

Order

On

**True up for FY 2018-19,
Annual Performance Review
for FY 2019-20**

&

ARR for FY 2020-21

For

M/s Gama Infraprop Pvt Ltd.

April 18, 2020

Uttarakhand Electricity Regulatory Commission

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

Dehradun - 248171

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Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No: 52 of 2019

In the Matter of:

Petition filed by M/s Gama Infraprop Private Limited for True up for FY 2018-19, Annual Performance Review for FY 2019-20 and Revised Annual Revenue Requirement for FY 2020-21.

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.

...Respondent

Coram

Shri D.P. Gairola **Member (Law)**

Shri M.K. Jain **Member (Technical)**

Date of Order: April 18, 2020

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. 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. 52 of 2019 and hereinafter referred to as “Petition”), giving details of its revised projections of Aggregate Revenue Requirement (ARR) for FY 2020-21, based on the true up for FY 2018-19 and APR for FY 2019-20 on 03.12.2019.

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-570/2019-20/2019/1310 dated 09.12.2019 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/02/2019 dated 19.12.2019 removed the critical deficiencies. Based on the submission dated 19.12.2019 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 2018-19, APR for FY 2019-20 and revised ARR for FY 2020-21 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.

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 2018-19 |
| Chapter 3- | Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2019-20, Revised AFC & Tariff for FY 2020-21 |
| Chapter 4- | Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on ARR for FY 2020-21 |

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. On the request of the Petitioner for grant of provisional tariff, the Commission based on the information submitted by the Petitioner and the comments received from UPCL had approved a provisional tariff of Rs. 4.70 per unit (exclusive of PSDF support) to be recovered by the Petitioner from UPCL till determination of final tariff by the Commission.

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. In accordance with Regulation 12 of the UERC Tariff Regulations, 2015 and 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 2019-20 on 03.12.2019. Through the above Petition, M/s GIPL sought true up for FY 2018-19, APR for FY 2019-20 and ARR for FY 2020-21 based on the audited accounts for FY 2018-19. The Commission vide its letter no. UERC/6/TF-570/2019-20/2019/1310 dated 09.12.2019 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/02/2019 dated 19.12.2019 removed the critical deficiencies. Based on the submission dated 19.12.2019 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 2018-19, APR for FY 2019-20 and revised ARR for FY 2020-21 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.

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-570/2019-20/2019/1383 dated 26.12.2019. However, the Commission has not received any objections/suggestions/comments from UPCL in this regard till the date of Order. Further, the Petitioner has requested the Commission to direct PTCUL for signing of connectivity agreement at 200 kV S/s Mahuakheraganj, Kashipur. The Commission sent the copy of the said request to UPCL and PTCUL for comments and the same has been dealt in the subsequent paragraphs of this Tariff

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 2018-19

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

"12. Annual Performance Review

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

(2) The Applicant shall under affidavit and as per the UERC (conduct of Business) Regulations 2004 make an application for Annual Performance Review by November 30th of every year;

...

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

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

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

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

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

In its present filing, the Petitioner has submitted the data relating to its expenses and revenues for FY 2018-19 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 2018-19 alongwith the sharing of gains and losses.

2.1 Impact of Sharing of Gains and Losses on account of Controllable Factors for FY 2018-19

Regulation 14 of the UERC Tariff Regulations, 2015 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, 2015 requires a comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year and truing up of expenses and revenues subject to prudence check including pass through of impact of uncontrollable factors.

O&M expenses 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, 2015 these are controllable expenses. Similarly, in accordance with the UERC Tariff Regulations, 2015, the variation in working capital requirements is also a controllable factor. However, as discussed in Tariff Order dated 16.05.2017, 21.03.2018 and 27.02.2019, 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. 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, 2015.

M/s GIPL in the current Petition has requested the Commission to approve the interest amounting to Rs. 1.07 Crore paid to gas supplier for supplying gas to the Petitioner’s plant on account of delayed payment made by UPCL. The same has been dealt in the subsequent Para 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, 2015.

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 16.05.2017 for the purpose of computation of saleable energy of the Petitioner's plant considered the NAPAF of 85% in accordance with the UERC Tariff Regulations, 2015 for the entire second Control Period. The Commission is of the view that the NAPAF of 85% approved for the second Control Period in Tariff Order dated 16.05.2017 shall continue to be applicable without any change for FY 2018-19 also.

2.1.1.2 Energy Generation and Saleable Primary Energy

The Commission in its Tariff Order dated 16.05.2017 on approval of Business Plan and Multi Year Tariff for the second Control Period from FY 2016-17 to FY 2018-19 had approved the Design Energy based on the contracted capacity of 107 MW. Further, in accordance with Regulation 47(4)(i) of the Tariff Regulations, 2015, 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 2018-19. M/s GIPL has not sought any deviation in the approved saleable energy for FY 2018-19.

M/s GIPL submitted that the actual saleable energy for FY 2018-19 was 412.35 MU which in turn translates to a PLF of 43.99%. 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 2018-19. However, during the year, the actual Gross Generation

was 412.35 MUs and the Plant Load Factor which is determined based on the output was 43.99%. 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 2018-19 was 412.35 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 2018-19. M/s GIPL has also not sought any deviation in the approved design energy for FY 2018-19. Accordingly, the Commission decides to maintain the design energy and saleable primary energy as considered in the MYT Order dated 16.05.2017 for the Petitioner's plant for FY 2018-19.

2.1.2 Financial Parameters

2.1.2.1 Capital Cost

Regulation 21 (2) of UERC Tariff Regulations, 2015 specifies as under:

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

- a) The capital cost admitted by the Commission prior to 01.04.2016 duly trued up as on 01.04.2016;*
- 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 01.04.2018. The Commission vide its Tariff Order dated 27.02.2019 had approved the opening GFA and net additional capitalisation amounting to Rs. 401.02 Crore and Rs. 0.04 Crore respectively for FY 2017-18 for the contracted capacity of 107 MW. Accordingly, the Commission has considered the approved closing GFA, i.e. Rs. 401.06 Crore (Rs. 401.02 Crore *plus* Rs. 0.04 Crore) for FY 2017-18 as opening GFA for the purpose of truing up for FY 2018-19.

2.1.2.2 Additional Capitalisation and De-capitalisation

Regulation 22(1) of UERC Tariff Regulations, 2015 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 1.4.2016 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. 0.0052 Crore pertaining to Plant and Machinery in accordance with Regulation 22(1) of UERC Tariff Regulations, 2015. The Commission approves the additional capitalisation of Rs. 0.0052 Crore as claimed by the Petitioner for the purpose of truing up of FY 2018-19 after prudence check.

Further, the Petitioner submitted that while approving the additional capitalisation for FY 2016-17 vide Tariff Order dated 21.03.2018, the Commission had approved only 50% of the additional capitalisation incurred whereas the Petitioner had claimed the additional capitalisation pertaining to commissioning of GT-1 for the contracted capacity only. Accordingly, the Petitioner requested the Commission to allow additional capitalisation amounting to Rs. 19.11 Crore for FY 2016-17. In this regard, it is worth mentioning that the Commission vide letter no. UERC/6/TF-299/18-19/2018/451

dated 25.06.2018 had already clarified that the Commission had adopted the same methodology as followed by it in the Tariff Order dated 16.05.2017 for apportionment of the capital cost. Further, the matter is pending before the Hon'ble APTEL. Therefore, at present, the Commission is not going into the merits of the matter, however, the matter will be reviewed based on the judgement of the Hon'ble APTEL.

Accordingly, based on the above discussion, the details of the trued-up capital cost for FY 2018-19 is as follows:

Table 2.1: Approved Gross Fixed Assets for FY 2018-19 (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
Plant & Machinery	364.37	0.0052	364.37
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	0.50	0.00	0.50
Total	401.06	0.0052	401.07

2.1.2.3 Capital Structure

Regulation 24 of UERC Tariff Regulations, 2015 specifies as under:

“...

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2016 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 1.4.2016, 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 31.03.2018 as approved by the Commission vide its Tariff Order dated 27.02.2019 while carrying out the truing up for FY 2017-18. The Commission has considered the same Debt-Equity Ratio for the GFA as on 01.04.2018.

Further, with regard to the additional capitalisation claimed for FY 2018-19, the Petitioner

submitted that the expenses for the procurement of assets were funded from equity only. Accordingly, the Commission has considered the financing of additional capitalisation incurred for FY 2018-19 in the ratio of 70:30 in accordance with the UERC Tariff Regulations, 2015.

Capital structure for the GFA and additional capitalisation for FY 2018-19 is as follows:

Table 2.2: Financing for capitalisation for FY 2018-19

Particular	Opening Capital Structure as on 01.04.2018		Addition during year		Closing Capital Structure as on 31.03.2019	
	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%
Debt	325.8171	81.24	0.0036	70.00	325.8207	81.24
Equity	75.2466	18.76	0.0016	30.00	75.2481	18.76
Total	401.0637	100.00	0.0052	100.00	401.0689	100.00

2.1.2.4 Depreciation

Regulation 28 of the UERC Tariff Regulations, 2015 specifies as follows:

"28. Depreciation

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

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

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

...

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

..."

The Petitioner has claimed depreciation of Rs. 20.28 Crore for FY 2018-19 considering the depreciation rates specified by the Commission in its UERC Tariff Regulations, 2015. 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, 2015. Further, the Commission has worked out the depreciation of Rs. 20.28 Crore on the admissible average GFA of Rs. 401.07 Crore for FY 2018-19 by applying the weighted average rate of depreciation of 5.06%.

Details of the depreciation, as approved in Tariff Order dated 21.03.2018, claimed by the Petitioner and trued up for FY 2018-19 is as follows:

Table 2.3: Depreciation approved for FY 2018-19 (Rs. Crore)

Particular	Approved in Tariff Order dated 21.03.2018	Claimed by Petitioner	Approved after truing up
Opening Capital Cost	401.02	401.06	401.06
Addition during year	0.00	0.01	0.01
Closing Capital Cost	401.02	401.07	401.07
Average Capital Cost	401.02	-	401.07
Weighted Average rate of Depreciation	5.06%	-	5.06%
Depreciation	20.28	20.28	20.28

2.1.2.5 Return on Equity (RoE)

Regulation 26 of the UERC Tariff Regulations, 2015 specifies as follows:

“26. Return on Equity

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

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

(2) Return on equity shall be computed on at the base rate of 15.50% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis.”

The Petitioner has claimed the Return on Equity amounting to Rs. 11.66 Crore for FY 2018-19. 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 2018-19 is given in the Table below:

Table 2.4: Return on Equity approved for FY 2018-19 (Rs. Crore)

Particular	Approved in Tariff Order dated 21.03.2018	Claimed by Petitioner	Approved after truing up
Opening Equity	75.23	75.23	75.2466
Addition during the year	0.00	0.00	0.0016
Closing Equity	75.30	75.23	75.2481
Rate of Return on Equity	15.50%	15.50%	15.50%
Return on Equity	11.66	11.66	11.66

2.1.2.6 Interest and Finance charges

Regulation 27 of the UERC Tariff Regulations, 2015 specifies as follows:

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

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

(2) The normative loan outstanding as on 1.4.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2016 from the gross normative loan.

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

...

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

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

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

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

...”

The Petitioner has claimed interest on normative loan of Rs. 34.58 Crore for FY 2018-19 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. 0.0052 Crore for FY 2018-19.

The Commission has examined the audited annual accounts & Trial Balance for FY 2018-19 as well as the submissions made by the Petitioner w.r.t. interest on loan and observed that the Petitioner has submitted opening debt and closing debt amounting to Rs. 338.37 Crore and Rs. 301.16 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 works out to Rs. 344.88 Crore and Rs. 304.63 Crore respectively for FY 2018-19. With regard to variation in opening and closing debt for FY 2018-19, 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 2018-19 is Rs. 40.27 Crore. The Commission observed that the total interest amounting to Rs. 44.73 Crore has been charged to the P&L Statement for FY 2018-19. In this regard, the Petitioner was directed to submit the reasons for variation. The Petitioner clarified that interest of Rs. 44.73 Crore charged to P&L account is inclusive of interest of Rs. 4.46 Crore pertaining to interest on Optional Convertible Debentures issued in favour of Bank of Baroda for unsustainable loan portion, borrowings from related parties to meet out daily operations and penal interest. The same are either not related to the contracted capacity of the project or are related to the short-term borrowings. Accordingly, the Commission has considered interest of Rs. 40.27 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. 344.88 Crore and Rs. 304.63 Crore respectively and considering the interest paid on long term borrowings during the year, the weighted average rate of interest works out to 12.40% for FY 2018-19. The Commission vide its Tariff Order dated 27.02.2019 had directed the Petitioner to re-negotiate with the banks to reduce the interest rate on the prevailing rates. However, instead of reduction in interest rate, there is a minimal increase in the interest rate. **In the matter, the Commission directs the Petitioner to approach the bankers to reduce the rate of interest on the prevailing rates by the next tariff proceedings.**

The Commission has considered the net opening normative loan of Rs. 284.72 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 2018-19 of Rs. 0.0052 Crore has been considered in the ratio of 70:30 in accordance with the UERC Tariff Regulations, 2015, accordingly, the Commission has considered addition to normative debt amounting to Rs.

0.0036 Crore whereas the Petitioner has not considered any addition to the normative loan for the purpose of determination of interest on normative loan.

Further, the Petitioner has claimed Bank Charges amounting to Rs. 1.34 Crore for FY 2018-19 as finance charges. The Commission has gone through the detailed breakup of the bank charges and finds the same in the 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 2018-19 (Rs. Crore)

Particular	Approved in Tariff Order dated 21.03.2018	Claimed by Petitioner	Approved after truing up
Gross Opening Normative Loan	325.79	325.79	325.82
Cumulative Repayment	41.09	41.09	41.09
Net Opening Normative Loan	284.70	284.70	284.72
Additional Capitalisation	0.00	0.00	0.0036
Normative Repayment of loan	20.28	20.28	20.28
Net Closing Normative Loan	264.42	264.42	264.44
Average Normative Loan	274.56	274.56	274.58
Rate of Interest	10.21%	12.59%	12.40%
Normative Interest	28.03	34.58	34.05
Add: Finance charges	0.00	1.34	1.34
Total Interest and Finance Charges	28.03	35.92	35.39

2.1.2.7 Operation & Maintenance (O&M) Expenses

2.1.2.7.1 Truing up of O&M Expenses for FY 2018-19

Regulation 48(1) of UERC Tariff Regulations, 2015 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		
2015-16	9.25	13.87	16.83	28.36
2016-17	9.86	14.79	17.95	30.29
2017-18	10.52	15.77	19.14	32.35
2018-19	11.22	16.82	20.41	34.56

...”

Based on the applicable norms of O&M expenses for combined cycle generating station, the

Commission approves normative O&M expenses of Rs. 36.98 Crore FY 2018-19 for the contracted capacity of the Petitioner's Plant. The Petitioner has submitted that the actual O&M expense of Rs. 14.46 Crore has been incurred during FY 2018-19.

It is to be noted that the Commission has 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 for FY 2018-19, actual O&M expenses are Rs. 14.46 Crore inclusive of the expenses of Rs. 0.03 Crore pertaining to donation. However, the same cannot be allowed to be passed on to the consumers. Any such activity by the Petitioner must be carried out by its own resources as it would be claiming tax deductions on the same. Hence, the same is disallowed. Accordingly, actual O&M expenses net of donation amounting to Rs. 14.43 Crore has been considered by the Commission for FY 2018-19 for sharing of gains & losses.

As per UERC Tariff Regulations, 2015 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, 2015 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 2018-19 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 2018-19 (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
14.46	14.43	36.98	22.55	15.04	29.46

2.1.2.8 Interest on Working Capital

Regulation 33 of UERC Tariff Regulations, 2015 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 (IWC) 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 IWC, 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 2017-18.

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. 1.88 Crore. The Petitioner further submitted that interest penalty amounting to Rs. 1.07 Crore out of the total penalty of Rs. 1.88 Crore was 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 M/s SEPL 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 in some of the events, despite receiving the payment from UPCL on time, the Petitioner delayed in making payment to GAIL. Further, in certain cases, the Petitioner honoured the invoices of GAIL within time whereas UPCL made the payment after due date. After analysing all the documents, the Commission worked out that against the total interest amount of Rs. 1.88 Crore charged by GAIL, Rs. 1.02 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. 1.02 Crore against the claim of Rs. 1.07 Crore made by the Petitioner on this account. 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, 2015 specifies as follows:

"46. Non Tariff Income

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

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

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

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

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

The Petitioner has claimed Non-tariff income of Rs. 0.76 Crore comprising of Interest on income tax refund, Exchange rate fluctuations and interest income which reconciles with the audited annual accounts for FY 2018-19. Accordingly, the Commission has considered the same for the purpose of truing up for FY 2018-19.

2.1.2.10 Prior Period Adjustments:

A. Reversal of Non-Tariff Income

The Petitioner submitted that during FY 2017-18, it had inadvertently booked the non-tariff income of Rs. 0.82 Crore towards DPS to be recovered from UPCL for delay in payment by UPCL against monthly bills, however, the same could not be recovered. Accordingly, the Petitioner requested the Commission to allow the same by reimbursement in AFC for FY 2020-21. The Commission observed from the audited annual accounts for FY 2018-19 that the Petitioner has made a reversal entry for interest income provided in previous years in the Profit and Loss statement for FY 2018-19. Accordingly, the Commission allows the reimbursement of the said non-tariff income in the AFC as the same was considered as income in the truing up of FY 2017-18.

B. Bank Review Charges for FY 2017-18

With regard to the bank review charges amounting to Rs. 0.90 Crore disallowed by the Commission vide its Tariff Order dated 27.02.2019, the Petitioner submitted that as per RBI guidelines and Bank's policy every account is sanctioned subject to review before the sanction expires irrespective of the fact that the account is stressed or standard. The Petitioner also submitted that charges of Rs. 0.45 Crore were levied by banker for restructuring under S4A scheme and balance 0.45 Crore were the yearly review charges as per RBI guidelines. The Petitioner has submitted Banker's letter in support of its submission. Based on the Banker's letter, the Commission allows the yearly bank review charges amounting to Rs. 0.45 Crore as these charges are of periodic in nature and does not have any relation with the restructuring of the loan account.

2.1.2.11 Annual Fixed Charges (AFC) for FY 2018-19

Based on the above analysis, the Commission has worked out the approved figures of AFC for FY 2018-19. The summary of the same is as follows:

Table 2.7: Annual Fixed Charges for FY 2018-19 approved by the Commission (Rs. Crore)

Particulars	Approved in Tariff Order dated 21.03.2018	Claimed	Allowable
Depreciation	20.28	20.28	20.28
Interest on Loan & Financial Cost	28.03	35.92	35.39
Return on Equity	11.66	11.66	11.66
O&M Expenses after sharing	36.98	29.47	29.46
Interest on Working Capital	0.00	0.00	0.00
Less: Non-Tariff Income	0.00	0.76	0.76
Sub-Total (A)	96.95	96.57	96.04
Interest charged by GAIL due to delay by UPCL (B)	0.00	1.07	1.02
Prior period adjustments (C)	0.00	1.27	1.27
-Bank Review Charges	0.00	0.45	0.45
-Reversal of Provision for interest income	0.00	0.82	0.82
Total (A+B+C)	96.95	98.91	98.33

Accordingly, trued-up AFC for FY 2018-19 works out to Rs. 98.33 Crore against Rs. 96.95 Crore approved for FY 2018-19 by the Commission. The Petitioner submitted that there was a surplus of Rs. 15.28 Crore based on the actual revenue from sale of power, claimed AFC & Energy charges. Further, the Petitioner requested for sharing of the same in accordance with the prevailing Regulations. It is to be noted that the sharing of O&M expenses has already been done by the Commission under Para 2.1.2.7 of this Order in accordance with the prevailing regulations. Further,

true up of Energy charges has been carried out by the Commission in subsequent Paras of this Order. Furthermore, the trued-up AFC for FY 2018-19 works out to Rs. 98.33 Crore against the approved AFC of Rs. 96.95 Crore. Accordingly, the Commission has approved a gap of Rs. 1.38 Crore for FY 2018-19 which works to Rs. 1.68 Crore with carrying cost to be recovered in FY 2020-21.

2.1.2.11.1 Capacity Charge and Energy Charge Rate (ECR) for FY 2018-19

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 2018-19.

Regulation 49 of UERC Tariff Regulations, 2015 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:*

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

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

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

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

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

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

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

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

$CC_9 = (AFC_{x3/4}) (PAF_9/NAPAF)$ subject to ceiling of $((AFC_{x3/4}) - (CC_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6 + CC_7 + CC_8))$

$CC_{10} = (AFC_{x5/6}) (PAF_{10}/NAPAF)$ subject to ceiling of $((AFC_{x5/6}) - (CC_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6 + CC_7 + CC_8 + CC_9))$

$CC_{11} = (AFC_{x11/12}) (PAF_{11}/NAPAF)$ subject to ceiling of $((AFC_{x11/12}) - (CC_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6 + CC_7 + CC_8 + CC_9 + CC_{10}))$

$CC_{12} = (AFC) (PAF_Y/NAPAF)$ 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.

CC₁, CC₂, CC₃, CC₄, CC₅, CC₆, CC₇, CC₈, CC₉, CC₁₀, CC₁₁ and CC₁₂ 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 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) x {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."

As per the aforesaid suo-moto Order, adjustments for the prior period, i.e. from COD till 31.03.2019 is to be carried out during the current Tariff proceedings. In this regard, it is to be noted that the project remained stranded due to shortage of gas fuel and could be commissioned only on 16.03.2016 on introduction of the PSDF Support Scheme by MoP, GoI for utilization of gas by gas based power plants and the PSDF support under the said scheme was applicable till 31.03.2017. It is pertinent to mention that under the said scheme a fixed amount, i.e. Rs. 4.70/kWh was to be recovered by the generator from the distribution licensee and a certain amount determined based on the reverse bidding was provided to generators by GoI in the form of PSDF support. Accordingly, the Commission is of the view that no adjustment w.r.t. SHR is required for the said period when PSDF scheme was implemented.

Further, for the purpose of truing up of the Energy Charges for FY 2017-18 and FY 2018-19, 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, 2015.

Based on the analysis of the documents provided by the Petitioner, actual SHR works out to 1973.281 kCal/kWh and 1984.78 kCal/kWh for FY 2017-18 and FY 2018-19 respectively against the normative SHR range of, 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 for FY 2017-18 and FY 2018-19 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 2.562% and 2.557% for FY 2017-18 and FY 2018-19 respectively against the Normative auxiliary consumption of 2.50% in accordance with the UERC Tariff Regulations, 2015.

In accordance with the UERC Tariff Regulations, 2015, 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 2017-18 and FY 2018-19 based on the actual SHR and actual auxiliary consumption vis-a-vis normative SHR and normative auxiliary consumption to share the gain of lower SHR than 1988.05 kCal/kWh and sharing loss on account of excess actual auxiliary consumption than normative. In accordance with the UERC Tariff Regulations, 2015, 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 2017-18 and FY 2018-19 approved by the Commission (Rs. Crore)

Particulars	Unit	FY 2017-18	FY 2018-19
CVPF (Weighted average GCV of fuel)	Kcal/SCM	9,565.02	9,471.87
Gas Consumption (SM3)	SM3	11,57,76,569	8,64,06,377
Total Fuel cost	Rs. in Crore	209.28	216.29
LPPF (Total Gas bill amount/ Total Gas taken during the month)	Rs./ SM3	18.08	25.03
Gross annual Generation	MU	561.20	412.35
Actual Station Heat Rate	kCal/kWh	1,973.281	1,984.78
Normative Station Heat Rate	kCal/kWh	1988.05	1,988.05
Actual Auxiliary Energy Consumption	%	2.562%	2.557%
Normative Auxiliary Energy Consumption	%	2.50%	2.50%
Actual Energy Charge Rate (a)	Rs./kWh	3.827	5.396
Normative Energy Charge Rate (b)	Rs./kWh	3.853	5.389
Energy Sent out (A)	MU	546.54	401.25
Energy Charges to be recovered at Actual Energy Charge Rate (B) = (A)*(a)	Rs. in Crore	2,09.16	2,16.52
Energy Charges to be recovered at Normative Energy Charge Rate (C)= (B)*(b)	Rs. in Crore	210.58	216.22
Gain/(Loss) (D) = (C)-(B)	Rs. in Crore	1.42	-0.30
Sharing of Gain (2/3 of Gain/loss) (D)	Rs. in Crore	0.95	-0.20
Energy Charges after sharing (E)=(B)+(D)	Rs. in Crore	210.11	216.32
Actual Energy charges already recovered (F)	Rs. in Crore	205.83	216.29
Balance amount to be recovered or (refund) (E)-(F)	Rs. in Crore	4.28	0.03

The Petitioner has requested the Commission to allow the recovery of shortfall on account of truing up of Energy charges for FY 2017-18 and FY 2018-19 from UPCL alongwith the Carrying Cost. As far as carrying cost on the recovery of shortfall amount of energy charge is concerned, it is to be noted that the Petitioner itself had considered the SHR of 1925 kCal/kWh while seeking approval of Tariff for FY 2015-16 and for second Control Period and the Petitioner had failed to submit OEM certificate or any other document in support of its claim for SHR. Accordingly, to arrive at a precise design SHR the Commission had to appoint an external consultant to determine the SHR for the Petitioner's plant. Accordingly, the Commission does not find it prudent to allow the carrying cost on the energy charges for the past years.

Accordingly, considering the gap alongwith the carrying cost amounting to Rs. 1.68 Crore on account of AFC for FY 2018-19 and balance amount to be recovered w.r.t. truing up of SHR & auxiliary consumption, i.e. Rs. 4.31 Crore, net amount to be recovered from UPCL works to Rs. 5.99 Crore. In the matter, the Commission directs UPCL to make payment to the Petitioner in twelve equal instalments starting w.e.f. 01.04.2020.

3 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2019-20

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 approved capital cost as on 31.03.2018. The Petitioner, in its present Petition, has proposed revision of estimates for FY 2019-20 based on the audited accounts for FY 2018-19 and revised estimates for FY 2019-20.

The Petitioner based on the *Suo-Moto* Order dated 05.04.2019 of the Commission and suggestions of the Consultant appointed by the Commission for determination of the SHR for gas

based power plants of M/s GIPL and M/s SEPL requested the Commission to approve the proposed modification of the existing GT Inlet Filter House with the bigger and modified filtration system at a total estimated cost of Rs. 1.73 Crore. The proposed system will have the following advantages:

- (i) Average running filter DP will improve, thereby, improving the MW output and reduction in Heat Rate, and
- (ii) The filters life will increase, thereby, reducing time and improving reliability.

The Petitioner submitted that based on the experience of operation and maintenance of filter house and technical analysis of the various technical proposals of renowned filter house manufacturers, the techno commercial proposal of M/s Airfilco Filtration System Pvt. Ltd. has been finally selected for ordering and executing the work of replacement of existing filter house.

In the matter, it is pertinent to mention that the Consultant appointed by the Commission for determination of Station Heat Rate (SHR) of the Gas based plants of M/s GIPL and M/s SEPL in its report had submitted that the problem of inlet air filter getting clogged and causing a high differential pressure across the filter is a real problem faced by the Generators, which is hampering the performance of the station at certain periods. The Consultant in this regard suggested that regular & periodic maintenance/replacement & modification of Inlet Air Filtration system with the provision of Pulsation/Static type Inlet air Filter arrangement would improve the performance of GT and would also avoid any tripping due to high differential pressure. The Consultant with reference to the issue of high ambient air temperature during hot weather conditions suggested to implement an Evaporative ambient air-cooling system at the suction end and operate the cooling system during hot weather conditions.

The Commission vide its Order dated 05.04.2019, based on the Consultant report, directed both the Generators, i.e. M/s GIPL and M/s SEPL to follow the suggestions given by the Consultant for improvement of SHR after carrying out a cost-benefit analysis, based on the discussion with OEMs/suppliers and Techno economic analysis etc., and also after getting the same approved by the Commission.

In view of the above, the Commission grants, in-principle approval for the proposed works related to Gas Turbine Inlet Filter House amounting to Rs. 1.73 Crore for one GT and based on the prudence analysis of the actual cost incurred the same shall be allowed at the time of truing up of the

respective year in which the said expenditure is capitalized in the books of accounts of the Petitioner.

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 intends 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.

The Commission, in this Order, has carried out the Truing up for FY 2018-19 in accordance with the UERC Tariff Regulations, 2015. 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. The Commission shall carry out the truing up of FY 2019-20 based on the audited accounts for that year and give effect on this account in the AFC of FY 2019-20. The Commission, as discussed earlier, while carrying out the truing up has trued up the O&M expenses for FY 2018-19 based on the details of actual expenses submitted by the Petitioner. The Commission, under the provisions of Regulation 12(3) of the UERC Tariff Regulations, 2018, has revised the AFC for FY 2020-21. The approach adopted by the Commission in the approval of each element of ARR for FY 2020-21 is elaborated in the subsequent paragraphs.

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

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 2020-21 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 2020-21 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 2020-21

The Commission has not allowed any capitalisation for FY 2019-20 as the same will be approved based on the prudence check at the time of truing up proceedings for FY 2019-20. Accordingly, opening capital cost for FY 2020-21 has been considered equivalent to the closing capital

cost for FY 2018-19.

Further, the Petitioner has claimed additional capitalisation amounting to Rs. 21.56 Crore for FY 2020-21. The Petitioner submitted that it has estimated additional capitalisation in civil works pertaining to roads and roof works of the plant 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 2020-21 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 31.03.2019, i.e. Rs. 401.07 Crore after considering the additional capitalisation approved for FY 2018-19 has been considered as opening capital cost for FY 2020-21 and no additional capitalisation has been considered for FY 2020-21.

Accordingly, based on the above discussion, the details of the capital cost for FY 2020-21 is as follows:

Table 4.1: Approved Gross Fixed Assets for FY 2020-21 (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
Plant & Machinery	364.37	0.00	364.37
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	0.50	0.00	0.50
Total	401.07	0.00	401.07

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 31.03.2019, i.e. Rs. 401.07 Crore after considering the additional capitalisation approved for FY 2018-19 has been considered as opening capital cost for FY 2020-21, accordingly, the capital structure for FY 2018-19 has also been considered for FY 2020-21. Details of the capital structure for FY 2020-21 claimed by the Petitioner and approved by the Commission is as follows:

Table 4.2: Capital Structure for FY 2020-21

Particular	Opening Capital Structure as on 01.04.2020				Addition during year				Closing Capital Structure as on 31.03.2021			
	Claimed		Approved		Claimed		Approved		Claimed		Approved	
	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%
Debt	325.82	81.24	325.82	81.24	0.00	00	0.00	00.00	325.82	75.84	325.82	81.24
Equity	75.25	18.76	75.25	18.76	21.56	100	0.00	00.00	103.81	24.16	75.25	18.76
Total	401.06	100.00	401.07	100.00	21.56	100	0.00	00.00	429.62	100.00	401.07	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 21.71 Crore for FY 2020-21. The Commission has worked out the depreciation of Rs. 20.28 Crore against the admissible average GFA of Rs. 401.07 Crore for FY 2020-21. Details of the depreciation claimed and approved for FY 2020-21 is as follows:

Table 4.3: Claimed and Approved Depreciation for FY 2020-21 (Rs. Crore)

Particular	Approved in Tariff Order	Claimed	Approved
Depreciation	20.28	21.71	20.28

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. 14.42 Crore corresponding to the equity amount of Rs. 82.24 Crore based on projected capital cost as on 01.04.2020. 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 2020-21. Details of the Return on Equity claimed and approved for FY 2020-21 is as follows:

Table 4.4: Claimed and Approved RoE for FY 2020-21 (Rs. Crore)

Particular	Approved in Tariff Order	Claimed	Approved
Return on Equity	11.66	14.42	11.66

4.2.4 Interest on Loans

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

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

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

(2) The normative loan outstanding as on 1.4.2019 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. 29.42 Crore considering the rate of interest of 12.63%. With regard to interest rate, the Petitioner submitted that rate of interest for FY 2020-21 is based on the actual interest rate for first half of FY 2019-20.

The Commission has considered the net closing normative loan of Rs. 264.44 Crore for FY 2018-19 as opening normative loan for FY 2019-20 and depreciation of Rs. 20.28 Crore approved for FY 2019-20 as repayment of normative loan as per applicable UERC Tariff Regulations, 2018 to work out the opening net normative loan, i.e. Rs. 244.16 Crore for FY 2020-21. Further, repayment has been considered equivalent to approved depreciation for FY 2020-21. Furthermore, weighted average rate of interest as derived for FY 2018-19, i.e. 12.40% has been considered for determination of interest on normative loan which will be reviewed at the time of truing up. Accordingly, the Commission has approved interest on loan of Rs. 29.02 Crore for FY 2020-21.

The Petitioner has claimed Bank charges amounting to Rs. 1.38 Crore for FY 2020-21. The Commission has decided to provisionally approve the Bank Charges for FY 2020-21 equivalent to the Bank Charges of Rs. 1.34 Crore approved for FY 2018-19.

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 2020-21 (Rs. Crore)

Particular	Approved in Tariff Order dated 27.02.2019	Claimed by Petitioner	Approved after trueing up
Gross Opening Normative Loan	352.82	325.79	325.82
Cumulative Repayment	81.66	81.98	81.66
Net Opening Normative Loan	244.16	243.81	244.16
Additional Capitalisation	0.00	0.00	0.00
Normative Repayment of loan	20.28	21.71	20.28
Net Closing Normative Loan	223.88	222.10	223.88
Average Normative Loan	234.02	232.95	234.02
Rate of Interest	12.20%	12.63%	12.40%
Normative Interest	28.55	29.42	29.02
Add: Finance charges*	0.45	1.38	1.34
Total Interest and Finance Charges	29.00	30.80	30.36

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 2020-21 works out to Rs. 42.20 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 27.02.2019, the Commission has not considered any interest on working capital while approving the AFC for FY 2020-21.

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 2020-21. The Commission provisionally adjusts the claimed non-tariff income as of now in the ARR for FY 2020-21. However, the same is subject to correction during the truing up proceedings.

4.2.8 Annual Fixed Charges for FY 2020-21

Based on the above analysis, the Commission has worked out the approved figures of AFC for FY 2020-21. The summary of AFC for FY 2020-21 is as shown in the Table below:

Table 4.6: Annual Fixed Charges for FY 2020-21 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	21.71	20.28
Interest on Loan and Finance charges	29.00	30.80	30.36
Return on Equity	11.66	14.42	11.66
O&M Expenses	42.20	42.20	42.20
Interest on Working Capital	0.00	0.00	0.00
Less: Non-Tariff Income	1.19	0.76	0.76
Total	101.96	108.37	103.75

4.2.9 Annual Fixed Charges/Capacity Charge and Energy Charge Rate (ECR) for FY 2020-21

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 2020-21 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:*

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

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

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

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

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

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

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

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

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

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

$$CC_{11} = (AFC \times 11/12) (PAF_{11} / NAPAF) \text{ subject to ceiling of } ((AFC \times 11/12) -$$

$$(CC1+CC2+CC3+CC4 +CC5+CC6+CC7+CC8+CC9+CC10))$$

$$CC12=(AFC) (PAFY/NAPAF) \text{ subject to ceiling of } ((AFC)-(CC1+CC2+CC3+CC4+CC5+CC6+CC7+CC8+ CC9+CC10+CC11))$$

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.

CC₁, CC₂, CC₃, CC₄, CC₅, CC₆, CC₇, CC₈, CC₉, CC₁₀, CC₁₁ and CC₁₂ 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:

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

DC_i = 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: *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:

(Energy charge rate in Rs./kWh) x {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 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 SHR whichever is higher and the actual claim may be settled during subsequent true up. In this regard, the Commission is of the view that the recovery of energy charges will be in accordance with the prevailing Regulations and direction given vide Commission's Order dated 05.04.2019 for the purposes of periodic billing by the generators on UPCL, accordingly, the Gross Station Heat Rate shall be considered equivalent to 2007.4 kCal/kWh for billing purposes. However, the Petitioner is at liberty to submit its claims during true up proceedings for FY 2019-20 and FY 2020-21 alongwith levying of carrying cost thereon with proper justifications and information substantiating the same.

4.2.10 Evacuation of Power from the Petitioner's plant

The Petitioner vide its additional submission dated 28.01.2020 requested the Commission to direct PTCUL for signing of connectivity agreement with the Petitioner at 220 kV S/S Mahuakheraganj considering the fact that the Commission vide its Investment Approval Order dated 07.02.2017 has approved the investment to be done for strengthening of 220 kV Mahuakheraganj-Kashipur transmission line for smooth power evacuation from the gas based power plants, i.e. M/s SEPL, M/s GAMA and M/s BETA and the Commission vide its Tariff Order dated 16.05.2017 had also directed the Petitioner to construct a dedicated transmission line. Initiating both the investments for the same cause will lead to unnecessary increase in tariff and ultimately burdening the consumers of the State.

In this regard, the Commission sought comments from UPCL as well as PTCUL. UPCL requested for the comments of PTCUL before forwarding any comments on the issue raised by the Petitioner whereas PTCUL has sought additional time for analysis and submission of its comments.

With regard to evacuation of power from the Petitioner's plant, the Commission vide its Order

dated 19.01.2016 had directed PTCUL to allow evacuation of power from the Petitioner's plant until M/s Beta Infratech Pvt. Ltd. (M/s BETA) initiates evacuation of power. Here, it is pertinent to mention that the Petition filed by M/s BETA for adjudication of dispute between M/s BETA and UPCL in respect of termination of PPA is pending before the Commission as on the date of this Tariff Order. Accordingly, the Commission does not find it prudent to express any view in the matter as of now. However, the Commission accepts the Petitioner's contention that investment by it in creation of new line would unnecessarily impact the tariffs and in turn would burden the consumers of the State. Final decision on allowing connectivity to the Petitioner's plant on 220 kV Mahuakheraganj would only be taken after hearing all the stakeholders and subject to the capacity available at the sub-station and associated lines. Therefore, the Commission is of the view that the status-quo be maintained and the current connectivity arrangement for evacuation of power from the Petitioner's plant will continue till final decision in the matter by the Commission.

(M.K. Jain)
Member (Technical)

(D.P. Gairola)
Member (Law)