account of controllable factors.

Regulation 14 of UERC Tariff Regulations, 2018 specifies as follows:

“14. Sharing of Gains and Losses on account of controllable factors:

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

- a) 1/3rd of such gain or loss shall be passed on as a rebate or allowed to be recovered in tariffs over such period as may be specified in the Order of the Commission;*
- b) The balance amount of such gain or loss may be utilized or absorbed by the Applicant.”*

As discussed above in Para 2.1, O&M expenses have been considered as controllable factor, accordingly, the Commission has approved the total O&M expenses for FY 2019-20 after sharing of gain/loss in accordance with the Regulations as shown in the Table below:

Table 2.6: O&M Expenses Approved After Sharing of Gains and Losses for FY 2019-20 (Rs. Crore)

Actual Claimed in the Petition	Adjusted claim considered for sharing	Normative approved now	Efficiency gain/(loss)	Generator Share	Net Entitlement
A	B	C	D=C-B	E=2/3xD	F=B+E
24.16	24.13	39.50	15.37	10.25	34.38

2.1.2.8 Interest on Working Capital

Regulation 33 of UERC Tariff Regulations, 2018 specifies as follows:

"In case of open cycle Gas Turbine/Combined Cycle thermal generating stations, working capital shall cover:

- a) Landed fuel cost for 1 (one) month corresponding to the NAPAF duly taking into account the mode of operation of the generating station on gas fuel and liquid fuel;*
- b) Liquid fuel stock for ½ (half) month corresponding to the NAPAF, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;*
- c) Operation and maintenance expenses for one month;*
- d) Maintenance spares @ 30% of operation and maintenance expenses; and*
- e) Receivables equivalent to 2 (two) months of Capacity Charge and Energy Charges for sale of electricity calculated on NAPAF duly taking into account the mode of operation of the generating station on gas fuel and liquid fuel."*

The Petitioner has submitted that the Commission vide its Order dated 17.04.2017 had given the option of getting the payment from UPCL without deduction of applicable rebate if the Petitioner forgoes Interest on Working Capital (IoWC) in the interest of the consumers of the State. Accordingly, the Petitioner has relinquished the Interest on Working Capital in the present Petition.

With regard to IoWC, the Commission in its Tariff Order dated 16.05.2017 had allowed the Petitioner to forgo interest on working capital in lieu of non-chargeability of rebate by UPCL on payment of bills raised by the Petitioner. The relevant extract of the aforesaid Tariff Order is as follows:

"In response, M/s GIPL vide its letter dated 28.04.2017 informed that they had given their offer to UPCL to surrender their claim on interest on working capital in lieu of exemption of 2% rebate on payment of fortnightly and monthly bills. Accordingly, based on the M/s GIPL consent as above, interest on working capital has not been included in the annual fixed charges (AFC) as discussed in subsequent paras."

Accordingly, in line with the decision taken in the Tariff Order dated 16.05.2017 and aforesaid discussions, interest on working capital is not being allowed for the purpose of truing up of FY 2019-20.

Further, the Petitioner referring to the Commission's Order dated 17.04.2017 submitted that the payment of invoices was directed to be paid within three working days from the date of

submission of invoices and in lieu of the same the Petitioner had forgone interest on working capital. However, the Petitioner incurred an extra burden of penal interest on delayed payment towards supply of Gas from GAIL of an amount of Rs. 3.31 Crore on account of delay in payment by UPCL.

The Commission vide its Order dated 17.04.2017 had directed that UPCL shall not deduct any rebate from bills of the gas generators and shall make the payment to the generator within 3 working days from the date of receipt of fuel bills and the Commission also ordered that in line with the said arrangement allowed to M/s SEPL, the other Gas generators can also approach UPCL, with proper justification, for entering into similar arrangement with respect to non-deductibility of rebate and waiving off interest on working capital in tariffs in the interest of the consumers of the State under intimation to the Commission. The relevant extract of the said Order is as follows:

"4 Accordingly, it is hereby decided that:

4.1 All the gas based generators may raise fortnightly Gas Supply Bills on UPCL on actual basis as is being received from GAIL/supplier of gas. The final monthly bill would be raised by the generator after the month is over based on the Joint Meter Reading in accordance with the procedure laid down in the PPA duly adjusting the aforesaid amount already realized from UPCL for the first fortnight of the month.

4.2 UPCL shall not deduct any rebate from bills of M/s SEPL and shall make the payment to the generator within 3 working days from the date of receipt of such bills.

4.3 However, in case of other two Gas generators namely M/s GIPL and M/s Beta Infratech , the provisions of payment of bills and rebate shall be governed by their respective PPAs and the principles regarding timely payment of bills enunciated by the Commission in its Order dated 25.01.2017. Further, in line with the arrangement allowed to M/s SEPL in this order, the other two Gas generators can also approach UPCL, with proper justification, for entering into similar arrangement with respect to non-deductibility of rebate and waiving off interest on working capital in tariffs in the interest of consumers of the State under intimation to the Commission."

Subsequent to the aforesaid Order, the Petitioner vide its letter dated 28.04.2017 informed that they had given their offer to UPCL to surrender their claim of interest on working capital in lieu of exemption of 2% rebate on payment of fortnightly and monthly bills. Accordingly, UPCL was required to make payment of such bills within 3 working days from the receipt of such bills from the Petitioner.

The Commission analysed all the invoices of GAIL as well invoices raised to UPCL by the

Petitioner alongwith the details of payments made by UPCL to the Petitioner and fuel bills of GAIL honoured by the Petitioner to check the genuineness of the claim of the Petitioner. The Commission observed that payments are not being honoured by the UPCL within the time limit specified by the Commission in the aforesaid Order dated 17.04.2017. After analysing all the documents, the Commission worked out that Rs. 3.31 Crore of penal interest is only on account of delay in payments by UPCL. Accordingly, the Commission allows the Petitioner to recover penal interest amounting to Rs. 3.31 Crore. Further, **the Commission once again directs UPCL to make the payment to the Petitioner within 3 working days from the date of receipt of such bills without deducting any rebate in lieu of relinquishment of IWC by the Petitioner.**

2.1.2.9 Non-Tariff Income

Regulation 46 of UERC Tariff Regulations, 2018 specifies as follows:

"46. Non Tariff Income

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

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

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

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) Interest on delayed or deferred payment on bills;*
- e) Interest on advances to suppliers/contractors;*
- f) Rental from staff quarters;*
- g) Rental from contractors;*
- h) Income from hire charges from contactors and others;*
- i) Income from advertisements, etc.;*

j) Any other non- tariff income.

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

The Petitioner has claimed Non-tariff income of Rs. 1.01 Crore comprising of Interest on income tax refund, Exchange rate fluctuations and interest income which reconciles with the audited annual accounts for FY 2019-20. Accordingly, the Commission has considered the same for the purpose of truing up for FY 2019-20.

2.1.2.10 Annual Fixed Charges (AFC) for FY 2019-20

Based on the above analysis, the Commission has worked out the approved figures of AFC for FY 2019-20. The summary of the same is as follows:

Table 2.7: Annual Fixed Charges for FY 2019-20 approved by the Commission (Rs. Crore)

Particulars	Approved in Tariff Order dated 27.02.2019	Claimed	Allowable
Depreciation	20.28	20.29	20.28
Interest on Loan & Financial Cost	31.47	33.40	32.85
Return on Equity	11.66	11.67	11.66
O&M Expenses after sharing	39.50	24.16	34.38
Interest on Working Capital	0.00	0.00	0.00
Less: Non-Tariff Income	1.19	1.01	1.01
Sub-Total	101.73	88.51	98.17
Interest charged by fuel supplier due to delay by UPCL	0.00	3.31	3.31
True up impact with carrying cost for FY 2017-18	(2.68)	0.00	(2.68)
Total	99.05	91.82	98.81

Accordingly, trued-up AFC for FY 2019-20 works out to Rs. 98.81 Crore against Rs. 99.05 Crore approved for FY 2019-20 by the Commission vide its Tariff Order dated 27.02.2019. The Commission has worked out a surplus of Rs. 0.25 Crore for FY 2019-20 which works to Rs. 0.30 Crore with carrying cost to be recovered in FY 2021-22.

2.1.2.10.1 Capacity Charge and Energy Charge Rate (ECR) for FY 2019-20

Based on the above analysis for all the heads of expenses of AFC, the Commission has after truing up, approved the Annual Fixed Charges (AFC) of the Petitioner attributable to its beneficiary for FY 2019-20.

Regulation 49 of UERC Tariff Regulations, 2018 specify as follows:

“49. Computation and Payment of Annual Fixed Charges and Energy Charges for Thermal Generating Stations

- (1) *The fixed cost of a thermal generating station shall be computed on annual basis, based on the norms specified under these Regulations, and recovered on monthly basis under capacity charge. The total capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share/allocation in the capacity of the generating station.*
- (2) *The capacity charge (inclusive of incentive) payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae:*

$$CC_1 = (AFC/12) (PAF_1 / NAPAF) \text{ subject to ceiling of } (AFC/12)$$

$$CC_2 = (AFC/6) (PAF_2 / NAPAF) \text{ subject to ceiling of } ((AFC/6) - CC_1)$$

$$CC_3 = (AFC/4) (PAF_3 / NAPAF) \text{ subject to ceiling of } ((AFC/4) - (CC_1+CC_2))$$

$$CC_4 = (AFC/3) (PAF_4 / NAPAF) \text{ subject to ceiling of } ((AFC/3) - (CC_1+CC_2+CC_3))$$

$$CC_5 = (AFC \times 5/12) (PAF_5 / NAPAF) \text{ subject to ceiling of } ((AFC \times 5/12) - (CC_1+CC_2+CC_3+CC_4))$$

$$CC_6 = (AFC/2) (PAF_6 / NAPAF) \text{ subject to ceiling of } ((AFC/2) - (CC_1+CC_2+CC_3+CC_4+CC_5))$$

$$CC_7 = (AFC \times 7/12) (PAF_7 / NAPAF) \text{ subject to ceiling of } ((AFC \times 7/12) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6))$$

$$CC_8 = (AFC \times 2/3) (PAF_8 / NAPAF) \text{ subject to ceiling of } ((AFC \times 2/3) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7))$$

$$CC_9 = (AFC \times 3/4) (PAF_9 / NAPAF) \text{ subject to ceiling of } ((AFC \times 3/4) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8))$$

$$CC_{10} = (AFC \times 5/6) (PAF_{10} / NAPAF) \text{ subject to ceiling of } ((AFC \times 5/6) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8+CC_9))$$

$$CC_{11} = (AFC \times 11/12) (PAF_{11} / NAPAF) \text{ subject to ceiling of } ((AFC \times 11/12) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8+CC_9+CC_{10}))$$

$$CC_{12} = (AFC) (PAF_Y / NAPAF) \text{ subject to ceiling of } ((AFC) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8+CC_9+CC_{10}+CC_{11}))$$

Provided that in case of generating station or unit thereof or transmission system or an element thereof, as the case may be, under shutdown due to Renovation and Modernisation, the generating company or the transmission licensee shall be allowed to recover part of AFC which shall include O&M expenses and interest on loan only.

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

$NAPAF$ = Normative plant availability factor in percentage.

PAF_N = Percent Plant availability factor achieved upto the end of the n th month.

PAF_Y = Percent Plant availability factor achieved during the Year.

$CC_1, CC_2, CC_3, CC_4, CC_5, CC_6, CC_7, CC_8, CC_9, CC_{10}, CC_{11}$ and CC_{12} are the Capacity Charges of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th months respectively.

- (3) The PAFM shall be computed in accordance with the following formula:

$$NPAFM = 10000 \times \sum_{i=1} DC_i / \{ N \times IC \times (100 - AUX) \} \%$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

DC_i = Average declared capacity (in ex-bus MW), for the i th day of the period, i.e. the month or the year as the case may be, as certified by the State load dispatch centre after the day is over.

IC = Installed Capacity (in MW) of the generating station

N = Number of days during the period i.e. the month or the year as the case may be.

Note: DC_i and IC shall exclude the capacity of generating units not declared under commercial operation. In case of a change in IC during the concerned period, its average value shall be taken.

- (4) Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 47(2).
- (5) The energy charge shall cover the primary fuel cost and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel price adjustment). Total Energy charge payable to the generating company for a month shall be:

$$(\text{Energy charge rate in Rs./kWh}) \times \{\text{Scheduled energy (ex-bus) for the month in kWh.}\}$$

- (6) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:

(a) For gas and liquid fuel based stations

$$ECR = GHR \times LPPF \times 100 / \{CVPF \times (100 - AUX)\}$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Weighted Average Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic meter, as applicable for gas and liquid fuel based stations.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.

(7) The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel, i.e. natural gas, RLNG, liquid fuel etc., as per the forms specified at Annexure-I to these regulations:

Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. natural gas, RLNG, liquid fuel etc., shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months.

(8) The landed cost of fuel shall include price of fuel corresponding to the grade/quality/calorific value of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road/gas pipe line or any other means for the purpose of computation of energy charges."

With regard to Gross Station Heat Rate, the Commission vide its suo-moto Order dated 05.04.2019 had approved the Design Station Heat Rate as 1911.809 kCal/kWh and Gross SHR as 2007.40 kCal/kWh for the gas based generating plants of M/s SEPL and M/s GIPL in accordance with the Regulations based on the report of external Consultant appointed by the Commission. Further, it is to be noted that SHR is a controllable factor which can be optimised through efficient operations and as per MYT Regulations, any variation in respect of controllable factor is subject to sharing of gain/loss. In accordance with the said Order, the Petitioner will be entitled for incentives on account of achieving lower SHR than the normative SHR of 1988.05 kCal/kWh which is nothing but the actual SHR achieved post stabilisation period as per the Consultant's report and disincentives

if the actual SHR exceeds 2007.4 kCal/kWh. The relevant extract of the Order is as follows:

“2.45 In this regard, the Commission is of the view that the report submitted by the Consultant in the matter of determination of SHR of the Gas based CCPP of M/s GIPL and M/s SEPL can be adopted and, accordingly, the Commission approves the Design Station Heat Rate as 1911.809 kCal/kWh and Gross Station Heat Rate (considering MYT Regulation factor of 1.05) as 2007.4 kCal/kWh, for gas based CCPP of both the Generators, i.e. M/s GIPL & M/s SEPL, located at Kashipur, Uttarakhand, from the date of their respective CODs.

...

...

2.48 Further, the Station Heat Rate is a controllable factor the performance of which can be optimized by the Generators through efficient operations. The MYT Regulations states that, the variation in the performance of the Generators with respect to controllable factors is subject to sharing of gain/loss. In this regard, the Commission is of the view that for the purposes of sharing of gain/loss, on account of efficient operation with respect to achievement of the optimum actual Station Heat Rate by the Generators, the same shall be evaluated based on the Gross SHR of 1988.05 kCal/kWh which is nothing but the actual SHR achieved post stabilisation period as per Consultant’s report. In other words, the two generators will be eligible for incentives on account of lower SHR if the same is below 1988.05 kCal/kWh and disincentives if the actual SHR exceeds 2007.4 kCal/kWh. There will be no incentive or disincentive in the range of 1988.05 kCal/kWh to 2007.4 kCal/kWh. This will motivate the Generators to optimize the performance of their respective plants in an efficient manner and keep a check on wasteful expenditure. However, for the purposes of periodic billing by the Generators on UPCL, the Gross Station Heat Rate shall be considered equivalent to 2007.4 kCal/kWh as discussed in above paras.

2.49 Further, the GSHR as approved in this Order shall be squarely applicable from billing period commencing on 1st April, 2019 and any adjustment for the prior period, i.e. from COD till 31st March, 2019 shall be considered in the next Tariff proceedings.”

For the purpose of truing up of the Energy Charges for FY 2019-20, the Commission analysed the invoices raised by the fuel supplier for supply of fuel to the Petitioner’s plant, gross generation as well as net generation of the Petitioner’s plant for the aforesaid period and other relevant information that was required to work out the actual SHR and actual Auxiliary Energy Consumption (AUX) of the respective years as per the UERC Tariff Regulations, 2018.

Based on the analysis of the documents provided by the Petitioner, actual SHR works out to

1958.563 kCal/kWh for FY 2019-20 against the normative SHR, i.e. 1988.05 kCal/kWh to 2007.40 kCal/kWh approved by the Commission for the purposes of sharing of gain/losses on this account. Since the actual SHR is less than 1988.05 kCal/kWh, the Petitioner is entitled for incentives on account of lower SHR as per the aforesaid suo-moto Order. Further, based on the generation data, the Commission observed that the actual auxiliary consumption is 2.442% for FY 2019-20 against the Normative auxiliary consumption of 2.50% in accordance with the UERC Tariff Regulations, 2018.

In accordance with the UERC Tariff Regulations, 2018, auxiliary consumption and SHR are controllable factors and, therefore, financial impact of efficiency/inefficiency in the performance of the generator on these counts is to be shared between the generator and the distribution licensee. Accordingly, the Commission has determined the energy charges for FY 2019-20 based on the actual SHR and actual auxiliary consumption vis-a-vis normative SHR and normative auxiliary consumption to share the gain/losses of lower SHR and lower actual auxiliary consumption than normative levels. In accordance with the UERC Tariff Regulations, 2018, the detailed computation of actual performance parameters, i.e. SHR and auxiliary consumption vis-à-vis norms approved by the Commission alongwith sharing of gains/losses is shown in the Table below:

Table 2.8: True-up of Energy Charges for FY 2019-20 approved by the Commission

Particulars	Unit	FY 2019-20
CVPF (Weighted average GCV of fuel)	Kcal/SCM	9414.66
Gas Consumption (SM3)	SM3	12,95,71,597.00
Total Fuel cost	Rs.	3,16,33,84,502.00
LPPF (Total Gas bill amount/ Total Gas taken during the month)	Rs./ SM3	24.14
Gross annual Generation	kWh	62,28,41,000.00
Actual Station Heat Rate	kCal/kWh	1,958.563
Normative Station Heat Rate	kCal/kWh	1988.05
Actual Auxiliary Energy Consumption	%	2.442%
Normative Auxiliary Energy Consumption	%	2.50%
Actual Energy Charge Rate (a)	Rs./kWh	5.206
Normative Energy Charge Rate (b)	Rs./kWh	5.288
Energy Sent out (A)	kWh	60,74,62,000.00
Energy Charges to be recovered at Actual Energy Charge Rate (B) = (A)*(a)	Rs.	3,16,24,99,467.36
Energy Charges to be recovered at Normative Energy Charge Rate (C) = (B)*(b)	Rs.	3,21,20,26,471.42
Gain/(Loss) (D) = (C)-(B)	Rs.	4,95,27,004.06
Sharing of Gain (2/3 of Gain/loss) (D)	Rs.	3,30,18,002.70
Energy Charges after sharing (E) = (B) + (D)	Rs.	3,19,55,17,470.07
Actual Energy charges already recovered (F)	Rs.	3,24,23,92,702.00
Balance amount to be recovered or (refund) (E)-(F)	Rs.	(4,68,75,231.93)

With regard to the carrying cost on the amount to be refunded to UPCL on account of truing up of energy charges for FY 2019-20, the Petitioner submitted that the recovery should not be made with carrying cost as the payments towards capacity charges and energy charges are not being timely paid by UPCL. The Commission analysed all the documents pertaining to the invoices raised by the Petitioner and payments made by UPCL.

In the matter, the Commission observed that average delay in payment of bills by UPCL to the Petitioner is around 80 days. In this regard, the Commission is of the view that, carrying cost shall be calculated considering period of 285 days only (365 days - 80 days) for the purposes of truing up of energy charges of FY 2019-20. Further, w.r.t. carrying cost of FY 2020-21, the Commission observed that the invoices of the last quarter of FY 2019-20 only would have an impact in FY 2020-21 considering the average delay of 80 days discussed above. The delay attributable to FY 2020-21 works out to 20 days, 49 days, and 80 days on invoice for the month of January 2020, February 2020 and March 2020 respectively, and accordingly the average days for calculating the carrying cost for FY 2020-21 works out to 353 days. Accordingly, **the energy charges to be refunded to UPCL works out to Rs. 5.31 Crore, which shall be adjusted by the Petitioner in twelve equal instalments starting from April, 2021 in the monthly invoices to be raised on UPCL.**

3 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2020-21

3.1 Annual Performance Review

The Commission, vide its Tariff Order dated 27.02.2019, approved the Tariff for the Petitioner for the third Control Period, i.e. FY 2019-20 to FY 2021-22. Regulation 12(3) of the UERC Tariff Regulations, 2018 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, 2018 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 27.02.2019, on approval of Business Plan and MYT Petition for the third Control Period from FY 2019-20 to FY 2021-22, had approved the AFC for the Control Period based on the approved capital cost as on 31.03.2018. The Petitioner, in its present Petition, has proposed revision of estimates for FY 2020-21 based on the audited accounts for FY 2019-20 and revised estimates for FY 2020-21.

The Commission, in this Order, has carried out the Truing up for FY 2019-20 in accordance with the UERC Tariff Regulations, 2018. In accordance with Regulation 12(3) of the UERC Tariff Regulations, 2018, 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. Accordingly, the Commission shall carry out the truing up of FY 2020-21 based on the audited accounts for that year and give effect on this account during the proceedings for determination of AFC for FY 2022-23.

Further, the Petitioner has claimed additional capitalization of Rs. 5.65 Crore in FY 2020-21. The Commission has gone through the submission of the Petitioner, and regarding additional capitalization in FY 2020-21 the Commission is of the view that the same shall be allowed at the time of truing-up of FY 2020-21 based on the actual expenditure and after carrying out prudence check of the same, which is in line with the views taken by the Commission in the Business Plan approved for third Control Period vide Order dated 27.02.2019 and subsequent orders of the Commission as discussed above.

With regard to performance parameter, i.e. SHR the Petitioner submitted that the Commission had ordered the periodic billing with normative SHR of 2007.40 kCal/kWh, however, the Petitioner proposed to raise the claim for energy charges considering the SHR of 1988.05 kCal/kWh or actual SHR whichever is higher and the actual claim can be settled during subsequent true-up/ARR Order. The Petitioner proposed aforesaid methodology as it submitted that on one hand M/s GIPL is unable to recover its dues from UPCL in full and on the other hand M/s GIPL would be required to pay carrying cost on the said unrecovered amount due to billing at higher SHR as compared to the actual achieved SHR if the same is lower than the normative SHR. The Commission has dealt with the issue in the subsequent part of this Order.

4 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on ARR for FY 2021-22

4.1 Physical Parameters

4.1.1 NAPAF

Regulation 47 of UERC Tariff Regulations, 2018 specifies as under:

“(1) Normative Annual Plant Availability Factor (NAPAF):

(a) For all thermal generating stations: 85%”

Further, as discussed in the Tariff Order dated 16.05.2017, the Commission while approving the tariff for the Petitioner's plant approved the NAPAF 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.”

Accordingly, the Commission is of the view that the NAPAF of 85% approved for FY 2021-22 in the Tariff Order dated 27.02.2019 for third Control Period shall continue to be applicable without any change.

4.1.2 Design Energy, Auxiliary Energy Consumption and Saleable Primary Energy

The Petitioner in its Petition has projected energy generation from its 225 MW CCPP as approved for FY 2021-22 in the Tariff Order dated 27.02.2019 for the third Control Period.

Accordingly, the Commission approves saleable primary energy after deducting the normative auxiliary consumption of 2.50% as 776.80 MU.

4.2 Financial Parameters

4.2.1 Capital Cost and Additional Capitalisation for FY 2021-22

The Commission has not allowed any capitalisation for FY 2020-21 as the same will be approved based on the prudence check at the time of truing up proceedings for FY 2020-21. Accordingly, opening capital cost for FY 2021-22 has been considered equivalent to the closing capital

cost for FY 2019-20.

Further, the Petitioner has claimed additional capitalisation amounting to Rs. 14.10 Crore for FY 2021-22. The Petitioner submitted that it has estimated additional capitalisation in civil works and procurement of general & critical spares for GT and emergency DG set to meet the emergency requirement of essential auxiliaries which are necessarily required to be run to avoid major damages to GT and ST.

The Commission vide its Tariff Order dated 27.02.2019 on approval of the Business Plan and Tariff Petition of the Petitioner for the Control Period from FY 2019-20 to FY 2021-22, had decided to consider the additional capitalisation at the time of truing up of the respective years based on the audited accounts and as per the prevailing Regulations. Further, with respect to the cost of Initial Spares to be allowed as additional capitalisation, the Commission has already taken a view in this regard in the Tariff Order dated 16.05.2017 that such capitalisation shall be reviewed at the time of truing up based on the actual expenditure subject to the ceiling limit specified under the Regulations. Accordingly, the Commission at this stage does not find any reason to approve any additional capitalisation for FY 2021-22 and additional capitalisation, if any, shall be considered on actual basis subject to prudence check on the basis of provisions of additional capitalisation and de-capitalisation in the prevailing MYT Regulations.

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.

Accordingly, based on the above discussion, capital cost worked out as on 31.03.2020, i.e. Rs. 401.13 Crore after considering the additional capitalisation and de-capitalisation approved for FY 2019-20 has been considered as opening capital cost for FY 2021-22 and no additional capitalisation has been considered for FY 2021-22.

Accordingly, based on the above discussion, the details of the capital cost is as follows:

Table 4.1: Approved Gross Fixed Assets for FY 2021-22 (Rs. Crore)

Particulars	Opening GFA	Additional Capitalisation	Closing GFA
Land (Freehold Land)	6.76	0.00	6.76
Civil Works	29.10	0.00	29.10

Table 4.1: Approved Gross Fixed Assets for FY 2021-22 (Rs. Crore)

Particulars	Opening GFA	Additional Capitalisation	Closing GFA
Plant & Machinery	364.39	0.00	364.39
Furniture and Fixtures	0.21	0.00	0.21
Office Equipment & Others	0.09	0.00	0.09
Computers	0.03	0.00	0.03
Vehicles	0.54	0.00	0.54
Total	401.13	0.00	401.13

4.2.1.1 Capital Structure

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

“ ...

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 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 1.4.2019, Debt: Equity Ratio shall be as approved by the Commission in the previous Orders.”

Based on the discussion in the preceding Paras, since capital cost worked out as on 31.03.2020, i.e. Rs. 401.13 Crore after considering the additional capitalisation approved for FY 2019-20 has been considered as opening capital cost for FY 2021-22, accordingly, the capital structure for FY 2019-20 has also been considered for FY 2021-22. Details of the capital structure for FY 2021-22 claimed by the Petitioner and approved by the Commission is as follows:

Table 4.2: Capital Structure for FY 2021-22

Particular	Opening Capital Structure as on 01.04.2021				Addition during year				Closing Capital Structure as on 31.03.2022			
	Claimed		Approved		Claimed		Approved		Claimed		Approved	
	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%
Debt	325.82	80.00	325.85	81.24	0.00	00	0.00	00.00	325.82	77.41	325.85	81.24
Equity	81.00	20.00	75.27	18.76	14.10	100	0.00	00.00	95.10	22.59	75.27	18.76
Total	406.82	100.00	401.13	100.00	14.10	100	0.00	00.00	420.92	100.00	401.13	100.00

4.2.2 Depreciation

Regulation 28 of the UERC Tariff Regulations, 2018 specifies as follows:

“28. Depreciation

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

Provided that depreciation shall not be allowed on assets funded through Consumer Contribution and Capital Subsidies/Grants.

(2) *The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.*

...

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

....”

The Petitioner has claimed depreciation amounting to Rs 21.30 Crore for FY 2021-22. The Commission has worked out the depreciation of Rs. 20.29 Crore against the admissible average GFA of Rs. 401.13 Crore for FY 2021-22. Details of the depreciation claimed and approved is as follows:

Table 4.3: Claimed and Approved Depreciation for FY 2021-22 (Rs. Crore)

Particular	Approved in Tariff Order	Claimed	Approved
Depreciation	20.28	21.30	20.29

4.2.3 Return on Equity

Regulation 26 of the UERC Tariff Regulations, 2018 specifies as follows:

“26. Return on Equity

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

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

(2) *Return on equity shall be computed on at the base rate of 15.50% 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. 13.65 Crore for FY 2021-22. As discussed earlier, the additional capitalisation will be approved based on the actual expenditure at the time of truing up. Accordingly, the Commission has worked out the Return on Equity based on the opening equity of FY 2021-22. Details of the Return on Equity claimed and approved is as follows:

Table 4.4: Claimed and Approved RoE for FY 2021-22 (Rs. Crore)

Particular	Approved in Tariff Order	Claimed	Approved
Return on Equity	11.66	13.65	11.67

4.2.4 Interest on Loans and Financial Charges

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

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

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

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

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

...

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

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

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

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

weighted average rate of interest.

...“

The Petitioner has claimed interest on normative loan amounting to Rs. 27.02 Crore considering the rate of interest of 12.69%. With regard to interest rate, the Petitioner submitted that the rate of interest for FY 2021-22 is based on the actual interest rate for first half of FY 2020-21.

The Commission has considered the net closing normative loan of Rs. 244.19 Crore for FY 2019-20 as opening normative loan for FY 2020-21 and depreciation of Rs. 20.29 Crore approved for FY 2020-21 as repayment of normative loan as per applicable UERC Tariff Regulations, 2018 to work out the opening net normative loan, i.e. Rs. 223.91 Crore for FY 2021-22. Further, repayment has been considered equivalent to approved depreciation for FY 2021-22. Furthermore, weighted average rate of interest as derived for FY 2019-20, i.e. 12.37% has been considered for determination of interest on normative loan which shall be reviewed at the time of truing up. Accordingly, the Commission has approved interest on loan of Rs. 26.45 Crore for FY 2021-22.

The Petitioner has claimed Bank charges amounting to Rs. 1.34 Crore for FY 2021-22. The Commission has decided to provisionally approve the Bank Charges for FY 2021-22 as claimed by the Petitioner subject to truing up. The same will be reviewed at the time of truing up for FY 2021-22.

Based on the above, details of interest claimed and allowed for the truing up are given in the Table below:

Table 4.5: Interest on Normative Loan Claimed and Approved for FY 2021-22 (Rs. Crore)

Particular	Approved in Tariff Order dated 27.02.2019	Claimed by Petitioner	Approved after truing up
Gross Opening Normative Loan	352.82	325.82	325.85
Cumulative Repayment	101.94	102.25	101.95
Net Opening Normative Loan	223.88	223.57	223.91
Additional Capitalisation	0.00	0.00	0.00
Normative Repayment of loan	20.28	21.30	20.29
Net Closing Normative Loan	203.59	202.28	203.62
Average Normative Loan	213.74	212.93	213.76
Rate of Interest	12.20%	12.69%	12.37%
Normative Interest	26.05	27.02	26.45
Add: Finance charges	0.45	1.34	1.34
Total Interest and Finance Charges	26.53	28.36	27.79

4.2.5 Operation & Maintenance (O&M) Expenses

Regulation 48(1) of the UERC Tariff Regulations, 2018, specifies as follows:

“(1) Normative O&M Expenses for Open Cycle Gas Turbine/Combined Cycle generating stations shall be as under:

(In Rs. Lakh/MW)

Year	Gas Turbine/ Combined Cycle generating stations		Small gas turbine power generating stations (less than 50 MW Unit size)	Advance F class Machines
	With warranty spares for 10 years	Without warranty spares		
2018-19	11.22	16.82	20.41	34.56
2019-20	11.97	17.94	21.76	36.92
2020-21	12.76	19.13	23.21	39.44
2021-22	13.61	20.41	24.75	42.14

“

Accordingly, based on the applicable O&M norms, the normative O&M expenses for FY 2021-22 works out to Rs. 45.09 Crore.

4.2.6 Interest on Working Capital

Regulation 33 of UERC Tariff Regulations, 2018 specifies as follows:

“In case of open cycle Gas Turbine/Combined Cycle thermal generating stations, working capital shall cover:

- a) Landed fuel cost for 1 (one) month corresponding to the NAPAF duly taking into account the mode of operation of the generating station on gas fuel and liquid fuel;*
- b) Liquid fuel stock for ½ (half) month corresponding to the NAPAF, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;*
- c) Operation and maintenance expenses for one month;*
- d) Maintenance spares @ 30% of operation and maintenance expenses; and*
- e) Receivables equivalent to 2 (two) months of Capacity Charge and Energy Charges for sale of electricity calculated on NAPAF duly taking into account the mode of operation of the generating station on gas fuel and liquid fuel.”*

The Petitioner submitted that the Commission vide its Order dated 17.04.2017 had allowed the option of getting the payment from UPCL without deduction of applicable rebate if the Petitioner forgoes Interest on Working Capital in the interest of the consumers of the State. Hence, the Petitioner

has relinquished Interest on Working Capital for the purpose of computation of Annual Fixed charges.

As discussed in the preceding Chapters of this Order and methodology adopted in the Tariff Order dated 18.04.2020, the Commission has not considered any interest on working capital while approving the AFC for FY 2021-22.

4.2.7 Non-Tariff Income

Regulation 46 of UERC Tariff Regulations, 2018 specifies as follows:

“46. Non Tariff Income

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

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

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

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) Interest on delayed or deferred payment on bills;*
- e) Interest on advances to suppliers/contractors;*
- f) Rental from staff quarters;*
- g) Rental from contractors;*
- h) Income from hire charges from contactors and others;*
- i) Income from advertisements, etc.;*
- j) Any other non- tariff income.*

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

The Petitioner has proposed non-tariff income of Rs. 0.76 Crore for FY 2021-22. The Commission provisionally considers the same in the ARR for FY 2021-22. However, the same is subject to correction during the truing up proceedings based on actuals.

4.2.8 Annual Fixed Charges for FY 2021-22

Based on the above analysis, the Commission has worked out the approved figures of AFC for FY 2021-22. The summary of AFC for FY 2021-22 is as shown in the Table below:

Table 4.6: Annual Fixed Charges for FY 2021-22 approved by the Commission (Rs. Crore)

Particulars	As approved in Tariff Order dated 27.02.2019	As claimed by the Petitioner	As approved by the Commission
Depreciation	20.28	21.30	20.29
Interest on Loan and Finance charges	26.53	28.36	27.79
Return on Equity	11.66	13.65	11.67
O&M Expenses	45.09	45.09	45.09
Interest on Working Capital	0.00	0.00	0.00
Less: Non-Tariff Income	1.19	0.76	0.76
Sub- Total	102.37	107.62	104.07
True up for FY 2019-20 with carrying cost	0.00	0.00	(0.30)
Total	102.37	107.62	103.77

4.2.9 Annual Fixed Charges/Capacity Charge and Energy Charge Rate (ECR) for FY 2021-22

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 2021-22 attributable to its beneficiary.

Regulation 49 of UERC Tariff Regulations, 2018 specifies as follows:

“49. Computation and Payment of Annual Fixed Charges and Energy Charges for Thermal Generating Stations

- (1) *The fixed cost of a thermal generating station shall be computed on annual basis, based on the norms specified under these Regulations, and recovered on monthly basis under capacity charge. The total capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share/allocation in the capacity of the generating station.*
- (2) *The capacity charge (inclusive of incentive) payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae:*

$$CC_1 = (AFC/12) (PAF_1 / NAPAF) \text{ subject to ceiling of } (AFC/12)$$

$$CC_2 = (AFC/6) (PAF_2 / NAPAF) \text{ subject to ceiling of } ((AFC/6) - CC_1)$$

$CC_3 = (AFC/4) (PAF_3 / NAPAF)$ subject to ceiling of $((AFC/4) - (CC_1+CC_2))$

$CC_4 = (AFC/3) (PAF_4 / NAPAF)$ subject to ceiling of $((AFC/3) - (CC_1+CC_2+CC_3))$

$CC_5 = (AFC \times 5/12) (PAF_5 / NAPAF)$ subject to ceiling of $((AFC \times 5/12) - (CC_1+CC_2+CC_3+CC_4))$

$CC_6 = (AFC/2) (PAF_6 / NAPAF)$ subject to ceiling of $((AFC/2) - (CC_1+CC_2+CC_3+CC_4+CC_5))$

$CC_7 = (AFC \times 7/12) (PAF_7 / NAPAF)$ subject to ceiling of $((AFC \times 7/12) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6))$

$CC_8 = (AFC \times 2/3) (PAF_8 / NAPAF)$ subject to ceiling of $((AFC \times 2/3) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7))$

$CC_9 = (AFC \times 3/4) (PAF_9 / NAPAF)$ subject to ceiling of $((AFC \times 3/4) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8))$

$CC_{10} = (AFC \times 5/6) (PAF_{10} / NAPAF)$ subject to ceiling of $((AFC \times 5/6) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8+CC_9))$

$CC_{11} = (AFC \times 11/12) (PAF_{11} / NAPAF)$ subject to ceiling of $((AFC \times 11/12) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8+CC_9+CC_{10}))$

$CC_{12} = (AFC) (PAF_Y / NAPAF)$ subject to ceiling of $((AFC) - (CC_1+CC_2+CC_3+CC_4+CC_5+CC_6+CC_7+CC_8+CC_9+CC_{10}+CC_{11}))$

Provided that in case of generating station or unit thereof or transmission system or an element thereof, as the case may be, under shutdown due to Renovation and Modernisation, the generating company or the transmission licensee shall be allowed to recover part of AFC which shall include O&M expenses and interest on loan only.

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage.

PAF_N = Percent Plant availability factor achieved upto the end of the nth month.

PAF_Y = Percent Plant availability factor achieved during the Year.

$CC_1, CC_2, CC_3, CC_4, CC_5, CC_6, CC_7, CC_8, CC_9, CC_{10}, CC_{11}$ and CC_{12} are the Capacity Charges of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th months respectively.

(3) The PAFM shall be computed in accordance with the following formula:

$$NPAFM = 10000 \times \sum_{i=1} DCi / \{ N \times IC \times (100 - AUX) \} \%$$

$$i = 1$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

DCi = Average declared capacity (in ex-bus MW), for the ith day of the period, i.e. the month or the year as the case may be, as certified by the State load dispatch centre after the day is over.

IC = Installed Capacity (in MW) of the generating station

N = Number of days during the period i.e. the month or the year as the case may be.

Note: *DCi and IC shall exclude the capacity of generating units not declared under commercial operation. In case of a change in IC during the concerned period, its average value shall be taken.*

- (4) *Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 47(2).*
- (5) *The energy charge shall cover the primary fuel cost and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel price adjustment). Total Energy charge payable to the generating company for a month shall be:*

$$(Energy\ charge\ rate\ in\ Rs./kWh) \times \{Scheduled\ energy\ (ex-bus)\ for\ the\ month\ in\ kWh.\}$$

- (6) *Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:*

(b) *For gas and liquid fuel based stations*

$$ECR = GHR \times LPPF \times 100 / \{CVPF \times (100 - AUX) \}$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Weighted Average Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic meter, as applicable for gas and liquid fuel based stations.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.

- (7) *The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel, i.e. natural gas, RLNG, liquid fuel etc., as per the forms specified at Annexure-I to these regulations:*

Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. natural gas, RLNG, liquid fuel etc., shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months.

- (8) *The landed cost of fuel shall include price of fuel corresponding to the grade/quality /calorific value of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road/gas pipe line or any other means for the purpose of computation of energy charges."*

Based on the aforesaid Regulations, capacity charges and energy charges shall be recovered by the Petitioner from the Respondent corresponding to the contracted capacity. Further, with regard to energy charges, as discussed in Chapter 2 & 3 of the Order, the Petitioner requested the Commission to allow recovery of energy charges considering the SHR of 1988.05 kCal/kWh or actual GSHR whichever is higher subject to ceiling of 2007.4 kCal/kWh and the actual claim may be settled during subsequent true up.

In the matter, the Commission observed that actual Gross Station Heat Rate of the Petitioner's plant during the preceding three years as approved by the Commission is 1973.281 kCal/kWh, 1984.779 kCal/kWh and 1958.563 kCal/kWh for FY 2017-18, FY 2018-19, and FY 2019-20 respectively. The Commission had been allowing recovery of energy charges to the Petitioner through periodic billing on UPCL considering the Gross Station Heat Rate (GSHR) equivalent to 2007.4 kCal/kWh in line with the Commission's Order dated 05.04.2019. The relevant extract of the Order dated 05.04.2019 is reproduced hereunder:

"2.48 Further, the Station Heat Rate is a controllable factor the performance of which can be optimized by the Generators through efficient operations. The MYT Regulations states that, the variation in the performance of the Generators with respect to controllable factors is subject to sharing of gain/loss. In this regard, the Commission is of the view that for the purposes of sharing of gain/loss, on account of efficient operation with respect to achievement of the optimum actual Station Heat Rate by the Generators, the same shall be evaluated based on the Gross SHR of 1988.05 kCal/kWh which is nothing but the actual SHR achieved post stabilisation period as per Consultant's report. In other words, the two generators will be eligible for incentives on account of lower SHR if the same is below 1988.05 kCal/kWh and disincentives if the actual SHR exceeds 2007.4 kCal/kWh. There will be no incentive or disincentive in the range of 1988.05 kCal/kWh to 2007.4 kCal/kWh. This will motivate the Generators to optimize the performance of their respective plants in an efficient manner and keep a check on wasteful expenditure. However, for the purposes of periodic billing by the Generators on UPCL, the Gross Station Heat Rate shall be considered equivalent to 2007.4 kCal/kWh as discussed in above paras."

In this regard, it is observed that allowing recovery of energy charges to the Petitioner, through periodic billing on UPCL, at GSHR of 2007.4 kCal/kWh is resulting in over recovery of energy charges to the Petitioner in the relevant year which eventually the Petitioner is required to return at the time of truing-up of the respective year, as the actual GSHR is low as compared to the SHR of 2007.4 kCal/kWh used by the Petitioner for raising the periodic invoice on UPCL. Accordingly, the Commission is of the view that the Petitioner shall raise the periodic invoice on UPCL based on actual GSHR calculated by it on periodic basis, subject to condition that the same shall be restricted to GSHR of 2007.4 kCal/kWh as approved by the Commission in its Order dated 05.04.2019. Further, the Commission would like to clarify that the methodology for sharing of gain/loss on account of efficient operation with respect to achievement of the optimum actual Gross Station Heat Rate by the Generator shall remain unaltered.

(M.K. Jain)
Member (Technical)

(D.P. Gairola)
Member (Law)