Order

On

Approval of Business Plan and Multi Year Tariff Petition

For

M/s Gama Infraprop Pvt. Ltd.

For

Third Control Period

(FY 2019-20 to FY 2021-22)

February 27, 2019

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.: 72 of 2018

And

Petition No.: 73 of 2018

In the Matter of:

Petition filed by M/s Gama Infraprop Pvt. Ltd. for determination of Multi Year Tariff for the third Control Period from FY 2019-20 to FY 2021-22.

AND

In the Matter of:

Petition filed by M/s Gama Infraprop Pvt. Ltd. for approval of Business Plan for the third Control Period from FY 2019-20 to FY 2021-22.

In the Matter of:

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

AND

In the Matter of:

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

Coram

Shri Subhash Kumar Chairman

Date of Order: February 27, 2019

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

In accordance with the relevant provisions of the Act, the Commission had notified

Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2015 (hereinafter referred to as "UERC Tariff Regulations, 2015") for the second Control Period from FY 2016-17 to FY 2018-19 and 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 May 16, 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. Subsequently, the Commission had issued the Order on ARR Petition for FY 2018-19 on 21.03.2018. In compliance with the provisions of the Act and Regulation 8(1) and Regulation 10(1) of UERC Tariff Regulations, 2018, M/s Gama Infraprop Pvt. Ltd. (hereinafter referred to as "M/s GIPL" or "the Petitioner" or "the Generator") filed separate Petitions for approval of its Business Plan for the third Control Period from FY 2019-20 to FY 2021-22 (Petition No. 72 of 2018 hereinafter referred to as the "Business Plan Petition") and Multi Year Tariff Petition (Petition No. 73 of 2018 hereinafter referred to as the "MYT Petition") on 30.11.2018. The Petitioner, in its Business Plan Petition, has submitted the Capital Investment Plan, Financing Plan and trajectory of performance parameters for the third Control Period. Further, through the MYT Petition, the Petitioner has submitted the detailed calculations of its projected Aggregate Revenue Requirement for the third Control Period from FY 2019-20 to FY 2021-22 as per the UERC Tariff Regulations, 2018. Through the MYT Petition, the Petitioner has also requested for true up of FY 2017-18 based on the audited accounts in accordance with UERC Tariff Regulations, 2015.

The MYT Petition filed by the Petitioner had certain infirmities/deficiencies. The Commission, accordingly, vide its letter no. UERC/6/TF-506/18-19/2018/1225 dated 06.12.2018 directed the Petitioner 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/UERC/13/2018 dated 12.12.2018 removed the critical deficiencies. Based on the submission dated 12.12.2018 made by M/s GIPL, the Commission provisionally admitted the Business Plan Petition and MYT 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 Business Plan Petition and the MYT Petition filed by

M/s GIPL for approval of Business Plan and determination of Aggregate Revenue Requirement (ARR) and MYT for the third Control Period from FY 2019-20 to FY 2021-22 and Annual Performance Review for FY 2018-19 alongwith truing up for FY 2017-18 and is based on the original as well as subsequent submission made by M/s GIPL during the course of the proceedings and the relevant findings contained in the Tariff Order dated 16.05.2017 and Order dated 21.03.2018 issued by the Commission.

Tariff determination being the most vital function of the Commission, it has been the practice of the Commission to elaborate in detail the procedure and to explain the underlying principles in determination of tariffs. Accordingly, in the present Order also, in line with past practices, the Commission has tried to elaborate the procedure and principles followed by it in determining the ARR of the generator. The Aggregate Revenue Requirement of M/s GIPL is recoverable from the beneficiary, i.e. UPCL. It is the endeavour of the Commission, to issue Tariff Order 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 Business Plan for the third Control Period.

Chapter 3 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2017-18.

Chapter 4 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2018-19.

Chapter 5 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on MYT for the third Control Period.

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 long term PPA for supply of power of 107 MW on gross capacity basis with the distribution licensee, i.e. UPCL and had achieved commercial operation of its one gas turbine and one steam turbine on 16.03.2016. The Petitioner had filed a Petition for determination of tariff for supply of power from its 214 MW Gas based Combined Cycle Power Plant (hereinafter referred to as "the Project") to UPCL from COD, i.e. 16.03.2016, to 31.03.2016 and for the second Control Period from FY 2016-17 to FY 2018-19. 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 Aggregate Revenue Requirement 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 Aggregate Revenue Requirement for FY 2018-19 vide Tariff Order dated 21.03.2018.

In accordance with the provisions of the Act and Regulation 8(1) and Regulation 10(1) of UERC Tariff Regulations, 2018, the Generating Companies are required to submit a Business Plan Petition and MYT Petition for determination of Aggregate Revenue Requirement latest by November 30 for the ensuing year before the Commission. M/s GIPL in compliance to the Regulations submitted the Business Plan Petition and MYT Petition for determination of ARR for the third Control Period from FY 2019-20 to FY 2021-22 alongwith the true up of expenses for FY 2017-18 based on the audited books of accounts on 30.11.2018.

The Commission vide its letter no. UERC/6/TF-506/18-19/2018/1225 dated 06.12.2018 directed the Petitioner to submit the certain relevant information in accordance with the UERC Tariff Regulations, 2015 for the true-up of FY 2017-18 and MYT for the third Control Period in accordance with the Tariff Regulations, 2018. M/s GIPL was directed to rectify the said infirmities alongwith certain other deficiencies in the Petition and was also required to submit certain additional information necessary for admission of the Petition. M/s GIPL vide its letter no. GIPL/ UERC/13/2018 dated 12.12.2018 removed the critical deficiencies. Based on the submission dated 12.12.2018 made by M/s GIPL, the Commission provisionally admitted the Petition.

Based on the scrutiny of the Petition, the Commission pointed out certain data gaps in the Petition and sought following additional information/clarifications from the Petitioner:

- Copy of primary fuel invoices raised by Gas supplier, i.e. GAIL.
- Copy of all invoices raised to UPCL for supply of electricity during FY 2017-18;
- Supporting documents w.r.t. repayment of principal amount, interest claimed and payment of interest for FY 2017-18.
- Details of Actual O&M expenses incurred.

In order to provide transparency to the process of tariff determination and give UPCL an opportunity to submit its objections/suggestions/comments on the proposals of M/s GIPL, the Commission sent the copy of the tariff proposals to UPCL vide letter no. UERC/6/TF-505/18-19/ 2018/1307 and letter no. UERC/6/TF-506/18-19/2018/1310 dated 18.12.2017.

However, the Commission has not received any objections/suggestions/comments from UPCL in this regard till the date of Order.

The submissions made by M/s GIPL in the Petition as well as additional submissions have been discussed by the Commission at appropriate places in the Order alongwith the Commission's views on the same.

2 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Business Plan for the third Control Period

2.1 Statutory Requirement

The Commission had notified UERC Tariff Regulations, 2015 on 10.09.2015 in accordance with the provisions of the Act. The above Regulations were applicable for determination of Tariff for the second Control Period from FY 2016-17 to FY 2018-19. Further, the Commission notified the UERC Tariff Regulations, 2018 on 14.09.2018 applicable for the third Control Period from FY 2019-20 to FY 2021-22.

2.2 Multi-year Framework

As regards the Multi Year Tariff Framework, Regulation 4 of UERC Tariff Regulations, 2018 specifies as follows:

"4. Multi Year Framework

The Multiyear tariff framework shall be based on the following:-

a) Business plan submitted by the applicant for the entire control period for the approval of the Commission prior to the beginning of the control period;

b) Applicant's forecast of expected ARR for each year of the control period, based on reasonable assumptions and financial & operational principles/parameters laid down under these Regulations submitted alongwith the MYT petition for determination of Aggregate Revenue Requirement and Tariffs for first year of the control period;

c) Review of control period ending on 31.03.2019 shall also be taken up alongwith the ARR/Tariff petition for the first year of ensuing control period;

d) Trajectory for specific parameters as may be stipulated by the Commission based on submissions made by the Licensee, actual performance data of the Applicants and performance achieved by similarly placed utilities;

e) Annual review of performance shall be conducted vis-à-vis the approved forecast and categorization of variations in performance into controllable factors and uncontrollable factors;

f) Sharing of excess profit or loss due to controllable and uncontrollable factors as per provisions *of these Regulations."*

2.3 Business Plan for the third Control Period

Regarding Business Plan, Regulation 8 of UERC Tariff Regulations, 2018 specifies as follows:

"8. Business Plan

(1) An Applicant shall submit, under affidavit and as per the UERC Conduct of Business Regulations as amended from time to time, a Business Plan by November 30th, 2018, for the Control Period of three (3) financial years from April 1, 2019 to March 31, 2022;

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

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

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

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

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

(v) Trajectory of performance parameters

...

(2) The Applicant shall also submit the details in respect of its manpower planning for the Control Period as part of Business Plan.

(3) The Commission shall scrutinize and approve the business plan after following the due

consultation process."

In accordance with Regulation 8 of the UERC Tariff Regulations, 2018, M/s GIPL submitted the Business Plan for the third Control Period from FY 2019-20 to FY 2021-22. M/s GIPL in its Business Plan Petition and subsequent submissions has submitted the trajectory of Performance parameters, Capitalization Plan and Financing Plan for the third Control Period from FY 2019-20 to FY 2021-22. The Petitioner's submissions and the Commission's analysis on approval of the Business Plan submitted by M/s GIPL for the third Control Period from FY 2019-20 to FY 2021-22 are detailed below:

2.3.1 *Proposed Additional Capitalisation*

With regard to additional capitalisation, the Petitioner has proposed the following additional capitalisation for the third Control Period from FY 2019-20 to FY 2021-22:

Table 2.1: Proposed Additional Capitalisation for the third Control Period

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	Claimed under head
Land	-	-	-	-
Civil Works	1.00	2.00	2.00	Regulation 22
Plant & Machinery (Transmission Line)	7.00	-	-	Regulation 22
Plant & Machinery (Spares)	8.00	10.00	12.00	Regulation 22
Furniture and Fixtures	0.20	-	-	Regulation 22
Office Equipment & Others	0.10	-	-	Regulation 22
Computers	0.01	-	-	Regulation 22
Vehicles	0.25	-	0.10	Regulation 22
Total	**16.56**	**12.00**	**14.10**	

With regard to Additional capitalisation, Regulation 22 of UERC Tariff Regulations, 2018 specifies as follows:

"22. Additional Capitalisation and De-capitalisation

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

   a) *Undischarged liabilities;*

   b) *Works deferred for execution;*

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

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

and

e) *On account of change in law.*

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

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

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

b) *Change in law;*

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

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

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

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

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

h) *In case of transmission and distribution system any additional expenditure on items such* *as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard, equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission or distribution system:*

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

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

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

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

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

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

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

   (iv) *In case a new asset/equipment is issued, then it will be issued at weighted average cost and capitalized respectively, and accordingly, new asset would be created and corresponding entries shall be done in the Books of Accounts.*

In case of de-capitalisation of assets of a generating company or the distribution licensee or the transmission licensee or SLDC, as the case may be, the original cost of such asset as on the date of de-

capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place, duly taking into consideration the year in which it was capitalised."

Further, as the plant was put under commercial operation in the first Control Period, hence, the cut-off date shall be determined as per Regulation 3(21) of MYT Regulations, 2011 which specifies as under:

"'Cut-off Date' means 31st March of the year closing after two years of the year of commercial operation of the project,, and in case the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation."

The Petitioner's plant was put under commercial operation w.e.f. 16.03.2016. Accordingly, as per the aforesaid definition, the cut-off date of the plant works out to 31.03.2019 and proposed expenditure claimed for the third Control Period shall fall under Regulation 22(2) of the UERC Tariff Regulations, 2018.

With regard to the projected additional capitalisation, the Petitioner submitted that the projected civil works for FY 2019-20 to FY 2021-22 are related to main building maintenance, shading, extension of store building. Further, additional capitalisation on account of construction of an additional bay has also been proposed for FY 2019-20.

The Petitioner submitted that no initial spares could be procured due to the burden of remaining stranded plant for more than three years and burden of debt services and vendor payments at the time of CoD as well as during the second Control Period. The Petitioner has requested the Commission to allow 4% of capital cost as initial spares as per Regulation 21(11) of UERC Tariff Regulations, 2018 which it is planning to procure during the third Control Period from FY 2019-20 to FY 2021-22.

With regard to additional capitalisation inclusive of initial spares, the Commission vide its Tariff Order dated 16.05.2017 on approval of the Business Plan and Tariff Petition of the Petitioner for the second Control Period from FY 2016-17 to FY 2018-19, and vide Tariff Order dated 21.03.2018 on Truing up for FY 2015-16 & FY 2016-17, APR for FY 2017-18 and ARR for FY 2018-19 had decided to consider the additional capitalisation at the time of truing up of the respective years based on the actual expenditure as per the audited accounts and subject to the ceiling limit specified under prevailing MYT Regulations. Further, as mentioned earlier, the proposed additional capitalisation falls after cut-off date, hence, the Petitioner will be required to justify the additional capitalisation, if any, in accordance with Regulation 22(2) of the UERC Tariff Regulations, 2018 duly substantiated with the technical justification and supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level alongwith the purchase orders, bills/vouchers for the said work.

Accordingly, the Commission at this stage does not find any reason to approve any additional capitalisation for the third Control Period. The Commission will review the additional capitalisation, if any, based on the audited accounts at the time of truing up in accordance with the UERC Tariff Regulations, 2018 after prudence check.

2.3.2 Financing Plan

The Petitioner submitted that the capital expenditure to be incurred in FY 2019-20, FY 2020-21 and FY 2021-22 are to be financed by a mix of debt and equity in the ratio of 70:30. As mentioned above, the Commission has not considered the additional capitalisation for the third Control Period. However, based on the actual admissible additional capitalization and actual financing, truing up will be done for the purpose of determination of Tariff.

2.3.3 Major shutdown plan for the plant

2.3.3.1 Maintenance plan

The Petitioner submitted that the availability of a generating unit is dependent on the outages considered for the unit, both forced and planned. The well thought & planned maintenance Program will result in the maximum equipment availability and optimization of maintenance costs. The forced outages are minimized by having a robust maintenance plan, the planned outages are necessary for the smooth functioning of the unit with improved reliability & availability. Either or all the following is included in an outage:

- Schedule Preventive Measures.
- Audit History based Maintenance.
- Overall Operational Constraints.

- o Technological Up-gradation.
- o Performance Improvement Measures.
- o Statutory Compliances.
- o Life Sustenance, Extension, Enhancement Actions.

The proposed outage plan for the project during the Control Period is shown in the Tables below:

Table 2.2: Maintenance schedule for FY 2019-20

Month	Gas Turbine / HRSG		Steam Turbine	
	Details	Outage Hours	Details	Outage Hours
Apr, 2019	---	0	-	0
May, 2019	Offline/online water wash	24	-	0
Jun, 2019	---	0	-	0
Jul, 2019	Offline/online water wash	24	-	0
Aug, 2019	---	0	-	0
Sep, 2019	Offline/online water wash	24	-	0
Oct, 2019	---	0	-	0
Nov, 2019	---	0	-	0
Dec, 2019	GT: Offline/online water wash, CI, Baroscopic Inspection& HRSG, Annual Inspection - Hydro test Shutdown: 4 days	96	-	0
Jan, 2020	---	0	-	0
Feb, 2020	Offline/online water wash	24	-	0
Mar, 2020	---	0	-	0
Yearly		**192**	-	**0**

Table 2.3: Maintenance schedule for FY 2020-21

Month	Gas Turbine / HRSG		Steam Turbine	
	Details	Outage Hours	Details	Outage Hours
Apr, 2020	Offline/online water wash	24	-	0
May, 2020	---	0	-	0
Jun, 2020	Offline/online water wash	24	-	0
Jul, 2020	---	0	-	0
Aug, 2020	Offline/online water wash	24	-	0
Sep, 2020	---	0	-	0
Oct, 2020	Offline/online water wash	24	-	0
Nov, 2020	---	0	-	0
Dec, 2020	GT: Baroscopic Inspection & Offline/online water wash, intake air filter replacement & HRSG: Annual Inspection - Hydro test Shutdown: 4 days	96	-	0
Jan, 2021	---	0	-	0
Feb, 2021	Offline/online water wash	24	-	0
Mar, 2021	---	0	-	0
Yearly		**216**		**0**

Table 2.4: Maintenance schedule for FY 2021-22

Month	Gas Turbine / HRSG		Steam Turbine	
	Details	Outage Hours	Details	Outage Hours
Apr, 2021	Offline/online water wash	24	-	0
May, 2021	---	0	-	0
Jun, 2021	Offline/online water wash	24	-	0
Jul, 2021	---	0	-	0
Aug, 2021	Offline/online water wash	24	-	0
Sep, 2021	---	0	-	0
Oct, 2021	Offline/online water wash	24	-	0
Nov, 2021	---	0	-	0
Dec, 2021	GT: Boroscopic Inspection, Offline/online water wash, intake air filter replacement & HRSG: Annual Inspection - Hydro test Shutdown: 4 days	96	-	0
Jan, 2022	---	0	-	0
Feb, 2022	Offline/online water wash	24	-	0
Mar, 2022	---	0	-	0
Yearly		**216**		**0**

2.3.3.2 Trajectory of Performance Parameters

The Petitioner submitted that in light of the maintenance schedule planned for Phase 1, i.e. contracted capacity, as detailed above, the plant is expected to follow the trajectory of performance parameters as detailed in the Table given below:

Table 2.5: Trajectory of performance parameters

Parameters	Unit	2019-20	2020-21	2021-22
		Projected	Projected	Projected
Duration		1st Apr 2019 to 31st Mar 2020	1st Apr 2020 to 31st Mar 2021	1st Apr 2021 to 31st Mar 2022
Number of days		366	365	365
Installed capacity	MW	107	107	107
Aux. (Normative)	%	2.50%	2.50%	2.50%
Availability (Normative)	%	85%	85%	85%
Gross Generation Normative	MU	798.90	796.72	796.72
Auxiliary Consumption	MU	19.97	19.92	19.92
Net Generation Normative	MU	778.93	776.80	776.80

The Commission has accepted the submissions made by the Petitioner for maintenance schedule and corresponding shutdown hours of its plant. However, the Petitioner is directed to have proper communication well in advance with both Distribution Licensee as well Transmission Licensee in the State so as to avoid any dispute that may occur due to disturbance in the demand/ supply of power of Distribution Licensee and also due to transmission capacity constraint or any other related issues with the Transmission Licensee.

In this regard, the Commission would like to advise the Petitioner and the Respondent to finalise the said Maintenance plan amongst them so as to ensure that supply position in the State is not impacted because of the same and submit the same to the Commission within two months from the date of the Order.

3 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2017-18

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

"12. Annual Performance Review

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

(2) The Applicant shall under affidavit and as per the UERC (conduct of Business) Regulations 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 filings, the Petitioner has submitted the data related to its expenses and revenues for FY 2017-18 based on the audited annual accounts and has, accordingly, requested the Commission to carry out the truing up for FY 2017-18 alongwith the sharing of gains and losses. The Petitioner submitted that the Tariff formats submitted by it are based on the actual position of the capitalisation and the revenue expenditure as per the books of accounts.

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

Regulation 14 of the UERC Tariff Regulations, 2015 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 the UERC Tariff Regulations, 2015, these are controllable expenses. Similarly, in accordance with the UERC Tariff Regulations, 2015, the variation in working capital requirement is also a controllable factor. However, as discussed in Tariff Order dated 16.05.2017, 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 intends to forego the same in case UPCL does not charge rebate on their energy bills. 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.

3.1.1 Physical Parameters

3.1.1.1 NAPAF

The Commission vide its Order dated 08.02.2016, on approval of PPA for the Petitioner's plant, approved the definition of NAPAF, as per Regulation 3(54) of the UERC Tariff Regulations, 2015, as follows:

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

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. Moreover, as the Petitioner's plant was covered under the PSDF scheme during FY 2015-16 and FY 2016-17, therefore, during the currency of the Scheme NAPAF and actual PAFM of the Petitioner's plant did not have any implication since the recovery of the AFC was allowed in accordance with the ceiling rate provided under the Scheme. Accordingly, the Commission is of the view that the NAPAF of 85% approved for FY 2015-16 & FY 2016-17 in the Tariff Order dated 16.05.2017 for the second Control Period shall continue to be applicable without any change for FY 2017-18.

3.1.1.2 Energy Generation and Saleable Primary Energy

The Commission in its MYT 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 2.5% has been considered. Accordingly, applying the Plant Load Factor (PLF) of 85% as discussed hereto above and reducing the auxiliary consumption, the saleable energy works out to 776.80 MU for FY 2017-18.

M/s GIPL in its submission has submitted the actual saleable energy for FY 2017-18 as 561.20 MU which in turn translates to a PLF of 61.33%. 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 2017-18. However, during the year, the actual Gross Generation was 561.20 MUs and the Plant Load Factor which is determined based on output was 61.33%. The Petitioner submitted that this was primarily due to restrictions imposed by Uttarakhand Power Corporation Ltd (UPCL) on power offtake due to which the loss in gross generation of power during FY 2017-18 was 215.60 MUs. The Petitioner further submitted that if the loss of generation is taken into account then the PLF shall be at its normal level of 85%. The Petitioner further submitted that, similarly, from April, 2018 to Sept 2018, the actual Gross Generation of Power has been 200.68 MUs and the Plant Load Factor was 51.67% and if units not generated due to back-down are also considered then the PLF shall be at its normal level of 85% and match up the Normative Plant Availability Factor.

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 2017-18. M/s GIPL has also not sought any deviation in the approved design energy for FY 2017-18. Accordingly, the Commission decides to maintain the design energy and saleable primary energy as considered in the MYT Order dated 16.05.2017 for the Petitioner's plant.

3.1.2 Financial Parameters

3.1.2.1 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. 401.02 Crore as on 01.04.2017. The Commission, vide its Tariff Order dated 21.03.2018 had approved the opening GFA and net additional capitalisation amounting to Rs. 388.96 Crore and Rs. 12.06 Crore respectively for FY 2016-17 for the contracted capacity of 107 MW. Accordingly, the Commission has considered the approved closing GFA, i.e. Rs. 401.02 Crore (Rs. 388.96 Crore *plus* Rs. 12.06 Crore) for FY 2016-17 as opening GFA for the purpose of truing up for FY 2017-18.

3.1.2.2 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. 0.01 Crore and Rs. 0.03 Crore pertaining to Computers and Vehicles respectively for FY 2017-18 in accordance with Regulation 22(1) of UERC Tariff Regulations, 2015. The Commission approves the additional capitalisation of Rs. 0.04 Crore as claimed by the Petitioner for the purpose of truing up of FY 2017-18 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 already claimed the additional capitalisation pertaining to commissioning of GT-1 for the contracted capacity only. Accordingly, the Petitioner has 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 2017-18 is as follows:

Table 3.1: Approved Gross Fixed Assets for FY 2017-18 (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	0.01	0.03
Vehicles	0.47	0.03	0.50
Total	**401.02**	**0.04**	**401.06**

3.1.2.3 *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 31.03.2017 as approved by the Commission vide its Tariff Order dated 21.03.2018 while approving the truing up for FY 2016-17. The Commission has considered the same Debt-Equity Ratio for GFA considered as on 01.04.2017.

Further, with regard to the additional capitalisation claimed for FY 2017-18, the Petitioner submitted that the expenses for the procurement of assets were done through the revenues of the Company. Accordingly, the Commission has considered the financing of additional capitalisation incurred for FY 2017-18 in the ratio of 70:30 in accordance with the UERC Tariff Regulations, 2015.

Capital structure for the GFA and additional capitalisation for FY 2017-18 is as follows:

Table 3.2: Financing for capitalisation for FY 2017-18

Particular	Opening Capital Structure as on 01.04.2017		Addition during year		Closing Capital Structure as on 31.03.2018	
	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%
Debt	325.79	81.24	0.03	70.00	325.82	81.24
Equity	75.23	18.76	0.01	30.00	75.25	18.76
Total	**401.02**	**100.00**	**0.04**	**100.00**	**401.06**	**100.00**

3.1.2.4 *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 2017-18 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. 401.04 Crore for FY 2017-18 by applying the weighted average rate of depreciation of 5.06%.

Details of the depreciation, as approved in Tariff Order dated 16.05.2017, claimed by the Petitioner and trued up for FY 2017-18 is as follows:

Table 3.3: Depreciation approved for FY 2017-18 (Rs. Crore)

Particular	Approved in Tariff Order dated 16.05.2017	Claimed by Petitioner	Approved after truing up
Opening Capital Cost	388.96	401.02	401.02
Addition during year	0.00	0.04	0.04
Closing Capital Cost	388.96	401.06	401.06
Average Capital Cost	388.96	-	401.04
Weighted Average rate of Depreciation	5.05%	-	5.06%
Depreciation	**19.63**	**20.28**	**20.28**

3.1.2.5 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 2017-18. 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 2017-18 is given in the Table below:

Table 3.4: Return on Equity approved for FY 2017-18 (Rs. Crore)

Particular	Approved in Tariff Order dated 16.05.2017	Claimed by Petitioner	Approved after truing up
Opening Equity	75.30	75.23	75.23
Addition during the year	0.00	0.00	0.01
Closing Equity	75.30	75.23	75.24
Rate of Return on Equity	15.50%	15.50%	15.50%
Return on Equity	**11.67**	**11.66**	**11.66**

3.1.2.6 *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. 37.89 Crore for FY 2017-18 for the purpose of truing up based on the weighted average rate of interest of 12.85% p.a. Further, the Petitioner has not considered any amount of addition to normative loan corresponding to additional capitalisation of Rs. 0.04 Crore for FY 2017-18.

With regard to the claimed weighted average rate of interest, the Commission observed that the weighted average rate of interest has increased substantially from 10.21% p.a. for FY 2016-17 to 12.85% for FY 2017-18. In this regard, the Petitioner submitted that the Commission had worked out the weighted average rate of interest of 10.21% p.a. for FY 2016-17 based on the average of opening and closing balances of long term loans of the company. However, the restructuring of the accounts, i.e. transfer of an amount of Rs. 371.73 Crore to unsustainable debt effective from 25.11.2016 was not accounted for in the financial accounts for FY 2016-17 as the required documentation got completed in May, 2017 and the appropriate entries giving effect to the order of segregation of long term loan between sustainable and unsustainable was passed on 23.05.2017 but was effective from 25.11.2016. The Petitioner submitted that the weighted average rate of interest works out to 12.15% for FY 2016-17 after adjusting unsustainable long term loans.

The Commission has examined the Indian Banks' Association letter dated 22.05.2017 vide which Indian Banks' Association has segregated entire long term debt between sustainable loan and unsustainable loan based on the contracted and un-contracted capacity respectively considering the fact that PPA for only 50% of the Plant's capacity has been executed till date. Accordingly, sustainable and unsustainable debt works out to Rs. 417.00 Crore and Rs. 371.73 Crore respectively as per Indian Banks' Association letter dated 22.05.2017. Further, the Commission has also examined audited annual accounts & Trial Balance for FY 2017-18 as well as the submissions made by the Petitioner and observed that the Petitioner has submitted sustainable opening debt and closing debt amounting to Rs. 389.34 Crore and Rs. 338.33 Crore respectively in Form 9.2, i.e. "Calculation of Weighted Average Interest Rate of Interest on Actual Loans", whereas the sustainable opening debt works out to Rs. 417.00 Crore as per Indian Banks' Association letter dated 22.05.2017 and closing debt works out to Rs. 344.88 Crore as per audited accounts for FY 2017-18. With regard to variation in opening and closing debt for FY 2017-18, 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.

In the matter, the Commission directed the Petitioner to submit the loan statements for FY 2017-18 and bank document/Loan document for respective loan account. In reply, the Petitioner submitted the loan statements for FY 2017-18 showing interest charged by the bank. The Commission has observed that the opening balances, closing balances and interest charges on the long term borrowings reconciles with the balances given in the Bank's certificate and audited annual accounts for FY 2017-18. Accordingly, the Commission has worked out the weighted average rate of interest based on the average of opening and closing sustainable long term loans as per Indians' Bank Association letter dated 25.05.2017 & audited annual accounts for FY 2017-18 and interest charged on loan term loans.

The Petitioner submitted that the actual interest for FY 2017-18 is Rs. 47.77 Crore. The Commission observed that the total interest amounting to Rs. 51.13 Crore has been charged to the P&L Statement for FY 2017-18. In this regard, the Petitioner was directed to submit the reasons for variation. The Petitioner clarified that interest of Rs. 51.13 Crore charged to P&L account is inclusive of interest of Rs. 4.36 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 on the short-term borrowings. Accordingly, the Commission has considered interest of Rs. 46.77 Crore 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 sustainable debt of Rs. 417.00 Crore and Rs. 344.88 Crore respectively and considering the interest paid on long term borrowings during the year, the weighted average rate of interest works out to 12.28% for FY 2017-18. The Commission has also observed that the weighted average rate of interest has increased substantially to 12.28% for FY 2017-18 against the approved weighted average rate of interest of 11.15% for FY 2015-16. In this regard, there is all the more reason for the Petitioner to re-negotiate the rate of interest being charged by the banks on the loans disbursed. Accordingly, the Petitioner is directed to approach the bankers to reduce the rate of interest based on the prevailing rates.

Furthermore, the Petitioner has claimed Bank Charges amounting to Rs. 1.35 Crore for FY 2017-18 as finance charges. The Commission observed from the submissions of the Petitioner that Bank Charges claimed by the Petitioner are inclusive of Rs. 0.90 Crore towards Review Charges. In this regard, the Petitioner submitted that the Review charges of Rs. 0.90 Crore pertains to the review of Petitioner's Loan account as the project is a stressed asset and due to un-timely repayments and increasing burden of debts with low recovery in fixed cost, the lending bankers has degraded the account rating to CR6 and, hence, Bank reviews Petitioner's Loan account in every six month. In the matter, it is worth mentioning that such charges cannot be passed on to the consumers of the State due to inability of the Petitioner to pay interest and debt amount in a time bound manner whereas the Commission vide its Tariff Order dated 16.05.2017 and 21.03.2018 has already allowed the interest on normative loan in accordance with the prevailing MYT Regulations for the contracted capacity of the Petitioner's plant. Hence, the Commission is of the view that Review charges cannot be allowed as part of Finance charges. Accordingly, Rs. 0.45 Crore has only been allowed as finance charges for FY 2017-18.

The Commission has considered the net opening normative loan of Rs. 304.89 Crore and repayment has been considered equal to the admissible depreciation, i.e. Rs. 20.28 Crore. Further, as mentioned earlier under Para 3.1.2.3 of this Order, additional capitalisation for FY 2017-18 of Rs. 0.04 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. 0.03 Crore whereas the Petitioner has not considered any addition to the normative loan for the purpose of determination of interest on normative loan.

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

Table 3.5: Interest on Normative Loan for FY 2017-18 (Rs. Crore)

Particular	Approved in Tariff Order dated 16.05.2017	Claimed by Petitioner	Approved after truing up
Gross Opening Normative Loan	313.66	325.79	325.79
Cumulative Repayment	20.49	20.82	20.81
Net Opening Normative Loan	293.17	304.97	304.98
Additional Capitalisation	0.00	0.00	0.03
Normative Repayment of loan	19.63	20.28	20.28
Net Closing Normative Loan	273.53	284.69	284.72
Average Normative Loan	283.35	294.83	294.85
Rate of Interest	11.15%	12.85%	12.28%
Normative Interest	**31.59**	**37.89**	**36.20**
Add: Financial charges	0.00	1.35	0.45
Total Interest and Finance Charges	**31.59**	**39.24**	**36.65**

3.1.2.7 Operation & Maintenance (O&M) Expenses

3.1.2.7.1 Truing up of O&M Expenses for FY 2017-18

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. 34.61 Crore FY 2017-18 for the contracted capacity of the Petitioner's Plant. The Petitioner has submitted that the actual O&M expense of Rs. 17.96 Crore has been incurred during FY 2017-18.

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 and has approved 50% of the capital cost for 107 MW capacity of the Plant and the balance capacity is not being utilised and there is no additional revenue from the balance plant. 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 2017-18, actual O&M expenses are Rs. 17.93 Crore inclusive of the expenses of Rs. 2.43 Crore pertaining to 'Stamp Duty & ROC fee for increase in capital'. The Commission has observed from the Indians' Bank Association letter dated 22.05.2017 that Rs. 8.38 Crore of unsustainable loan has been converted to the equity, share capital. Further, as per Note-3, i.e. Share Capital, of audited annual accounts for FY 2017-18, Redeemable cumulative optionally convertible preference share of Rs. 250.00 Crore has been issued in favour of Bank of

Baroda for unsustainable debt portion pertaining to balance capacity/un-contracted capacity for which no contract has been executed with UPCL. Accordingly, the Commission is of the view that 'Stamp Duty & ROC fee for increase in Capital' expenses are incurred for issuing share capital pertaining to un-contracted capacity, therefore, the same cannot be allowed to be recovered from the consumers of the State. Therefore, O&M expenses net of 'Stamp Duty and ROC Fee expenses' amounting to Rs. 15.51 Crore has been approved by the Commission for FY 2017-18.

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 3.1, O&M expenses have been considered as controllable factor, accordingly, the Commission has approved the total O&M expenses for FY 2017-18 after sharing of gain/loss in accordance with the Regulations as shown in the Table below:

Table 3.6: O&M Expenses Approved After Sharing of Gains and Losses for FY 17-18 (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
17.96	15.51	34.61	19.10	12.74	28.25

3.1.2.8 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 provision 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 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.

3.1.2.9 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 other income amounting to Rs. 1.53 Crore as per audited annual accounts for FY 2017-18. The Commission has approved the actual non-tariff income of Rs. 1.53 Crore for FY 2017-18 as per the audited accounts after prudence check.

3.1.2.10 Annual Fixed Charges (AFC) for FY 2017-18

Based on the above analysis, the Commission has worked out the approved figures of AFC for FY 2017-18. The summary of the same is as follows:

Table 3.7: Annual Fixed Charges for FY 2017-18 approved by the Commission (Rs. Crore)

Particulars	Tariff Order dated 16.05.2017	Claimed in Petition	Approved/Trued up
Depreciation	19.63	20.28	20.28
Interest on Loan & Financial Cost	31.59	39.24	36.65
Return on Equity	11.67	11.66	11.66
O&M Expenses	34.61	17.96	28.25
Interest on Working Capital	0.00	0.00	-
Less: Non-Tariff Income	0.00	1.53	1.53
Total	**97.51**	**87.61**	**95.30**

Accordingly, trued-up AFC for FY 2017-18 works out to Rs. 95.30 Crore. The Petitioner has submitted that there is a surplus of Rs. 6.44 Crore based on the actual revenue from sale of power, claimed AFC & Energy charges. Further, the Petitioner has 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 3.1.2.7 of this Order in accordance with the prevailing regulations. Further, true up of Energy charges shall be carried out by the Commission on the finalisation of the Gross SHR as discussed in subsequent Paras of this Order. Furthermore, the trued up AFC for FY 2017-18 works out to Rs. 95.30 Crore against the approved AFC of Rs. 97.51 Crore. Accordingly, the Commission has approved a surplus of Rs. 2.20 Crore for FY 2017-18. The surplus for FY 2017-18 with carrying cost works out to Rs. 2.68 Crore based on the interest rate of 13.75%, which has been considered by the Commission in the ARR of FY 2019-20.

3.1.2.11 *Capacity Charge and Energy Charge Rate (ECR) for FY 2017-18*

Based on the above analysis for all the heads of expenses of AFC, the Commission after truing up, has approved the Annual Fixed Charges (AFC) of the Petitioner attributable to its beneficiary for FY 2017-18.

Regulation 49 of UERC Tariff Regulations, 2015 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) subject to ceiling of (AFC/12)

CC2= (AFC/6) (PAF2 / NAPAF) subject to ceiling of ((AFC/6) – CC1)

CC3= (AFC/4) (PAF3 / NAPAF) subject to ceiling of ((AFC/4) – (CC1+CC2))

CC4= (AFC/3) (PAF4 / NAPAF) subject to ceiling of ((AFC/3) – (CC1+CC2+CC3))

CC5= (AFC x 5/12) (PAF5 / NAPAF) subject to ceiling of ((AFC x 5/12) – (CC1+CC2+CC3+CC4))

CC6= (AFC/2) (PAF6 / NAPAF) subject to ceiling of ((AFC/2) – (CC1+CC2+CC3+CC4+CC5))

CC7= (AFCx7/12) (PAF7/NAPAF) subject to ceiling of ((AFCx7/12)– (CC1+CC2+CC3+ CC4+CC5+CC6))

CC8=(AFCx2/3) (PAF8/NAPAF) subject to ceiling of ((AFCx2/3)– (CC1+CC2+CC3+CC4+CC5+CC6 +CC7))

CC9=(AFCx3/4) (PAF9/NAPAF) subject to ceiling of ((AFCx3/4))– (CC1+CC2+CC3+ CC4+CC5+CC6+ CC7+CC8))

CC10=(AFCx5/6) (PAF10/NAPAF) subject to ceiling of ((AFCx5/6)– (CC1+CC2+CC3+ CC4+CC5+CC6+ CC7+CC8+CC9))

CC11=(AFCx11/12) (PAF11/NAPAF) subject to ceiling of ((AFCx11/12)– (CC1+CC2+CC3+CC4 +CC5+CC6+CC7+CC8+CC9+CC10))

CC12=(AFC) (PAFY/NAPAF) 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.

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

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

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

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

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

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

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

(4) Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 47(2).

(5) The energy charge shall cover the primary fuel cost and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel price adjustment). Total Energy charge payable to the generating company for a month shall be:

(Energy charge rate in Rs./kWh) 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 x LPPF x 100 / {CVPF x (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 Tariff Order dated 16.05.2017 had directed UPCL to appoint an expert Committee/Consultant for establishing the design heat rate of the Petitioner's plant and submit the report on the same within 3 months. The Petitioner, through the said Order, was also directed to provide the relevant documents/certificate to UPCL for the same.

In this regard, the Petitioner vide its letter dated 22.09.2017 submitted that the compliance of direction for determination of SHR should have been done by 16.08.2017 and requested the Commission to issue necessary direction to UPCL. Subsequently, the Petitioner requested the Commission for provisional approval of energy charges at actual till the finalisation of SHR. In the matter, the Commission vide its Suo-Moto Order dated 28.11.2017, provisionally allowed the Petitioner to recover energy charges at actual gas bills raised by the gas supplier till the finalisation of SHR and also directed UPCL to comply with the directions of the Commission as per the Tariff Order dated 16.05.2017, with respect to finalization of design SHR and submit the report for approval of the Commission.

In the matter, UPCL vide its letter dated 10.07.2018 submitted its report on the SHR of the gas based Power plant of M/s GIPL and M/s SEPL situated at Kashipur. The Commission sought comments from both the generators on the report submitted by UPCL, and based on the submission received from the generators, the Commission is in the process of analyzing and finalizing the Gross SHR of both the plants.

In the light of the above discussion, it is worthwhile to mention that, for computing the Energy Charges payable to the generator, Gross Station Heat Rate is required to be established for the contracted capacity of the generator's plant.

Accordingly, the finalisation of the Gross SHR is under process and the Energy Charges shall be trued up once the Gross SHR is finalised and approved by the Commission and, accordingly, adjustment required, if any, shall be given effect to in the subsequent Order.

4 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on APR for FY 2018-19

4.1 Annual Performance Review

The Commission, vide its Tariff Order dated 16.05.2017, approved the Tariff for the Petitioner for the second Control Period, i.e. FY 2016-17 to FY 2018-19. Regulation 12(3) of the UERC Tariff Regulations, 2015 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, 2015 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 16.05.2017, on approval of Business Plan and MYT Petition for the second Control Period from FY 2016-17 to FY 2018-19, had approved the AFC for the second Control Period based on the approved capital cost as on COD, i.e. 16.03.2016. The Petitioner, in the present Petition, has proposed revision of estimates for FY 2018-19 based on the audited accounts for FY 2017-18.

The Commission, in this Order, has carried out the Truing up for FY 2017-18 in accordance with the UERC Tariff Regulations, 2015. In accordance with Regulation 12(3) of the UERC Tariff Regulations, 2015, the scope of annual performance review is limited to the revision of estimates for the 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 2018-19 based on the audited accounts for that year and give effect on this account in the AFC of FY 2020-21.

Further, the Commission observed that the Petitioner has projected a substantial increase in the O&M expenses for FY 2018-19 as compared to the actual claimed for truing up of FY 2017-18. The Petitioner should strive to incur expenditure prudently and should not attempt to incur wasteful expenditure upto normative level. In this regard, the Commission directs the Petitioner to plan and execute its expenses relating to operation and maintenance of the plant in an optimum manner and provide a detailed methodology for the same in the next tariff proceedings.

5 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on MYT for the third Control Period

With regard to Multi Year Tariff, Regulation 10 of UERC Tariff Regulations, 2018 specifies as follows:

"10. MYT Petition for the Control Period

(1) xxx

(2) xxx

(3) xxx

(4) After examining the application, the Commission shall either-

a) Pass an order approving the forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges for the Control Period, subject to such modifications and conditions as it may specify in the said Order; or

b) Reject the application for reasons to be recorded in writing.

Provided that the applicant shall be given a reasonable opportunity of being heard before rejecting his application.

(5) In its MYT Order, the Commission shall specify the variables included in the Aggregate Revenue Requirement and expected revenue from tariff and charges of the applicant that shall be reviewed by the Commission as part of the Annual Performance Review;

Provided that such variables shall be limited to the major items of cost and revenue forecast of the applicant that in the Commission's opinion could have a material impact on the cost of supply of electricity to consumers in the State over the Control Period:

Provided further that the variables, as may be stipulated by the Commission under Regulations below, shall form part of the Annual Performance Review, unless exempted by the Commission from such review in its Order.

Accordingly, in accordance with the aforesaid Regulations, the Commission, based on the financial and physical parameters, has approved the Annual Fixed Charges for each year of the third Control Period from FY 2019-20 to FY 2021-22 based on the approved capital cost for the respective year.

5.1 Physical Parameters

5.1.1 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 PPA for the Petitioner's plant has approved the definition of 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 the second Control Period in the Tariff Order dated 16.05.2017 shall continue to be applicable for the third Control Period without any change.

5.1.2 Design Energy, Auxiliary Energy Consumption and Saleable Primary Energy

The Petitioner in its Petition has projected energy generation from its 225 MW CCPP in line with the energy generation approved by the Commission in its Tariff Order dated 16.05.2017 for the second Control Period.

Accordingly, the Commission approves saleable primary energy net off auxiliary consumption as 776.80 MUs for FY 2019-20 to FY 2021-22.

5.2 Financial Parameters

5.2.1 Additional Capitalisation for the third Control Period

As discussed under the Chapter of Business Plan for the third Control Period, the Commission has decided to consider the additional capitalisation at the time of truing up of the respective years based on the audited accounts and as per prevailing Regulations as amended from time to time. Accordingly, proposed additional capitalisation for the third Control Period has been considered as nil, however, the same will be reviewed at the time of truing up of the respective years.

In the present Petition, the Petitioner has not claimed any additional capitalisation for FY 2018-19. Therefore, GFA approved as on 31.03.2018 has been considered as opening GFA for FY 2019-20. Accordingly, GFA worked out as on 31.03.2018, i.e. Rs. 401.06 Crore after considering the additional capitalisation approved for FY 2017-18 has been considered as opening GFA for FY 2019-20. Further, the same shall be reviewed at the time of truing up of the respective financial year of the third Control Period based on the audited annual accounts.

5.2.2 *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 from FY 2019-20 to FY 2021-22 based on the opening capital cost and proposed additional capitalisation for the respective financial year of the third Control Period. As mentioned earlier, the Commission has not considered the proposed additional capitalisation and the same, if any, shall be approved at the time of truing up of the respective financial year after prudence check. Accordingly, the Commission has determined the depreciation based on the admissible GFA for the third Control Period. Details of the depreciation claimed and approved for the third Control Period is as follows:

Table 5.1: Depreciation approved by the Commission for the third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Particulars	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Opening Capital Cost	401.06	401.06	417.62	401.06	429.62	401.06
Addition during year	16.56	0.00	12.00	0.00	14.10	0.00
Closing Capital Cost	417.62	401.06	429.62	401.06	443.72	401.06
Average Capital Cost	-	401.06	-	401.06	-	401.06
Weighted Average rate of Depreciation	-	5.06%	-	5.06%	-	5.06%
Depreciation	**21.15**	**20.28**	**21.75**	**20.28**	**22.46**	**20.28**

5.2.3 *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 proposed additional capitalisation for the third Control Period in its Business Plan Petition amounting to Rs. 16.65 Crore, Rs. 12.00 Crore and Rs. 14.10 Crore for FY 2019-20, FY 2020-21 and FY 2021-22 respectively. However, the Petitioner has not considered proposed additional capitalisation while claiming return on equity for the third Control Period.

As discussed earlier, the additional capitalisation will be approved based on the actual expenditures at the time of truing up of the respective years. Accordingly, the Commission has worked out the Return on Equity based on the opening GFA of the respective financial years of the third Control Period. Details of the Return on Equity claimed and approved is as follows:

Table 5.2: Return on Equity approved by the Commission for the third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Particular	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Opening Equity	75.23	75.23	75.23	75.23	75.23	75.23
Addition during the year	0.00	0.00	0.00	0.00	0.00	0.00
Closing Equity	75.23	75.23	75.23	75.23	75.23	75.23
Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	**11.66**	**11.66**	**11.66**	**11.66**	**11.66**	**11.66**

5.2.4 *Interest and Finance Charges*

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

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

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

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

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

...

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

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available 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 considered the net opening normative loan balance of Rs. 264.42 Crore for FY 2019-20. The Petitioner has not considered any addition to normative loan corresponding to the proposed additional capitalisation for the third Control Period. Further, repayment of normative loan has been considered equivalent to the depreciation claimed by the Petitioner. Furthermore, the Petitioner has considered the weighted average rate of interest as claimed for FY 2017-18, i.e. 12.85%.

The Commission has considered the closing loan balance of FY 2017-18 as opening loan balance for FY 2018-19. The Commission has considered the depreciation for FY 2018-19 as the normative repayment for the year. The Commission has considered the closing loan balance for FY 2018-19 as the opening loan balance for FY 2019-20. As discussed under the Chapter of Business Plan for the third Control Period, the Commission has decided to approve the additional capitalisation on actual basis, therefore, the Commission has not considered any addition to loan during each year of the third Control Period. The Commission has considered the normative repayment equivalent to the approved depreciation for each year of the third Control Period.

Further, as discussed under Para 3.1.2.6 of this Order, the entire loan has been bifurcated into sustainable loan and unsustainable loan. With regard to restructuring/re-financing of debt, Regulation 27(7) of UERC Tariff Regulations, 2018 specifies as follows:

> *"(7) The Generating Company or the Transmission Licensee or the Distribution Licensee, or the SLDC as the case may be, shall make every effort to re-finance the loan as long as it result in net saving on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net saving on interest shall be shared between beneficiaries and Generating Company or the Transmission Licensee or the Distribution Licensee, or the SLDC as the case may be, in the ratio of 1:2."*

In the present case, the Commission has observed that the restructuring/re-financing of the loans has been executed by the generator so that debt servicing corresponding to contracted capacity can be done by deferring the debt servicing related to the un-contracted capacity. In this regard, the relevant extract of the Indian Banks' Association letter dated 22.05.2017 as submitted by the Petitioner is as follows:

> *"8. The OC has noted that the company has a plant of 225 MW capacity and PPA for 50% of the capacity of the plant. The resolution plan has been prepared factoring this situation. The OC has*

further noted that the company expects to tie-up PPA for further capacity in future years and ramp up its production. This would be significant upside. Lenders need to follow this up with the Company."

As discussed in Para 3.1.2.6 of this Order, there is all the more reason for the Petitioner to re-negotiate the rate of interest being charged by the banks on the loans disbursed. Accordingly, at present the Commission is of the view to consider the weighted average rate of interest of 12.20% provisionally for the third Control Period as has been approved by the Commission for the other gas based generator in the State, namely Sravanthi Energy Private Limited, and the same shall be reviewed at the time of truing up of the respective financial year. The Commission once again directs the Petitioner to approach the bankers to negotiate the rate of interest. Accordingly, the Commission has determined the interest on loan by applying the interest rate of 12.20% on the average loan balance for each year of the third Control Period from FY 2019-20 to FY 2021-22.

Further, the Petitioner has claimed Bank charges amounting to Rs. 2.29 Crore each for the respective financial years of the third Control Period. The Commission has decided to provisionally approve the Bank Charges for the third Control Period equivalent to the Bank Charges approved for FY 2017-18. However, the same shall be trued up based on the actual audited accounts for the respective years.

Accordingly, based on the above discussion, the Interest and Finance charges approved by the Commission for the third Control Period from FY 2019-20 to FY 2021-22 are as shown in the Table given below:

Table 5.3: Interest on Loan approved by the Commission for the third Control Period from FY 2019-20 to FY 2021-22 (Rs. Crore)

Particulars	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Allowable	Claimed	Allowable	Claimed	Allowable
Gross Opening Normative Loan	325.79	325.82	325.79	325.82	325.79	325.82
Cumulative Repayment	61.37	61.38	82.52	81.66	104.27	101.94
Net Opening Normative Loan	264.42	264.44	243.27	244.16	221.52	223.88
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00	0.00
Normative Repayment of loan	21.15	20.28	21.75	20.28	22.46	20.28
Net Closing Normative Loan	243.27	244.16	221.52	223.88	199.07	203.59
Average Normative Loan	253.84	254.30	232.40	234.02	210.29	213.74
Rate of Interest	12.85%	12.20%	12. 85%	12.20%	12.85%	12.20%
Normative Interest	**32.62**	**31.02**	**29.86**	**28.55**	**27.02**	**26.08**
Add: Finance Charges	2.29	0.45	2.29	0.45	2.29	0.45
Interest and Finance Charges	**34.91**	**31.47**	**32.15**	**29.00**	**29.31**	**26.53**

5.2.5 *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 claimed and allowed by the Commission for the third Control Period from FY 2019-20 to FY 2021-22 are as follows:

Table 5.4: O&M expenses approved by the Commission for FY 2019-20 to FY 2021-22
(Rs. Crore)

Particular	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expense	39.49	39.50	42.20	42.20	45.10	45.09

However, the Petitioner is cautioned to exercise due prudence and diligence in incurring the O&M expenses. If during truing up exercise, the same is found unreasonable, the Commission will disallow the same.

5.2.6 *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 given the provision of getting the payment from UPCL without deduction of applicable rebate if the Petitioner forgoes Interest on Working Capital in the interest of consumers of the State by reduction of tariff. Hence, the Petitioner relinquished Interest on Working Capital for the purpose of computation of Annual Fixed charges.

As discussed in Chapter 3 of this Order and methodology adopted in the Tariff Order dated 16.05.2017, the Commission has not considered any interest on working capital while approving the AFC for the third Control Period from FY 2019-20 to FY 2021-22.

5.2.7 *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. 1.19 Crore for each financial year of the third Control Period from FY 2019-20 to FY 2021-22. In the absence of any yardstick for estimating the non-tariff income of the Petitioner, the Commission provisionally accepts the same for the Control Period. However, the same shall be trued up based on the actual audited accounts for the respective year.

5.2.8 Annual Fixed Charges for the third Control Period from FY 2019-20 to FY 2021-22

In accordance with the UERC Tariff Regulations, 2018, the Annual Fixed Charge (AFC) for the third Control Period as claimed and approved by the Commission is shown in the Table below:

Table 5.5: Annual Fixed Charges approved by the Commission for FY 2019-20 to FY 2021-22 (Rs. Crore)

Annual Fixed Charges	FY 2019-20		FY 2020-21		FY 2021-22	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	21.15	20.28	21.75	20.28	22.46	20.28
Interest on Loan	32.62	31.02	29.86	28.55	27.02	26.08
Bank Charges	2.29	0.45	2.29	0.45	2.29	0.45
Return on Equity	11.66	11.66	11.66	11.66	11.66	11.66
O&M Expenses	39.49	39.50	42.20	42.20	45.10	45.09
Interest on Working Capital	0.00	0.00	0.00	0.00	0.00	0.00
Less: Non-Tariff Income	1.19	1.19	1.19	1.19	1.19	1.19
AFC	**106.01**	**101.73**	**106.57**	**101.96**	**107.34**	**102.37**
True up impact with carrying cost for FY 2017-18	0.00	(2.68)	0.00	0.00	0.00	0.00
Total Annual Fixed charges	**106.01**	**99.05**	**106.57**	**101.96**	**107.34**	**102.37**

5.2.9 *Annual Fixed Charges, Capacity Charge and Energy Charge Rate (ECR) for FY 2019-20, FY 2020-21 and FY 2021-22*

Based on the above analysis for all the heads of expenses of AFC, the Commission has approved the Annual Fixed Charges (AFC) of the Petitioner for the third Control Period 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) subject to ceiling of (AFC/12)

CC2= (AFC/6) (PAF2 / NAPAF) subject to ceiling of ((AFC/6) – CC1)

CC3= (AFC/4) (PAF3 / NAPAF) subject to ceiling of ((AFC/4) – (CC1+CC2))

CC4= (AFC/3) (PAF4 / NAPAF) subject to ceiling of ((AFC/3) – (CC1+CC2+CC3))

CC5= (AFC x 5/12) (PAF5/NAPAF) subject to ceiling of ((AFC x 5/12) – (CC1+CC2+CC3+CC4))

CC6= (AFC/2) (PAF6/NAPAF) subject to ceiling of ((AFC/2) – (CC1+CC2+CC3+CC4+CC5))

CC7= (AFCx7/12) (PAF7/NAPAF) subject to ceiling of ((AFCx7/12)– (CC1+CC2+CC3+ CC4+CC5+CC6))

CC8=(AFCx2/3) (PAF8/NAPAF) subject to ceiling of ((AFCx2/3)– (CC1+CC2+CC3+CC4+CC5+CC6 +CC7))

CC9=(AFCx3/4) (PAF9/NAPAF) subject to ceiling of ((AFCx3/4))– (CC1+CC2+CC3+ CC4+CC5+CC6+ CC7+CC8))

CC10=(AFCx5/6) (PAF10/NAPAF) subject to ceiling of ((AFCx5/6)– (CC1+CC2+CC3+ CC4+CC5+CC6+ CC7+CC8+CC9))

CC11=(AFCx11/12) (PAF11/NAPAF) subject to ceiling of ((AFCx11/12)–(CC1+CC2+CC3+CC4 +CC5+CC6+CC7+CC8+CC9+CC10))

CC12=(AFC) (PAFY/NAPAF) 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.

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

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

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

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

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

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

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

(4) Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 47(2).

(5) The energy charge shall cover the primary fuel cost and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel price adjustment). Total Energy charge payable to the generating company for a month shall be:

(Energy charge rate in Rs./kWh) 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 x LPPF x 100 / {CVPF x (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 the Energy charges, as discussed in Chapter-3 and suo-moto Order dated 28.11.2017, the Petitioner is provisionally allowed to recover energy charges at actual gas bills raised by the gas supplier till the finalisation of Gross SHR for the Petitioner's plant. However, the ECR shall be reviewed based on the approved Gross SHR and, accordingly, adjustment required, if any, shall be given effect to in the subsequent Order.

(Subhash Kumar)
Chairman