

# **Order**

**On**

**Approval of Business Plan and Multi  
Year Tariff Petition**

**For**

**M/s Sravanthi Energy Pvt Ltd.**

**For**

**Fourth Control Period  
(FY 2022-23 to FY 2024-25)**

**March 31, 2022**

**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.: 45 of 2021**

**And**

**Petition No.: 46 of 2021**

**In the Matter of:**

Petition filed by M/s Sravanthi Energy Pvt. Ltd. for determination of Multi Year Tariff for fourth Control Period from FY 2022-23 to FY 2024-25, APR of FY 2021-22 and truing-up of FY 2020-21.

**AND**

**In the Matter of:**

Petition filed by M/s Sravanthi Energy Pvt. Ltd. for approval of Business Plan for fourth Control Period from FY 2022-23 to FY 2024-25.

**In the Matter of:**

M/s Sravanthi Energy Pvt. Ltd.  
7<sup>th</sup> Floor, Building No. 9B,  
DLF Cyber City, DLF Phase - III,  
Gurugram, Haryana-122002.

...Petitioner

**AND**

**In the Matter of:**

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

...Respondent

**Coram**

**Shri D.P. Gairola**

**Member (Law)/Chairman (I/C)**

**Shri M.K.Jain**

**Member (Technical)**

**Date of Order: March 31, 2022**

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, 2018 (hereinafter referred to as “UERC Tariff Regulations, 2018”) for the third Control Period from FY 2019-20 to FY 2021-22 and Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2021 (hereinafter referred to as “UERC Tariff Regulations, 2021”) for the fourth Control Period from FY 2022-23 to FY 2024-25, specifying therein terms, conditions and norms of operation for licensees, generating companies and SLDC. The Commission vide its Order dated 27.02.2019 approved the Business Plan and Multi Year Tariff for the third Control Period from FY 2019-20 to FY 2021-22. Further, the Commission vide its Order dated 26.04.2021 approved the ARR for FY 2021-22 alongwith truing of FY 2019-20. In compliance with the provisions of the Act and Regulations 8(1) and Regulation 10(1) of UERC Tariff Regulations, 2021, M/s Sravanthi Energy Pvt. Ltd. (hereinafter referred to as “M/s SEPL” or “the Petitioner” or “the Generator”) filed separate Petitions for approval of its Business Plan (Petition No. 45 of 2021 hereinafter referred to as the “Business Plan Petition”) and Multi Year Tariff Petition (Petition No. 46 of 2021 hereinafter referred to as the “MYT Petition”) for the fourth Control Period from FY 2022-23 to FY 2024-25 on 30.11.2021. The Petitioner, in its Business Plan Petition, has submitted the Capital Investment Plan, Financing Plan and trajectory of performance parameters for the fourth Control Period. Further, through the MYT Petition, the Petitioner has submitted the detailed calculations of its projected Aggregate Revenue Requirement for the fourth Control Period from FY 2022-23 to FY 2024-25 as per the UERC Tariff Regulations, 2021. Through the MYT Petition, the Petitioner has also requested for true up of FY 2020-21 based on the audited accounts in accordance with UERC Tariff Regulations, 2018.

The MYT Petition filed by the Petitioner had certain infirmities/deficiencies. The Commission, accordingly, vide its letter no. UERC/6/TF-627/2021-22/2021/897 dated 07.12.2021 directed the Petitioner to rectify the said infirmities in the Petition and submit certain additional information necessary for admission of the Petition. M/s SEPL vide its submission dated 14.12.2021 removed the critical deficiencies. Based on the submission dated 14.12.2021 made by M/s SEPL, the Commission provisionally admitted the Petition for further processing subject to the condition that



M/s SEPL shall furnish any further information/clarifications as deemed necessary by the Commission during the analysis of the Petition, 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 SEPL for approval of Business Plan, determination of Aggregate Revenue Requirement (ARR) and MYT for the fourth Control Period from FY 2022-23 to FY 2024-25 and Annual Performance Review for FY 2021-22, alongwith Truing up for FY 2020-21, and is based on the original as well as the subsequent submissions made by M/s SEPL during the course of the proceedings and the relevant findings contained in the Tariff Order dated 24.10.2017 and subsequent orders of 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 the 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 SEPL is recoverable from the beneficiary, i.e. UPCL. It is the endeavour of the Commission, to issue Tariff Orders for M/s SEPL 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 SEPL. 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 fourth Control Period from FY 2022-23 to FY 2024-25.

Chapter 3 - Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Truing up for FY 2020-21.

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

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

## **1 Background and Procedural History**

M/s SEPL is a company incorporated under the Companies Act, 1956. M/s SEPL is a generating company falling within the definition under sub-section 28 of Section 2 of the Electricity Act, 2003 (hereinafter referred to as the “Act”) and has implemented a 428 MW gas based CCPP on build, own and operate basis in two phases of 214 MW (225 MW ISO) each, comprising of two gas turbine generator (GTG), each having a gross output of about 71.5 MW at site conditions, two heat recovery steam generators (HRSG) and one common steam turbine generator (STG) of about 71 MW capacity in both phases.

The name plate capacity of the gas based Power Station is 450 MW (ISO condition) of two phases of 225 MW (ISO) each, 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 in both phases. However, at site conditions the power plant will have a gross capacity of 428 MW in two phases of 214 MW each. 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 30.04.2016 was signed between Government of India and the Petitioner and other agreements were executed pursuant to the requirements under the scheme.

The Petitioner had executed a PPA on long term basis for sale of 214 MW on gross capacity basis with the State licensee, i.e. UPCL and had achieved commercial operation of CCPP of Phase 1 comprising of two gas turbine and one steam turbine on 20.11.2016.

The Commission vide its Tariff Order dated 24.10.2017 approved the Business Plan and Multi Year Tariff of M/s SEPL for the contracted capacity from 20.11.2016 to 31.03.2017 and for the remaining two years of the second Control Period from FY 2017-18 to FY 2018-19. Further, the Commission vide its Tariff Order dated 27.02.2019 approved the Business Plan and Multi

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Year Tariff of M/s SEPL for contracted capacity for the third Control Period from FY 2019-20 to FY 2021-22. The Commission, in the approval of Business Plan for the third Control Period, approved the Capital Expenditure Plan, Capitalisation 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 2019-20 to 2021-22, and also carried out the Truing up of FY 2017-18. Further, the Commission vide its Order dated 18.04.2020 and 26.04.2021 approved the AFC for the Petitioner's plant for FY 2020-21 (alongwith truing up for FY 2018-19) and FY 2021-22 (along with Truing up of FY 2019-20) respectively.

In accordance with the provisions of the Act and Regulations 8(1) and Regulation 10(1) of UERC Tariff Regulations, 2021, the Generating Companies are required to submit the Petition for approval of Business Plan and MYT Petition for determination of Aggregate Revenue Requirement for fourth control period, latest by November 30, 2021. M/s SEPL in compliance to the Regulations submitted the Petition for approval of Business Plan and MYT Petition for determination of ARR for the fourth Control Period from FY 2022-23 to FY 2024-25 alongwith the true up of expenses for FY 2020-21 based on the audited books of accounts, on November 30, 2021.

The Commission vide its letter no. UERC/6/TF-627/2021-22/2021/897 dated 07.12.2021 asked the Petitioner to submit certain relevant information in accordance with the Tariff Regulations, 2018 for the true-up of FY 2020-21. M/s SEPL was directed to rectify the said infirmities alongwith certain other deficiencies in the Petition and was also required to submit additional information necessary for admission of the Petition. M/s SEPL vide its submission dated 14.12.2021 removed the critical deficiencies. Based on the submission dated 14.12.2021 made by M/s SEPL, the Commission provisionally admitted the Petition on 21.12.2021.

Meanwhile, based on the scrutiny of the Petition submitted by M/s SEPL and replies submitted by the Petitioner, the Commission sought certain additional information/clarifications from the Petitioner from time to time which were necessary for the purpose of finalizing this Tariff Order.

In order to provide transparency in the process of tariff determination and give UPCL an opportunity to submit their objections/suggestions/comments on the proposals of M/s Sravanthi

Energy Pvt. Ltd., the Commission sent a copy of the tariff proposals to UPCL vide letter no. UERC/6/TF-627/2021-22/2021/953 dated 21.12.2021.

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

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

## 2 Petitioner's Submissions, Commission's Analysis, Scrutiny and Conclusion on Business Plan for fourth Control Period from FY 2022-23 to FY 2024-25

### 2.1 Statutory Requirement

The Commission had notified UERC Tariff Regulations, 2018 on 14.09.2018 in accordance with the provisions of the Act. The above Regulations are applicable for determination of Tariff for the third Control Period from FY 2019-20 to FY 2021-22. Subsequently, the Commission notified the UERC Tariff Regulations, 2021 on 14.09.2021 applicable for the fourth Control Period from FY 2022-23 to FY 2024-25.

### 2.2 Multi-year Framework

As regards the Multi Year Tariff Framework, Regulation 4 of UERC Tariff Regulations, 2021 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 31.03.2022 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 fourth Control Period

With respect to Business Plan, Regulation 8 of UERC Tariff Regulations, 2021 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, 2021, for the Control Period of three (3) financial years from April 1, 2022 to March 31, 2025;*
  - 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, 2021, M/s SEPL submitted the Business Plan for the fourth Control Period from FY 2022-23 to FY 2024-25. M/s SEPL in its Business Plan Petition and subsequent submissions has submitted the trajectory of Performance parameters, Capitalization Plan and Financing Plan for the fourth Control Period from FY 2022-23 to FY 2024-25. The Petitioner's submissions and the Commission's analysis on approval of Business Plan submitted by M/s SEPL for the fourth Control Period from FY 2022-23 to FY 2024-25 are detailed below:

### 2.3.1 Proposed Additional Capitalisation

With regard to additional capitalisation, the Petitioner has proposed the following additional capitalisation for the fourth Control Period from FY 2022-23 to FY 2024-25:

**Table 2.1: Additional Capitalisation proposed for the fourth Control Period (Rs. Crore)**

Particulars	FY 2022-23	FY 2023-24	FY 2024-25	Claimed under head
Land	-	-	-	-
Civil Works	-	-	-	-
Plant & Machinery (Transmission Line)	-	-	-	-
Plant & Machinery (Spares)	20.00	-	-	Regulation 22(1)(c)
Furniture and Fixtures	-	-	-	-
Office Equipment & Others	-	-	-	-
Computers	-	-	-	-
Vehicles	-	-	-	-
<b>Total</b>	<b>20.00</b>	<b>-</b>	<b>-</b>	<b>-</b>

With regard to Additional capitalisation, Regulation 22 of UERC Tariff Regulations, 2021 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;*

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

- g) 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:*



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

- (i) In case of non-performance/failure of assets/equipment, it shall be sent to Store for assessment to check whether it is repairable or not at zero cost;*
- (ii) In case the asset is repairable, then such asset/equipment shall not be retired from Books of Assets.*

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

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

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

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

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

*(3) In case of de-capitalisation of assets of a generating company or the distribution licensee or the transmission licensee or SLDC, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place, duly taking into consideration the year in which it was capitalised.*

*(4) Any addition/modification to the existing assets exceeding Rs. 2.50 Crore in case of distribution licensees and Rs. 5 Crore in case of generating companies/transmission licensees shall be taken up only after prior approval of the Commission. The investment approval applications covered under this sub-regulation are excluded from the application of proviso to Sub-regulation (2) of Regulation 10 of UERC (Conduct of Business) Regulations, 2014 in so far as the requirement of submission of documentary evidence with respect to the approval of BoD is concerned"*

Further, cut-off date has been defined under Regulation (3)(19) of UERC Tariff Regulations, 2021 as follows:

*“Cut-off Date’ means 31<sup>st</sup> March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31<sup>st</sup> March of the year closing after three years of the year of commercial operation;*

*Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalization could not be done within the cut-off date for reasons beyond the control of the project developer;”*

In the present Petition, the plant of the Petitioner was put under commercial operation w.e.f. 20.11.2016. Accordingly, as per aforesaid definition, the cut-off date of the plant works out to 31.03.2019 and proposed expenditure claimed for the fourth Control Period is beyond the cut-off date and, accordingly, cannot be governed under Regulation 22(1) of the UERC Tariff Regulations, 2021.

The Petitioner submitted that it plans to procure the balance Initial Spares in FY 2022-23, which have been deferred for optimization of cash flows. The Petitioner also submitted that actual expenditure incurred under this head may be allowed during true-up in the ensuing/ relevant Financial Year subject to prudence check by the Commission.

With regard to additional capitalisation on account of initial spares, the Commission vide its Tariff Order dated 24.10.2017 on approval of the Business Plan and Tariff Petition of the Petitioner for the Control Period from FY 2016-17 to FY 2018-19, and subsequent orders of the Commission 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 ceiling limit specified under the Regulations. Further, as mentioned earlier, the proposed additional capitalisation falls after the 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, 2021 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 doesn't find any reason to approve any additional capitalisation for the fourth 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, 2021 after prudence check.

Further, Sub-clause (4) of Regulation 22 of MYT Regulations, 2021 reads as under:

*"Any addition/modification to the existing assets exceeding Rs. 2.50 Crore in case of distribution licensees and Rs. 5 Crore in case of generating companies/transmission licensees shall be taken up only after prior approval of the Commission. The investment approval applications covered under this sub-regulation are excluded from the application of proviso to Sub-regulation (2) of Regulation 10 of UERC (Conduct of Business) Regulations, 2014 in so far as the requirement of submission of documentary evidence with respect to the approval of BoD is concerned."*

In view of the above Regulation, the Petitioner is required to seek prior approval of the Commission in case addition/modification to the existing assets exceeds Rs. 5 Crore in case of generating companies. The Petitioner is directed to ensure the compliance of the same with respect to the proposed additional capitalization for fourth Control Period.

### **2.3.2 Financing Plan**

The Petitioner submitted that the capital expenditure to be incurred in FY 2022-23 is to be financed entirely through debt. As mentioned above, the Commission has not considered any additional capitalisation for the fourth 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 as per OEM's recommendation.
- Audit history & diagnostic based maintenance.

- Overall operational constraints.
- Technological up-gradation.
- Performance improvement measures.
- Statutory compliances.
- Life sustenance, extension, enhancement actions.

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

**Table 2.2: Maintenance schedule for FY 2022-23**

Months	Gas Turbine-1/HRSG -1		Steam Turbine -1		Gas Turbine-2/HRSG -2	
	Details	Outage Hours	Details	Outage Hours	Details	Outage Hours
Apr-22	-	0	-	0	-	0
May-22	-	0	-	0	-	36
Jun-22	Offline water wash	36	-	0	-	0
Jul-22	-	0	-	0	-	0
Aug-22	-	0	-	0	-	0
Sep-22	-	0	-	0	-	0
Oct-22	-	0	-	0	1. Offline water wash. 2. Intake air filters replacement.	48
Nov-22	-	48	-	0	-	0
Dec-22	-	0	-	0	-	0
Jan-23	-	0	-	0	-	0
Feb-23	-	0	-	0	BI Inspection, Offline water wash and DLN Tuning	96
Mar-23	BI Inspection, Offline water wash and DLN Tuning	96	-	0	-	0
Yearly		180		0	-	180

**Table 2.3: Maintenance schedule for FY 2023-24**

Months	Gas Turbine-1/HRSG -1		Steam Turbine -1		Gas Turbine-2/HRSG -2	
	Details	Outage Hours	Details	Outage Hours	Details	Outage Hours
Apr-23	-	0	-	0	-	0
May-23	-	0	-	0	-	36
Jun-23	Offline water wash	36	-	0	-	0
Jul-23	-	0	-	0	-	0
Aug-23	-	0	-	0	-	0
Sep-23	-	0	-	0	-	0
Oct-23	-	0	-	0	1. Offline water wash. 2. Intake air filters replacement.	48
Nov-23	1. Offline water wash. 2. Intake air filters replacement.	48	-	0	-	0
Dec-23	-	0	-	0	-	0
Jan-24	-	0	-	0	-	0
Feb-24	BI Inspection, Offline water wash and DLN Tuning HRSG-1Hydrotest & IBR Inspection	144	Control valves inspection	144	BI Inspection, Offline water wash and DLN Tuning, HRSG-2 Hydrotest & IBR inspection	144
Mar-24	-	0	-	0	-	0
Yearly		228		144		228

**Table 2.4: Maintenance schedule for FY 2024-25**

Months	Gas Turbine-1/ HRSG -1		Steam Turbine -1		Gas Turbine-2/ HRSG -2	
	Details	Outage Hours	Details	Outage Hours	Details	Outage Hours
Apr-24	-	0	-	0	---	0
May-24	-	0	-	0	Offline water wash	36
Jun-24	1. GT Major Inspection, Offline water wash and DLN Tuning 2. Generator major Inspection 3. Compressor enhancement package implementation 4. HRSG 1 Performance Improvement	456	-	0	-	0
Jul-24	-	0	-	0	-	0
Aug-24	-	0	-	0	-	0
Sep-24	-	0	-	0	1. Offline water wash. 2. Intake air filters replacement.	48
Oct-24	1. Offline water wash. 2. Intake air filters replacement.	48	-	0	-	0
Nov-24	-	0	-	0	-	0
Dec-24	-	0	-	0	-	0
Jan-25	-	0	-	0	-	0
Feb-25	-	0	-	0	1. GT Major Inspection, Offline water wash and DLN Tuning 2. Generator major Inspection 3. Compressor enhancement package implementation 4. HRSG- 2 Performance Improvement	456
Mar-25	Offline water wash.	36	--	0	---	0
Yearly		540		0		540

### 2.3.3.2 Trajectory of Performance Parameters

The Petitioner submitted that in the light of maintenance schedule planned for Phase 1 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**

Duration Number of days	Unit	FY 2022-23	FY 2023-24	FY 2024-25
		365	366	365
Installed capacity	MW	214	214	214
Aux. (Normative)	%	2.50%	2.50%	2.50%
Availability (Normative)	%	85%	85%	85%
Gross Generation Normative	MU	1593.44	1597.80	1593.44
Auxiliary Consumption	MU	39.84	39.95	39.84
Net Generation Normative	MU	1553.60	1557.86	1553.60

The Commission has noted the submission made by the Petitioner for maintenance schedule and corresponding shutdown hours of its plant and the Commission has accepted the same. However, the Petitioner is directed to have proper communication well in advance with both the

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 the transmission capacity constraint or any other related issues with 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 Order.**

In addition to details pertaining to Phase 1 of the Petitioner's project that got commissioned on 20.11.2016, the Petitioner has also furnished the status of Project Expenditure as on 30.09.2021 as per the audited books of accounts of M/s Sravanthi Energy Private Limited along with the incremental capex required for completion of Phase 2 and requested the Commission to take note of the same.

In this regard, the Commission is of the view that, Phase 2 of the Petitioner's project is altogether separate from Phase 1 of the Petitioner's project and the matters related to Phase 2 are not relevant with respect to the current Business Plan Petition filed by the Petitioner with respect to Phase 1 of its project and, accordingly, the Commission is not delving on the same in the current Order.

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

Regulation 12(3) of the UERC Tariff Regulations, 2018 specifies as under:

*"The scope of the Annual Performance Review shall be a comparison of the actual 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 current and/or 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 that the Annual Fixed Charges have been determined based on the audited accounts considering the relevant provisions of UERC MYT Regulations, 2018 for FY 2020-21 and FY 2021-22, and has, accordingly, requested the Commission to carry out the truing up for FY 2020-21 alongwith the sharing of gains and losses.

#### **3.1.1 Impact of Sharing of Gains & Losses on account of Controllable Factors for FY 2020-21**

Regulation 14 of the UERC Tariff Regulations, 2018 specify 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."*

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

O&M expenses comprises of the major portion of AFC of M/s SEPL and are within the control of the Petitioner and, moreover, in accordance with UERC Tariff Regulations, 2018 these are controllable expenses. Similarly, in accordance with the UERC Tariff Regulations, 2018, the variation in working capital requirements is also a controllable factor. However, as discussed in Tariff Order dated 24.10.2017, 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 as discussed in Tariff Order dated 18.04.2020 and 26.04.2021, interest on working capital was not allowed by the Commission for the purpose of truing up of FY 2018-19 and FY 2019-20 respectively for the same reason. M/s SEPL in the current Petition submitted that the Petitioner does not charge any interest on working capital in accordance with the Commission's Order dated 18.04.2020 subject to receipt of funds within the specified time frame as provided in the said Order and, any delay in receipt of funds is being addressed separately on the quantum of Late Payment Surcharge in accordance with the Commission's order dated 23.03.2021. Further, the performance parameter namely Station Heat Rate and Auxiliary consumption are controllable in nature and, accordingly, the Commission as discussed in subsequent paras of this Order has carried out the truing up of the same and sharing of losses or gains has been done accordingly. Further, the capital related expenses like interest on loans, depreciation etc. has been treated as uncontrollable and, hence, no sharing of losses or gains for the same has been carried out.

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

### **3.1.2 Physical Parameters**

#### **3.1.2.1 NAPAF**

The Commission vide its Order dated 20.07.2016 on approval of the PPA for the Petitioner's plant approved the NAPAF, in accordance with Regulation 54 of the UERC Tariff Regulations, 2015,



as follows:

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

Subsequently, the Commission in the Tariff Order dated 27.02.2019 approved the NAPAF of 85% for third Control Period.

The Petitioner in the current Petition has not sought any deviation from the NAPAF approved by the Commission and, accordingly, the Commission is of the view that the NAPAF of 85% approved in the Tariff Order dated 27.02.2019 for the third Control Period shall continue to be applicable without any change for FY 2020-21.

### **3.1.2.2 Energy Generation and Saleable Primary Energy**

The Commission in its MYT Order dated 27.02.2019 on approval of Business Plan and Multi Year Tariff for the third Control Period from FY 2019-20 to FY 2021-22 had approved the Design Energy based on the contracted capacity of 214 MW. Further, in accordance with Regulation 47(4)(i) of the Tariff Regulations, 2018, auxiliary consumption of 2.5% has been considered. Accordingly, applying the PLF of 85% as discussed hereto above and reducing the auxiliary power, the saleable energy works out as 1553.61 MU for FY 2020-21.

M/s SEPL in its Petition has submitted the actual saleable energy for FY 2020-21 as 481.72 MUs which in turn translates to a Plant Load Factor of 26.36%. 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 2020-21, however, during the year, the actual Gross Generation was 492.06 MUs and the Plant Load Factor which is determined based on the output was 26.92%. The Petitioner submitted that this was primarily due to restrictions imposed by Uttarakhand Power Corporation Ltd (UPCL) on power offtake due to subdued demand in the State owing to the onset of COVID-19 pandemic in Q1-2020. The Petitioner further submitted that, similarly, for Year to Date (April-Sept 2021), the actual Gross Generation of power has been 649.63 MUs and the Plant Load Factor was 35.54%.

The Commission analysed the submissions made by M/s SEPL 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 2020-21. M/s SEPL has also not sought any deviation in

the approved design energy for FY 2020-21. Accordingly, the Commission decides to consider the design energy and saleable primary energy for FY 2020-21 as approved in the Tariff Order dated 27.02.2019 for the Petitioner's plant.

### 3.1.3 Financial Parameters

#### 3.1.3.1 Capital Cost

With regard to the Capital Cost of the 225 MW CCPP of M/s SEPL (Phase I) on the date of its Commercial Operation (COD), the Commission in its Tariff Order dated 24.10.2017 had approved the Capital Cost as on COD as Rs. 1192.41 Crore as follows.

**Table 3.1: Approved Capital Cost for Phase 1 of M/s SEPL as on COD (Rs. Crore)**

Particulars	Approved
Freehold Land	4.08
Civil Works	101.37
Plant & Machinery	1085.07
Other Fixed Assets	
- Vehicle	0.50
- Furniture & Fixture, Office Equipment's etc.	1.14
- Computers	0.26
<b>Total Capital Cost</b>	<b>1192.41</b>

Further, financing of the approved capital cost of Phase 1 of the Power Station as on COD has been considered in line with the Tariff Order dated 24.10.2017 and is shown in the Table below:

**Table 3.2: Financing for Phase 1 as on COD (Rs. Crore)**

Particulars	Approved (Rs. in Crore)	Percentage (%)
Debt	857.31	71.90
Equity	335.10	28.10
<b>Total Loan and Equity</b>	<b>1192.41</b>	<b>100.00</b>

The Commission in the earlier Tariff Orders had approved Nil net additional capitalisation for FY 2016-17, net additional capitalisation of Rs. 0.78 Crore during FY 2017-18, net additional capitalisation of Rs. 0.70 Crore during FY 2018-19 and net additional capitalization of Rs. 0.17 Crore during FY 2019-20 for Phase 1 of the Petitioner's plant. Accordingly, the Commission has considered the approved closing capital cost of FY 2019-20 of Rs. 1194.06 Crore as opening capital cost for the purpose of truing up of FY 2020-21.

#### 3.1.3.2 Additional Capitalisation and De-capitalisation

Regulation 22 of UERC Tariff Regulations, 2018 specifies as under:

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

- a) Undischarged liabilities;*
- b) Works deferred for execution;*
- c) Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 21(11);*
- d) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- e) On account of change in law.*

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

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

- a) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
- b) Change in law;*
- c) Works deferred for execution within the original scope of work;*
- d) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*
- e) Any additional capital expenditure which has become necessary for efficient operation of generating station or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;*
- f) In case of hydro generating stations, any additional expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company), including due to geological surprises, after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;*

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

*g) 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:*

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

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

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

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

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

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

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

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

*(3) In case of de-capitalisation of assets of a generating company or the distribution licensee or the transmission licensee or SLDC, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes*

place, duly taking into consideration the year in which it was capitalised."

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

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

The Petitioner has claimed an additional capitalisation of Rs. 21.98 Crore for FY 2020-21 in accordance with Regulation 22 of UERC Tariff Regulations, 2018 as detailed in the Table below:

**Table 3.3: Additional Capitalisation claimed for FY 2020-21 (Rs. Crore)**

S.No.	Particulars	Amount
1.	Plant & Machinery	
	- Initial Spares	18.18
	- Air Filters	3.18
	- Others	0.23
2.	Vehicle	0.27
3.	Furniture & Fixtures, Office Equipments & Others	0.11
4.	Computers	0.01
	<b>Total</b>	<b>21.98</b>

The Commission analysed the claims of the Petitioner and observed that the same are in accordance with the audited financial statement of FY 2020-21 as submitted by the Petitioner. The Petitioner in FY 2020-21 has done part purchases of Initial Spares for an amount of Rs. 18.18 Crore. As discussed in Chapter 2 of this Order, related to Business Plan for fourth Control Period, the cut-off date for procurement of Initial Spares by the Petitioner was upto 31.03.2019. In this regard, the Commission asked the Petitioner to submit the justification for delay in procurement of Initial Spares citing out the optimisation achieved in economic and technical terms. In response to the same the Petitioner submitted that there are distinctive benefits that arose from the postponement of the procurement of the initial spares. The Petitioner submitted that, from a technical standpoint, initial spares are considered mandatory as these acts as replacement spares in case of breakdown, and precisely for this reason the Regulations provision for this capital expenditure right up-front at the time of tariff determination on the presumption that the generating unit shall always keep the initial spares in stock. The Petitioner submitted that since SEPL also had Phase II (225MW with similar turbines and configuration) in the same premises and which were not commissioned, there were benefits of scale, and all contingencies were catered by the parts already available in Phase II and thus, stock optimisation was achieved to its fullest. The Petitioner submitted that considering that Phase II commissioning began in FY 2020-21, it was prudent for the spares to be procured as

the benefit of extra parts being available extinguished. The Petitioner further submitted that from a commercial/economic perspective, the benefit with respect to savings on depreciation cost for the capex that could have been made in FY 2016-17 (year of commissioning) but postponed to FY 2020-21 has fully accrued to UPCL and in turn to the consumers of electricity in the State. The Petitioner submitted that MYT Regulations provided for a norm of 4% of Plant & Machinery Cost as the Initial Spares which amounts to a threshold of Rs. 43.50 Crore, and had the Company procured the initial spares and utilized the entire limit available as per Regulations, the depreciation cost from FY 2016-17 till FY 2020-21 would have been approximately Rs. 11.0 Crore, besides there are incidental costs in tariff as per the Regulations in relation to the interest on debt (around Rs. 18 Crore) and RoE (around Rs. 10.0 Crore) based on the means of finance for the initial spares, and collectively with the postponement of the initial spares, SEPL could pass on the benefit to UPCL to the extent of Rs. 39.00 Crore. The Petitioner further submitted that as against the budget of Rs 43.50 Crore, they have been very judicious on the cash outflows and procured initial spares worth Rs. 18.18 Crore only, and balance around Rs. 20.00 Crore of initial spares has been postponed to FY 2022-23.

The Commission analysed the submissions made by the Petitioner in this regard and is of the view that the basis for postponing the procurement of Initial Spares by the Petitioner appears to be reasonable in order to strike a balance between the economies and efficacy of operations. The Commission has not gone into the merits of the benefit in rupee terms stated by the Petitioner due to postponement of procurement of Initial Spares, but prima facie there ought to have some saving on account of Depreciation, and related cost viz Interest on Loan & Return on Equity due to deferment of capex related to Initial Spares which were not required on immediate basis and were available from the Phase 2 of the Petitioner's project. Further, the Initial Spares procured by the Petitioner in FY 2020-21 are within the limit of 4% specified in the Regulations, and therefore, the Commission in light of the above by invoking its power under Regulation 103 regarding "Savings" & Regulation 104 regarding "Power to remove difficulties" of MYT Regulations, 2018 allows the Petitioner capitalization of Initial Spares amounting to Rs. 18.18 Crore in FY 2020-21. The Commission also clarifies that the Petitioner should ensure that the procurement of balance amount of Initial Spares proposed to be procured in FY 2022-23 should be completed by that year itself, beyond which the Commission will not consider any expenditure under this head.

Further w.r.t. the additional capitalization on account of Air Filtration System, the Petitioner submitted that the same have been incurred towards GT INLET Filter as per Clause 2.46 of the Order dated 05.04.2019 passed by the Commission. The Commission in its Order dated

05.04.2019, related to finalization of Station Heat Rate of Gas based Combined Cycle Power Plant of Gama Infraprop Pvt. Ltd. and Sravanthi Energy Pvt. Ltd. located at Kashipur, Uttarakhand, suggested certain measures for improvement of Heat Rate for the plants of aforesaid generators. In this regard para 2.37 of Order dated 05.04.2019 reads as under:

*"2.37 Further, with respect to GT Inlet air pressure drop difference, the Consultant submitted that as per GE Performance Guarantee Parameters, pressure drop across air filter considered is only 64 mmWC, whereas it was observed that the pressure drop was always above this value due to site environmental condition. Further, both the Generators were facing difficulties in overcoming this problem more so during summer harvest seasons and winter foggy conditions. The Consultant suggested some measure that the Generators may take to address these issues which are reproduced hereunder:*

*"Issue: Inlet Air Filter - High differential pressure*

*It is noted that the problem of inlet air filter getting clogged and causing a high differential pressure across the filter is a real problem faced by the Generators, which is hampering the performance of the station at certain periods. During our site visit, we observed the environment and atmosphere to be clean and dust free, yet it was reported that O&M staff are regularly covering the suction duct of the filter with an additional filter cloth which also gets clogged within a couple of days .*

*Suggestion:*

*Since the cause of issue or the problem pertains to environmental condition during certain periods, the only remedy available is to see how best we should overcome the effect of it. Regular & Periodic maintenance/replacement & modification of Inlet Air Filtration system with the provision of Pulsation/Static type Inlet air Filter arrangement. This will improve the performance of GT and also will avoid any trip due to high differential pressure.*

*Issue : High ambient Air Temperature during hot weather conditions*

*The performance of the station is dependent upon the Inlet air temperature. When the ambient air temperature increases beyond the design temperature, its density reduces thereby reducing the mass of air flow into the Compressor, which in turn reduces the power output and increases the Station Heat rate.*

*Suggestion: Subject to availability of space and feasibility in layout, it is suggested to implement an Evaporative ambient air cooling system at the suction end and operate the cooling system during hot weather conditions. Evaporative cooling works by employing water's large enthalpy of vaporization. The temperature of dry inlet air can be dropped significantly through the phase transition of liquid water to water vapor evaporation. Quantum of Actual improvement can be computed only after discussions with OEM's/ suppliers and after detailed Techno economic analysis. At this juncture, it can be pointed out that there will be considerable improvement in Station Heat Rate if this system is implemented."*

Further para 2.46 of the Order dated 05.04.2019 reads as under:

*“2.46 The Commission further directs both the Generators i.e., M/s GIPL and M/s SEPL to follow the suggestions given by the Consultant for improvement of Station Heat Rate as discussed at para 2.37 above after carrying out a cost-benefit analysis, based on discussion with OEMs/suppliers and Techno economic analysis etc., and also after getting the same approved by the Commission.”*

The Commission in the Tariff Order dated 18.04.2020 w.r.t. the Petitioner’s plant granted in principle approval for the works related to Gas Turbine Inlet Air-Filtration system & Fogging/Water Spray System amounting to a total of Rs. 3.70 Crore for the two GT's subject to truing up in the respective year in which the said expenditure is capitalized in the books of accounts of the Petitioner. The relevant extract of para 4.3.1 of Order dated 18.04.2020 is reproduced hereunder:

*“In view of the above, the Commission, considering the need and expected benefit arising out of the said installations, grants in-principle approval for the proposed works related to Gas Turbine Inlet Air-Filtration system & Fogging/Water Spray System amounting to a total of Rs. 3.70 Crore for the two GT's, and based on the prudence analysis of the actual cost incurred, the same shall be allowed at the time of truing up of the respective year in which the said expenditure is capitalized in the books of accounts of the Petitioner. Further, the Commission directs the Petitioner to give prior information to UPCL before incurring any major capital expenditure or any major repair & maintenance in its plant and UPCL will be at liberty to physically verify the claims of the Petitioner so as to avoid any dispute in future regarding the claims of the Petitioner. “*

In view of the above the Commission approves the additional capitalization on account of Air filters amounting to Rs. 3.18 Crore in FY 2020-21.

Hence, the Commission, accordingly, approves the net additional capitalisation of Rs. 21.98 Crore as claimed by the Petitioner for FY 2020-21 in accordance with the Regulations.

Moreover, the Commission observed that the Petitioner in its financial statements has decapitalized an amount of Rs. 21.67 Crore and has also made an addition for the same amount in its GFA during FY 2020-21 under the head Plant & Machinery. In this regard, the Petitioner submitted that few components of Gas Turbine Generator were damaged in 2016 and 2019, and for seamless operations, the damaged components were cannibalized from Phase 2 of the project. The Petitioner submitted that in the interest of business, SEPL replaced the damaged parts from Phase 2 of its project and lodged an insurance claim with the insurance company, and on account of the



same it had received Rs. 24.76 Crore during the FY 2020-21, and Rs. 5.96 Crore in FY 2021-22 from the Insurance Company, against damaged Gas Turbine Parts of Phase I of its Kashipur Power Plant, as full & final settlement of its insurance claim. The Petitioner submitted that in totality it received an amount of Rs. 30.73 Crore as insurance claims, and it procured the new parts from market during FY 2020-21 for Rs. 30.94 Crore and have installed the parts that were cannibalized from Phase II. The Petitioner submitted that it had incurred Rs. 0.21 Crore extra in addition to amount received from Insurance Company [Rs. 30.94 Crore – Rs. 30.73 Crore] for procurement of new parts from the market. The Petitioner submitted that, considering that the determination of final value of loss by the Insurance Company and the insurance proceeds thereon for both the events were partially received in FY 2020-21, the accounting was duly concluded in FY 2020-21. The Petitioner submitted that on cannibalization, the Gross Block in Phase 1 increased by the value of the assets added from Phase 2 (Rs 21.67 Crore) and the corresponding accumulated depreciation on the incremental value increased in Phase 1 (Rs 11.77 Crore), and since this inter-Phase transfer was on no profit or loss, the value of Rs 21.67 Crore was also reduced from Phase 1 Gross Block on account of the damaged parts and the corresponding depreciation to the extent of Rs 11.77 Crore was decreased.

The Commission analysed the submissions made by the Petitioner in this regard and sought further explanations/details w.r.t. the basis for arriving at the values claimed by the Petitioner and treatment of the same for the purpose of tariff determination. The Petitioner in response to the same submitted that there was an error in the accounting for damaged GTG parts during FY 2020-21 and the same has been rectified during FY 2021-22. The Petitioner submitted that the GTG were capitalized at the time of commissioning in 2016 for Rs. 594.93 crores (including supply, civil, services and soft cost) but erroneously for the sake of above accounting only supply value of Rs. 260.60 Crore was considered, which has been rectified in FY 2021-22, and auditor certificate in this respect was also furnished by the Petitioner. The Petitioner, accordingly, submitted that value of decapitalised (damaged) assets is Rs. 28.15 Crore and the accumulated depreciation on the same works out to Rs. 5.16 Crore till the end of FY 2019-20. The Petitioner further submitted that, considering there are no specific provisions/ regulations governing the Gas based Stations on the asset damaged and treatment of Insurance proceeds, the following treatment based on the principles of prudence may be accepted:

- a. De-capitalize the original cost [Rs. 28,14,98,673/-] of the Damaged Asset from the Gross Block.

- b. De-recognize the corresponding Debt and Equity on the original cost of the damaged asset. This shall have a negative impact on the tariff.
- c. Allow Additional Capitalization of new/ replacement asset [Rs 30,93,61,872/-] at its full value without any adjustment on account of the Insurance Proceeds.
- d. Considering that the cost of the replacement asset is more than the original cost of the damaged asset, the amount that should be allowed to be considered for debt and equity on the additional capitalization should be limited to the original cost of the damaged asset [Rs 28,14,98,673/-].
- e. Cash loss of Rs 20,98,196/- [difference between Replacement Cost - Insurance Proceeds] should be on account of the Generator.
- f. Interest on Debt, RoE, Depreciation etc shall be allowed only on the original cost of the damaged asset [Rs 28,14,98,673/-] as if there was no damage that took place. This will ensure that there is no incremental burden on UPCL for increased capex.

The Petitioner further submitted that the above treatment shall equate both UPCL and M/s SEPL and as a matter of prudence, it objectively resolves the issue of true and fair representation of the Gross Block of Fixed Assets utilized for generation of power being supplied to the State of Uttarakhand.

On analysing the submissions made by the Petitioner and further discussions, the information w.r.t. the above transaction can be summarized as follows:

**Table 3.4: Summary of information w.r.t. damaged GT Parts in Phase 1 (Rs. Crore)**

S.No	Particulars	Amount
1.	Value of De-capitalised Asset as claimed by the Petitioner in FY 2020-21 (after rectification)	28.15
2.	Value of new asset purchased as replacement of damaged asset	30.94
3.	Insurance proceeds received in FY 2020-21	24.76
4.	Insurance proceeds received in FY 2021-22	5.96
5.	Accumulated depreciation on assets decapitalized as claimed by the Petitioner from CoD till FY 2019-20 (after rectification)	5.16

The Commission worked out the accumulated depreciation w.r.t. the assets decapitalised based on the depreciation approved by the Commission under the head plant and machinery from the date of Commissioning till the end of FY 2019-20 & applicable average depreciation in FY 2020-21 till the date of decapitalization, which works out to Rs. 5.70 Crore against the Petitioner's claim of Rs. 5.16 Crore (till FY 2019-20). The WDV of the decapitalised asset after considering the accumulated depreciation of Rs. 5.70 Crore and considering 90% depreciable value, works out to Rs.

19.64 Crore (Rs. 28.15 Crore x 90% - Rs. 5.70 Crore) as on the date of decapitalization.

Sub-clause (3) of Regulation 22 of MYT Regulations, 2018 reads as under:

*“(3) In case of de-capitalisation of assets of a generating company or the distribution licensee or the transmission licensee or SLDC, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place, duly taking into consideration the year in which it was capitalised.”*

Further, Sub-clause (6) of Regulation 28 of MYT Regulations, 2018 reads as under:

*“(6) In case of de-capitalization of assets in respect of generating station or unit thereof or distribution licensee or SLDC or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.”*

In view of the above quoted Regulations, principles of MYT Regulations, 2018 and past practices of the Commission, the cost of decapitalised asset amounting to Rs. 28.15 Crore has been reduced from the gross fixed assets in FY 2020-21 and the accumulated depreciation thereon of Rs. 5.70 Crore has been reduced from cumulative depreciation for the purposes of computing the remaining depreciable value. Further, the loan and equity corresponding to the decapitalised asset, in the Debt-Equity ratio of 71.90 : 28.10 as on CoD, amounting to Rs. 20.24 Crore Debt and Rs. 7.91 Crore Equity has been deducted from outstanding loan and the equity in FY 2020-21. Further, the debt component of the decapitalised asset amounting to Rs. 20.24 Crore has been reduced by the accumulated depreciation on the decapitalised asset till the date of decapitalisation amounting to Rs. 5.70 Crore for the purposes of deduction from the outstanding loan in FY 2020-21, as the same represents normative repayment of loan related to decapitalised asset till the date of decapitalisation. Therefore, the loan balance has been reduced by Rs. 14.54 Crore (Rs. 20.24 Crore - Rs. 5.70 Crore) in FY 2020-21 on account of decapitalised asset. The impact of the same has been considered at subsequent paras of this Order while dealing with Interest on Loan Capital and Return on Equity.

Further, w.r.t. the loss on account of remaining amount of WDV w.r.t. the decapitalised asset, i.e. Rs. 19.64 Crore, the Commission is of the view that the said loss on account of the decapitalised asset was due to unforeseen circumstances and beyond the control of the Petitioner,

therefore, the same shall be adjusted from the insurance proceeds received against the decapitalised asset. The Petitioner has received insurance proceeds against the damaged assets amounting to Rs. 24.76 Crore and Rs. 5.96 Crore in FY 2020-21 and FY 2021-22 respectively. In this regard, the Commission is of the view that the amount of insurance proceeds received in excess of WDV of the damaged assets shall be added to the NTI of the respective year in which the same has been received, i.e. Rs. 5.12 Crore (Rs. 24.76 Crore - Rs. 19.64 Crore) in FY 2020-21 and Rs. 5.96 Crore in FY 2021-22.

Further, against the damaged components of GT the Petitioner has procured assets amounting to Rs. 30.94 Crore in FY 2020-21, which have been installed by the Petitioner in Phase II of its project, and accordingly, the Petitioner has increased CWIP of Phase II by the cost of newly procured assets, i.e. Rs. 30.94 Crore. The Petitioner also submitted that in FY 2020-21, after passing out the rectification entries in its books of accounts in FY 2021-22, it had reduced the CWIP of Phase II by Rs. 28.15 Crore and increased the gross block of assets in Phase I with the same amount. In this regard, based on the submission made by the Petitioner, the Commission observed that the original value of components transferred by the Petitioner from Phase II to Phase I of its project was Rs. 21.67 Crore. The Petitioner has further increased the said value of components transferred from Phase II to Phase I of its project to include costs towards supply, civil services and soft costs, and has, accordingly, revised the value of the components transferred from Phase II to Phase I of the project from Rs. 21.67 Crore to Rs. 28.15 Crore. In this regard, the Commission is of the view that the increase in value of transferred components cannot be verified as the capital expenditure of Phase II of the Petitioner's project is unapproved as far as regulatory regime is concerned. Moreover, it is also not clear whether or not the expenses related to mantling and dismantling of the GT components transferred from Phase II to Phase I of the Petitioner's project have already been claimed by the Petitioner in the years of actual transfer, i.e. year 2016 and year 2019. In view of the above, for the purposes of current tariff proceedings, the Commission is provisionally allowing Rs. 21.67 Crore as additional capitalisation in FY 2020-21 on account of parts of GT transferred from Phase II to Phase I of the Petitioner's project. The Commission also directs the Petitioner, in case it seeks variation in the value of transferred components provisionally considered by the Commission as discussed above, to submit a detailed justification alongwith the basis for arriving at the value of Rs. 28.15 Crore on account of components transferred from Phase II to Phase I of the Petitioner's project, and also to demonstrate before the Commission based on the documentary evidences that whether or not the cost of mantling and dismantling of these components have already been

claimed in the past by the Petitioner in Phase I of its project, in the next tariff filing, based on which the Commission shall take a final view in the matter.

Here it is pertinent to note that the decapitalization of parts of GT in FY 2020-21, is on account of damages that took place in the year 2016 and year 2019 as submitted by the Petitioner. The Petitioner submitted that the damaged components of Gas Turbine Generator were cannibalized from Phase 2 in the year 2016 and year 2019 for seamless operations, and no accounting entry was passed during those years. The Commission in this regard is of the view that no adjustment w.r.t the past years, i.e. year 2016 & year 2019, is required in this Order as the damage to GT in those years did not affect the operation of the plant since the Petitioner arranged the replacement of damaged parts from Phase 2 of its project to keep the GT running in the respective years. Moreover, the Petitioner has also not passed any accounting entries during the respective years to capture the same.

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

**Table 3.5: Trued up Capital Cost for FY 2020-21 (Rs. Crore)**

Particulars	Opening GFA as on 01.04.2020	Additional Capitalisation approved for FY 2020-21	Decapitalization approved for FY 2020-21	Closing GFA as on 31.03.2020
Freehold Land	4.08	-		4.08
Civil Works	101.37	-		101.37
Plant & Machinery	1085.72	43.27	28.15	1100.84
Vehicles	0.98	0.27		1.25
Furniture & Fixtures, Office equipments etc.	1.46	0.11		1.57
Computers	0.45	0.01		0.45
<b>Total</b>	<b>1194.06</b>	<b>43.65</b>	<b>28.15</b>	<b>1209.56</b>

### 3.1.3.3 Capital Structure

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

“...

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

(6) In case of Generating Company, Transmission Licensee, Distribution Licensee, or SLDC where investments have been made prior to 1.4.2019, Debt: Equity Ratio shall be as approved by the Commission in the previous Orders.”

The Commission has considered the Debt-Equity Ratio of 71.89:28.11 for capital cost as on 01.04.2020 which was approved in the Tariff Order dated 26.04.2021 while approving the truing up for FY 2019-20. Further, with regard to additional capitalisation claimed for FY 2020-21, the Petitioner submitted that the expenses for the procurement of assets were done out of the revenues of the Company. Accordingly, the Commission has considered the financing of additional capitalisation incurred for FY 2020-21 in the Debt-Equity ratio of 70:30, as per UERC Tariff Regulations, 2018. Further, as discussed above, the value of assets decapitalized in FY 2020-21 on account of damaged parts of GT have been reduced from corresponding loan & equity balance.

Accordingly, in view of above, the Capital structure for the capital cost as on 01.04.2020 and additional capitalisation & decapitalisation for FY 2020-21 is as follows:

**Table 3.6: Detail of Financing of Capital Cost Allowed for FY 2020-21**

Particular	Opening as on 01.04.2020		Addition during the year		Decapitalisation during the year		Closing as on 31.03.2020	
	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%	(Rs. Crore)	%
Debt	858.46	71.89%	30.56	70.00%	20.24*	71.90%	868.77	71.83%
Equity	335.60	28.11%	13.10	30.00%	7.91	28.10%	340.78	28.17%
<b>Total</b>	<b>1194.06</b>	<b>100.00</b>	<b>43.65</b>	<b>100.00</b>	<b>28.15</b>	<b>100.00</b>	<b>1209.56</b>	<b>100.00</b>

\* For the purpose of considering outstanding loan for calculating Interest on Loan Capital, this value has been reduced to the extent of accumulated depreciation on decapitalised asset as discussed in preceding paras of this Order.

### 3.1.3.4 Depreciation

Regulation 28 of UERC Tariff Regulations 2018 specifies as follows:

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

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

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

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

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

*Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.*

*Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable.*

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

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

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

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

*(6) In case of de-capitalization of assets in respect of generating station or unit thereof or distribution licensee or SLDC or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services"*

The Petitioner has claimed depreciation of Rs. 67.87 Crore for FY 2020-21 based on the actual expenditure capitalised in its books of account, and also on additional capitalisation from COD till FY 2020-21.

The Commission has calculated the weighted average rate of depreciation of 5.11% by applying the depreciation rates as specified in Appendix-II of UERC Tariff Regulations, 2018 on the GFA base of the Petitioner. Accordingly, the Commission has worked out the depreciation of Rs. 61.38 Crore against the admissible average GFA of Rs. 1201.81 Crore during FY 2020-21 by applying the weighted average rate of depreciation of 5.11%.

Based on the above discussed approach, the summary of depreciation as approved in Tariff Order dated 18.04.2020, claimed by the Petitioner and as approved now by the Commission for FY 2020-21 after truing up is shown in the Table given below:

**Table 3.7: Depreciation for FY 2020-21 (Rs. Crore)**

Particulars	Approved in Tariff Order dated 18.04.2020 for FY 2020-21	Claimed	Approved after truing up
Depreciation	60.95	67.87	61.38

### 3.1.3.5 Return on Equity (RoE)

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

*“26. Return on Equity*

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

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

*(2) Return on equity shall be computed on at the rate of 15.5% for 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. 56.63 Crore for FY 2020-21. 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 2020-21 is given in the Table below:

**Table 3.8: Return on Equity for FY 2020-21 (Rs. Crore)**

Particular	Approved in Tariff Order dated 18.04.2020	Claimed by Petitioner	Approved after truing-up
Return on Equity	52.02	56.63	52.02

### 3.1.3.6 Interest and Finance charges

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

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

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

*(2) The normative loan outstanding as on 01.04.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.03.2019 from the approved 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. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalization of such asset.*



...

(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.*

(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 results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings on interest shall be shared between the beneficiaries and the Generating Company or the Transmission Licensee or the Distribution Licensee or the SLDC, as the case may be, in the ratio of 1:2.*

(8) *The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.*

...“

The Petitioner has claimed interest on normative loan of Rs. 204.91 Crore for FY 2020-21 for the purpose of truing up based on the weighted average rate of interest of 13.50% p.a. The Petitioner submitted that Capital expenditure approved by the Commission has been lower than the actual capital expenditure, hence, interest cost being incurred would always be higher than the approved cost as the financing structure applied by the Commission is on the approved capex. The Petitioner submitted that for the computation of the AFC, they have provided the actual interest cost in accordance with the books of accounts and the same shall form the basis for projections for the future years.

The Commission has considered the normative loan worked out as on 31.03.2020 as opening normative loan for FY 2020-21 and repayment has been considered equal to the admissible depreciation, i.e. Rs. 61.38 Crore. Also, as discussed hereto above, the Commission has provisionally

approved additional capitalisation of Rs. 43.65 Crore, and decapitalisation of Rs. 28.15 Crore for FY 2020-21. Further, as discussed in preceding paras of this Order, the additional capitalization of Rs. 43.65 Crore in FY 2020-21 has been funded through the debt-equity ratio of 70:30, i.e. debt of Rs. 30.56 Crore and equity of Rs. 13.10 Crore. Further, the decapitalisation of Rs. 28.15 Crore has been considered in the debt-equity ratio as on CoD. Further, as discussed in preceding paras of this Order, the proportionate loan pertaining to decapitalised asset has been further adjusted by the amount of accumulated depreciation on the decapitalised assets. Accordingly, net addition to normative loan has been considered as Rs. 16.01 Crore as per UERC Tariff Regulations, 2018.

The Commission sought information w.r.t. the term loan accounted for by the Petitioner in its books of accounts and observed that for the loans related to Phase I of the project the weighted average rate of interest on the basis of interest accounted by the Petitioner in its books works out to 13.68% for FY 2020-21 after excluding the reversal on account of liquidated damages and penal interest levied in previous years.

The Commission, in line with the approach taken in the tariff Order dated 26.04.2021, observed that a similarly placed gas-based generator, namely M/s Gama Infraprop Pvt. Ltd. has incurred interest for FY 2020-21 at the rate of 12.36%. Accordingly, the Commission finds no reason to allow higher interest rate to the Petitioner company than that incurred by M/s Gama Infraprop Pvt. Ltd, and hence, the interest expenses for FY 2020-21 has been trued up at the rate of 12.36%.

The Commission, accordingly, approves the interest on loan capital as Rs. 78.21 Crore for FY 2020-21.

Furthermore, the Petitioner has claimed Bank Charges and BG/LC Commission charges amounting to Rs. 0.05 Crore for FY 2020-21 under Operation & Maintenance expenses under the sub-head Administrative and General expenses. The expenses are of the nature of financing charges and hence, have not been considered as a part of Operation & Maintenance expenses, rather the same is allowable separately under the head Interest on Loan Capital as finance charges, under UERC Tariff Regulations. Accordingly, the Commission, approves Rs. 0.05 crore as finance charges for FY 2020-21.

Based on the above considerations and UERC Tariff Regulations, 2018, the Commission has approved the interest expenses for FY 2020-21 for Phase 1 of the Petitioner's project as shown in the Table below:

**Table 3.9 Interest on Loan as approved for FY 2020-21 (Rs. Crore)**

Particulars	Approved in Tariff Order dated 18.04.2020 for FY 2020-21	Claimed by Petitioner	Approved after truing up for FY 2020-21
FY 2020-21	76.23	204.91	78.21
Add: Financing Charges for FY 2020-21	-	-	0.05
<b>Total Interest &amp; Finance Charges</b>	<b>76.23</b>	<b>204.91</b>	<b>78.25</b>

### 3.1.3.7 Operation & Maintenance (O&M) Expenses

#### 3.1.3.7.1 Truing up of O&M Expenses for FY 2020-21

Regarding the Operation and Maintenance 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

...”

Based on the applicable norms of O&M expenses for combined cycle generating station, the Commission had approved normative O&M expenses of Rs. 84.40 Crore for FY 2020-21 for 214 MW capacity of the Petitioner's plant.

The Petitioner submitted that it had spent an amount of Rs. 85.45 Crore towards O&M expenses in FY 2020-21 as per the audited accounts, and, accordingly, claimed an amount of Rs. 84.75 Crore (after sharing of gain/loss) for the purpose of true up of O&M expenses in FY 2020-21. Further, the Petitioner submitted the separate details of employee, R&M and A&G expenses.

The Commission analysed the submission made by the Petitioner and sought information/justification for major increase in O&M expenses under repair & maintenance (plant & machinery), consumption of stores & spares, electricity charges, professional expenses, and salaries vis-à-vis FY 2019-20.

In response to the same the Petitioner submitted that increase in expenditure under the

head repair & maintenance (plant & machinery) and consumption of stores & spares is on account of HGPI works executed during the FY 2020-21. Further, the electricity charges have increased as the plant was under back down condition during the period from April 2020 to November 2020 and there was only import of power from UPCL. The Commission analysed the submissions made by the Petitioner in this regard and is of the view that the reason submitted for increase in O&M expenses under these heads appears to be justified.

Further, w.r.t. to increase in O&M expenses under the head professional expenses, the Petitioner submitted that the same is on account of legal fees paid to consultant for restructuring of debt & equity. The Commission analysed the submissions made by the Petitioner and observed that the Petitioner under the head professional expenses has claimed an amount of Rs. 2.84 Crore on account of professional charges incurred towards debt and equity restructuring of SEPL. The Commission is of the view that since this expense pertain to company as whole, therefore, the same cannot be apportioned entirely on Phase 1 of the Petitioner's plant, and, accordingly, the Commission has allowed the said expense only to the extent of 50% in Phase 1 of the project.

Further, w.r.t. to increase in salary expenses, the Petitioner submitted that the same is on account of addition of new staff. The Petitioner further submitted that part of salary expenses for the financial year 2020-21 pertains to Phase 2, and accordingly a sum of Rs. 1.95 Crore has now been allocated to Phase 2. The Petitioner further submitted that the salary allocation to Phase 2 has been considered from FY 2020-21 only as the works for Phase 2 has been restarted in FY 2020-21, prior to which the works of Phase 2 were stalled since long. The Commission accepts the Petitioner's submission in this regard and, accordingly, reduces Rs. 1.95 Crore from salary expenses claimed for Phase 1 by the Petitioner for truing up of FY 2020-21.

**Table 3.10: Expenses disallowed in FY 2020-21 (Rs. Crore)**

Particulars	Amount	Reasons for disallowance
Legal & Professional Charges	1.42	Total expense of 2.84 Crore apportioned equally between Phase 1 & Phase 2 of the project.
Salary Expenses	1.95	The same pertains to Phase 2 of the project
<b>Total</b>	<b>3.37</b>	

Further, as discussed above, bank charges & BG/LC commission charges of Rs. 0.05 Crore included in the Operation & Maintenance Expenses claimed by the Petitioner, has been allowed separately by the Commission as finance charges under Interest on Loan Capital.

As per MYT Regulations, 2018, the variation in normative and actual O&M expenses shall be considered as part of gain/loss on account of controllable factors.

Regulation 14 of MYT Regulations, 2018 specifies as follows:

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

- (1) *The approved aggregate gain and loss to the Applicant on account of controllable factors shall be dealt with in the following manner:*
- a) *1/3<sup>rd</sup> 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, O&M expenses have been considered as controllable factor, and, accordingly, the Commission has approved the total O&M expenses for FY 2020-21 after sharing of gain/loss in accordance with the Regulations as shown in the Table below:

**Table 3.11: O&M Expenses Approved After Sharing of Gains and Losses for FY 2020-21 (Rs. Crore)**

Particulars	Actual Claimed in the Petition	Adjusted claim considered for sharing	Normative approved now	Efficiency gain/(loss)	Generator Share	Net Entitlement
O&M Expenses		A	B	C=B-A	D=2/3xC	E=A+D
FY 2020-21	85.45	82.04	84.40	2.36	1.58	83.61

**3.1.3.8 Interest on Working Capital**

Regulation 33 (1) of UERC Tariff Regulations, 2018 specifies as follows:

"...

- a) *In case of open cycle Gas Turbine/Combined Cycle thermal generating stations, working capital shall cover:*
- (i) *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;*
- (ii) *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;*
- (iii) *Operation and maintenance expenses for one month;*
- (iv) *Maintenance spares @ 30% of operation and maintenance expenses; and*
- (v) *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.*

...

As discussed in the Tariff Order dated 24.10.2017, the Commission vide its Order dated 17.04.2017 allowed the Petitioner to forego interest on working capital in lieu of non-chargeability of rebate by UPCL while making payment of generation bills raised by the Petitioner. The relevant extract of the Tariff Order dated 24.10.2017 is reproduced hereunder:

*“However, the Petitioner vide its letter dated 07.04.2017 submitted that it intends to forego interest on working capital in case UPCL does not charge rebate on their energy bills. The Commission evaluated the submissions made by the Petitioner and observed that it would be in the interest of consumer of the State if Petitioner’s proposal is accepted in this regard since with the implementation of this arrangement there will be net reduction in generation tariff of the Petitioner and consequent reduction in power purchase cost of UPCL resulting in the decrease of retail/consumer tariffs. In this regard, the Commission vide its Order dated 17.04.2017 had allowed the Petitioner (M/s SEPL) to forego interest on working capital in lieu of non-chargeability of rebate by UPCL while making payment of generation bills raised by M/s SEPL. Relevant extract of the above mentioned Order is as follows:*

*“From the above illustration, it is clear that there will be net saving in cost of power purchase to the tune of about Rs. 13 Crore per year or Rs. 1 Crore p.m. under the arrangement that UPCL does not charge rebate to M/s SEPL and in turn M/s SEPL foregoes interest on working capital. However, this arrangement will only be applicable to M/s SEPL as other Gas based generators in the State have not given their option to this effect. Keeping in view, the overall benefit to UPCL and consumers of the State, the Commission allows implementation of the above arrangement between UPCL and M/s SEPL. The Commission also advises other Gas based generators to explore the option forwarded by M/s SEPL in the interest of UPCL and consumers of the State.*

*Accordingly, the direction issued by the Commission vide its Order dated 25.01.2017 regarding non-applicability of provision of rebate till 31.03.2017 and deduction of rebate by UPCL thereafter, shall be limited to only two Gas based generators namely M/s GIPL and M/s Beta Infratech for whom the provision relating to deduction of rebate by UPCL on the energy bills shall be governed in accordance with the original PPA approved by the Commission. However, the Respondents will be at liberty to raise the fortnightly bills to UPCL corresponding to fuel bills raised by M/s GAIL in accordance with the principles laid down in the Commission’s Order dated 25.01.2017.”*

The Petitioner has also filed a separate Petition dated 04.03.2021 before the Commission seeking necessary directions to UPCL for releasing interest on delay in payments of its energy invoices for FY 2018-19 & FY 2019-20. The Commission on the said Petition had vide its Order dated 23.03.2021 directed both the Petitioner and UPCL to amicably settle the issue between themselves as

per the provisions of the PPA by 31.05.2021, and bring up the dispute, if any remaining unresolved, before the Commission after exhausting the remedies available under the provisions of the PPA under Section 86(1)(f) of the Act. The relevant portion of the Order dated 23.03.2021 is reproduced hereunder:

“... ”

*The Commission directs the Petitioner and the Respondent to amicably settle the issue between themselves as per the provisions of the PPA by 31.05.2021. The parties may bring up the dispute, if any remaining unresolved, before the Commission after exhausting the remedies available under the provisions of the PPA under Section 86(1)(f) of the Act.*

...”

The Petitioner has also not claimed any Interest on Working Capital in its current Petition and submitted that any delay in receipt of funds is being addressed separately on the quantum of Late Payment Surcharge in accordance with the Order dated 23.03.2021 of the Commission.

Accordingly, in line with the decision taken in the Tariff Order dated 24.10.2017 and aforesaid discussions, interest on working capital is not being allowed for the purpose of truing up of FY 2020-21.

### **3.1.3.9 Non Tariff Income**

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

*“46. Non Tariff Income*

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

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

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

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) Interest on delayed or deferred payment on bills;*

- e) Interest on advances to suppliers/contractors;
- f) Rental from staff quarters;
- g) Rental from contractors;
- h) Income from hire charges from contractors 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 an amount of Rs. 0.01 Crore as NTI for FY 2020-21. The Petitioner submitted that interest earned on FDs have been kept outside the purview of NTI in accordance with the MYT Regulations as the same is earned from monies accumulated over the years on account of RoE. The Petitioner further submitted that Trust and Retention Account (TRA) ("Escrow Account") in SEPL was established to deposit all the receipts of any nature whatsoever thereby facilitating full control on the monies available in the bank by the lenders, and all sums were expended from various sub-accounts in the TRA to maintain transparency and provide ease of reconciliations for the purpose of utilization. Further, the Company has not declared any dividend in any of the previous FYs, and considering that there were accruals, it was only on account of RoE that the surplus could have generated as other heads of expenditure were based on actual obligations. The Petitioner further submitted that there is a specified waterfall mechanism provided in the schedule of the Master Restructuring Agreement (MRA) for cash distribution from the Escrow, and it is safe to assume that the monies received as part of tariff would be utilized for the same purpose in the aforesaid waterfall. Further, there is an obligation to maintain Debt Service Reserve Amount equivalent to 4 months of the debt obligations as provided in the (MRA). Further, SEPL is obligated to make the payments to the Lenders as per the instructions/ directions as prescribed under the MRA. The Petitioner submitted that the methodology to co-relate the actual payments vs normative interest would not be a reasonable approach in context of the commercial arrangement wherein SEPL continues to remain obligated to the lenders towards the interest that may accrue. The Petitioner further submitted that in the true up order for FY 2019-20 the Commission considered that the available funds are due to non-payment of debt obligations, whereas the Petitioner was obliged to make payments as per MRA and as per water fall mechanism provided in MRA. The Petitioner also reiterated that SEPL does not have any working capital limits.



In case the fund-based limits were available, the amount spent towards operational expenditure would have been made out of the said limits and the interest would have been duly included as part of the tariff in accordance with the MYT regulations, which would have resulted in the increase in tariff which was prejudicial to the interest of the State and its consumers. The Petitioner submitted that payments from UPCL were received with a lag and financial obligations towards gas supply and operational expenses were met out of the accrued funds. The Petitioner accordingly submitted that, in view of the above discussion, it is safe to conclude that the monies accrued in the bank relates to RoE and does not pertain to funds received on account of operational expenditure or debt servicing as part of tariff.

The Commission analysed the Petitioner's submission in this regard and is of the view that the methodology adopted by it for working out the investment out of RoE in FY 2018-19 & FY 2019-20 is not giving the correct position of investments made by the Petitioner out of its RoE. However, the situation, after scrutinizing the accounts, has been found to be different for FY 2020-21. The Commission, accordingly, compared the average investment made by the Petitioner against the average RoE allowed till date, after deducting the additional capitalization in the respective years as the Petitioner had been claiming that post CoD, the capitalizations have been funded entirely out of its internal resources. Further, the Commission also reduced the O&M expenses disallowed to the Petitioner in respective years, which the Petitioner is expected to meet out of its own equity. The Commission observed that the average investment made by the Petitioner in FY 2020-21 is lower than the average RoE available with it till the end of FY 2020-21, and, therefore, the interest on average investment as discussed below has been reduced from the NTI for the purposes of truing up of FY 2020-21.

The Commission analysed the investment details submitted by the Petitioner and observed that it is investing its funds on rolling basis based on surplus funds available with it. Accordingly, the Commission worked out the Average Investment made by the Petitioner in FY 2020-21 and the weighted average rate of interest in the respective year as shown in the table below:

**Table 3.12 Summary of Investment made by the Petitioner (Rs. Crore)**

Particulars	FY 2020-21
Average Investment as per FD details submitted by the Petitioner	131.89
Corresponding interest on above FDs as per audited accounts	3.60
Average Rate of Interest	2.73%

Further, as discussed in preceding paras of this Order, the excess amount of insurance proceeds received against the decapitalised assets has been considered to be part of NTI for the

purpose of reduction of AFC in the respective year of receipt of the same. Accordingly, the excess amount of insurance proceeds received in FY 2020-21 amounting to Rs. 5.12 Crore, as discussed in previous paras of this order, has been added in the NTI of FY 2020-21 for the purposes of calculating AFC of the same year.

Accordingly, in view of the above discussions, the NTI for FY 2020-21 as approved by the Commission is as follows:

**Table 3.13 Non-Tariff Income for FY 2020-21**

Particulars	Amount (Rs. Crore)
Interest Income Bank Deposit	3.65
Interest Income Security Deposit	0.03
Interest income from ICD's & Income tax refund	0.70
Scrap Sale & others miscellaneous income	0.09
Excess amount of insurance proceeds received	5.12
Less: Interest on funds invested out of RoE	(3.60)
<b>Net Non-Tariff Income for FY 2020-21</b>	<b>6.00</b>

In view of above, the Commission approves Rs. 6.00 Crore as NTI for FY 2020-21 against Rs. 0.01 Crore claimed by the Petitioner.

### 3.1.3.10 Annual Fixed Charges (AFC) for FY 2020-21

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

**Table 3.14: Annual Fixed Charges for FY 2020-21 (Rs. Crore)**

Particulars	Approved in T.O. dated 18.04.2020	Claimed by the Petitioner	Approved after truing up
Depreciation	60.95	67.87	61.38
Interest on Loan & Financial Cost	76.23	204.91	78.25
Interest on Working Capital	0.00	0.00	0.00
O&M expenses	84.40	84.75	83.61
RoE	52.02	56.63	52.02
<b>Total Annual Fixed Costs</b>	<b>273.60</b>	<b>414.16</b>	<b>275.26</b>
NTI	0.04	0.01	6.00
<b>Net AFC</b>	<b>273.56</b>	<b>414.15</b>	<b>269.27</b>

Accordingly, trued-up AFC for FY 2020-21 works out to Rs. 269.27 Crore. The surplus for FY 2020-21 alongwith the carrying cost works out to Rs. 5.11 Crore, and the same shall be adjusted in the AFC of FY 2022-23.

### 3.1.4 Capacity Charge for FY 2020-21 and Energy Charge Rate (ECR) for FY 2020-21

Based on the above analysis for all the heads of expenses of AFC, the Commission has after

truing up, approved the Annual Fixed Charges (AFC) of the Petitioner attributable to its beneficiary for FY 2020-21.

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**

*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.*

*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:*

$$CC1 = (AFC/12) (PAF1 / NAPAF) \text{ subject to ceiling of } (AFC/12)$$

$$CC2 = (AFC/6) (PAF2 / NAPAF) \text{ subject to ceiling of } ((AFC/6) - CC1)$$

$$CC3 = (AFC/4) (PAF3 / NAPAF) \text{ subject to ceiling of } ((AFC/4) - (CC1+CC2))$$

$$CC4 = (AFC/3) (PAF4 / NAPAF) \text{ subject to ceiling of } ((AFC/3) - (CC1+CC2+CC3))$$

$$CC5 = (AFC \times 5/12) (PAF5 / NAPAF) \text{ subject to ceiling of } ((AFC \times 5/12) - (CC1+CC2+CC3+CC4))$$

$$CC6 = (AFC/2) (PAF6 / NAPAF) \text{ subject to ceiling of } ((AFC/2) - (CC1+CC2+CC3+CC4+CC5))$$

$$CC7 = (AFC \times 7/12) (PAF7 / NAPAF) \text{ subject to ceiling of } ((AFC \times 7/12) - (CC1+CC2+CC3+CC4+CC5+CC6))$$

$$CC8 = (AFC \times 2/3) (PAF8 / NAPAF) \text{ subject to ceiling of } ((AFC \times 2/3) - (CC1+CC2+CC3+CC4+CC5+CC6+CC7))$$

$$CC9 = (AFC \times 3/4) (PAF9 / NAPAF) \text{ subject to ceiling of } ((AFC \times 3/4) - (CC1+CC2+CC3+CC4+CC5+CC6+CC7+CC8))$$

$$CC10 = (AFC \times 5/6) (PAF10 / NAPAF) \text{ subject to ceiling of } ((AFC \times 5/6) - (CC1+CC2+CC3+CC4+CC5+CC6+CC7+CC8+CC9))$$

$$CC11 = (AFC \times 11/12) (PAF11 / NAPAF) \text{ subject to ceiling of } ((AFC \times 11/12) - (CC1+CC2+CC3+CC4+CC5+CC6+CC7+CC8+CC9+CC10))$$

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

*Provided that in case of generating station or unit thereof or transmission system or an element thereof, as*

the case may be, under shutdown due to Renovation and Modernisation, the generating company or the transmission licensee shall be allowed to recover part of AFC which shall include O&M expenses and interest on loan only.

Where,

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

NAPAF = Normative plant availability factor in percentage.

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

PAFY = Percent Plant availability factor achieved during the Year.

CC1, CC2, CC3, CC4, CC5, CC6, CC7, CC8, CC9, CC10, CC11 and CC12 are the Capacity Charges of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th months respectively.

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.

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).

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

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

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:

For gas and liquid fuel based stations

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

Where,

*AUX = Normative auxiliary energy consumption in percentage.*

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

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

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

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

*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.*

*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."*

As discussed in the Commission's Order dated 05.04.2019, based on the report of the independent Consultant appointed for the purpose of determination of Gross Station Heat Rate of the gas based plants of M/s SEPL and M/s GIPL, the Commission approved the Design Station Heat rate as 1911.809 kCal/kWh and Gross SHR as 2007.4 kCal/kWh for the Petitioner's plant in accordance with the Regulations. Further, it is to be noted that SHR is a controllable factor which can be optimised through efficient operations. As per MYT Regulations, variation in respect of controllable factor is subject to sharing of gain/loss, on account of efficient operation with respect of achievement of optimum actual SHR by the Petitioner. As per aforesaid Order dated 05.04.2019, the Petitioner will be eligible for incentive on account of lower SHR if the same is below 1988.05 kCal/kWh and disincentive if the actual SHR exceeds 2007.4 kCal/kWh, however, there will be no

incentive or disincentive in the range of 1988.05 kCal/kWh to 2007.4 kCal/kWh. The relevant extract of the Order dated 05.04.2019 is as follows:

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

...

...

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

The Commission analysed the invoices raised by the fuel supplier for supply of fuel to the Petitioner’s plant, Gross generation as well as net generation from the Petitioner’s plant, and other relevant information, that was required to work out the actual SHR and actual Auxiliary Energy Consumption (AUX), of the respective years as per UERC Tariff Regulations, 2018 for the purpose of truing up of the Energy Charges for FY 2020-21.

The Commission on the basis of the documents/information submitted by the Petitioner worked out the actual SHR as 1922.191 kCal/kWh for FY 2020-21, as against the normative SHR range, i.e. 1988.05 kCal/kWh to 2007.40 kCal/kWh approved by the Commission for the purposes of sharing of gain/losses on this account. Similarly, based on the energy generation data, the Commission worked out the actual auxiliary consumption as 2.101% for FY 2020-21, as against the Normative auxiliary consumption of 2.5% as provided in the Tariff Regulations. In accordance with

the UERC Tariff Regulations, 2018, Auxiliary Energy Consumption and SHR are controllable factors, and, therefore, financial impact of efficiency/inefficiency on the performance of the generator on these counts is to be shared between the generator and distribution licensee.

As can be seen from above, for FY 2020-21, since the actual SHR, i.e. 1922.191 kCal/kWh is below the Normative SHR range approved by the Commission, and also the actual auxiliary consumption, i.e. 2.101% is lower than the Normative auxiliary consumption provided in the Regulations, therefore, sharing of gain/loss has been carried out for both the SHR and Auxiliary Consumption as per the Regulations. In accordance with the UERC Tariff Regulations, 2018, the detailed computation of actual performance parameters, i.e. SHR and Auxiliary Energy Consumption vis-à-vis norms approved by the Commission alongwith sharing of gain/losses is shown in the Table below:

**Table 3.15: Truing-up of Energy Charge for FY 2020-21**

Particulars		Unit	FY 2020-21
CVPF (Weighted average GCV of fuel)		Kcal/SCM	9,328.01
Gas Consumption (SM3)		SM3	10,13,96,906
Total Fuel cost		Rs.	1,99,87,55,077
LPPF (Total Gas bill amount/ Total Gas taken during the month)		Rs./ SM3	19.71
Gross annual Generation		MU	492.06
Energy Sent out	A	MU	481.72
Station Heat Rate (Actual)		kCal/kWh	1,922.191
Station Heat Rate (Normative)		kCal/kWh	1,988.050
Auxiliary Consumption (Actual)		%'age	2.10%
Auxiliary Consumption (Normative)		%'age	2.50%
Energy Charge Rate (Normative)	B	Rs./kWh	4.309
Energy Charge Rate (Actual)	C	Rs./kWh	4.149
Energy charges to be recovered (Normative ECR)	D=A*B	Rs.	2,07,57,39,883
Energy charges to be recovered (Actual ECR)	E=A*C	Rs.	1,99,86,64,371
(Gain)/Loss	F=E-D		(7,70,75,512)
Sharing of Gain (1/3 of Gain)	G=1/3*F	Rs.	(2,56,91,837)
Energy Charge after sharing	H=D+F	Rs.	2,05,00,48,045
Energy Charge already claimed by SEPL	I	Rs.	2,09,58,72,741
Balance to be recovered or (refund)	J=H-I	Rs.	(4,58,24,696)

Accordingly, based on the above Table, net amount to be refunded to UPCL on account of truing-up of energy charges, works out to Rs. 4.58 Crore for FY 2020-21 which alongwith the carrying cost works out to Rs. 5.46 Crore, which shall be adjusted by the Petitioner in twelve equal instalments starting from April, 2022 in the monthly invoices to be raised on UPCL.

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

### 4.1 Capital Cost

The Commission, vide its MYT Order dated 27.02.2019, approved the Tariff for the Petitioner's plant for the third Control Period, i.e. FY 2019-20 to FY 2021-22. Regulation 12(3) of the UERC Tariff Regulations, 2018 stipulates that under the MYT framework, the performance of the generating company shall be subject to Annual Performance Review.

Regulation 12(3) of the UERC Tariff Regulations, 2018 specifies as under:

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

- e) 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;*
- f) 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).*
- g) Revision of estimates for the current and/or ensuing financial year, if required, based on audited financial results for the previous financial year;*
- h) Computation of the sharing of gains and losses on account of controllable factors for the previous year.*

*"*

The Commission subsequently vide its Tariff Order dated 26.04.2021, on approval of AFC for FY 2021-22, had approved the AFC for FY 2021-22 based on the approved capital cost as on COD, i.e. 20.11.2016 and further additional capitalization allowed by the Commission in the subsequent Orders. The Petitioner, in the present Petition, has proposed revision of estimates for FY 2021-22 based on the audited accounts for FY 2020-21.

The Commission, in this Order, has carried out the Truing up for FY 2020-21 in accordance with the UERC Tariff Regulations, 2018. In accordance with Regulation 12(3) of the UERC Tariff



Regulations, 2018, the scope of annual performance review is limited to the revision of estimates for the ensuing year, if required, based on the audited financial results for the previous year and does not provide for the revision of estimates for the current year and give effect on this account in the estimates of the ensuing year. Accordingly, the Commission shall carry out the truing up of FY 2021-22 based on the audited accounts for that year and give effect on this account during the proceedings for determination of AFC for FY 2023-24.

Further, the Commission observed that the Petitioner has projected a substantial increase in O&M expenses for FY 2021-22 as compared to the actuals claimed for truing up of FY 2020-21, with major increase noticeable under the head Repair & Maintenance expenses, in light of the fact that HGPI works have already been executed by the Petitioner in FY 2020-21. The Commission asked the Petitioner to submit reasons/justification for the same, in response to which the Petitioner submitted that the expenditure budget of FY 2021-22 is based on budget of FY 2020-21 with an escalation of 6.84%. In this regard, the Commission advises the Petitioner that it should strive to incur expenditure prudently and should not attempt to incur wasteful expenditure upto the normative level, and its claims would be allowed at the time of truing-up after prudence analysis of the expenditure incurred.

Further, the Petitioner has claimed additional capitalization of Rs. 0.22 Crore for FY 2021-22 under the head Plant & Machinery (others) amounting to Rs. 0.20 Crore, Office Equipment & Others amounting to Rs. 0.01 Crore and Computers amounting to Rs. 0.01 Crore.

The Commission has gone through the submission of the Petitioner, and regarding additional capitalization in FY 2021-22, the Commission is of the view that the same shall be allowed at the time of truing-up of FY 2021-22 based on the actual expenditure and after carrying out prudence check of the same, which is in line with the views taken by the Commission in the Business Plan approved for third Control Period vide Order dated 27.02.2019 and subsequent orders of the Commission as discussed above.

Further, as discussed in the preceding paras, the Petitioner has received part of the insurance proceeds amounting to Rs. 5.96 Crore in FY 2021-22, against the assets decapitalized in the books of accounts in FY 2020-21 on account of damaged components of GT. The Commission, as discussed before, shall consider the impact of the same while carrying out truing up of FY 2021-22 by adding the amount of insurance proceeds received to the NTI of FY 2021-22.

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

With regard to Multi Year Tariff, Regulation 10 of UERC Tariff Regulations, 2021 specifies as follows:

*"10. MYT Petition for the Control Period*

- (1) ...
- (2) ...
- (3) ...
- (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 fourth Control Period from FY 2022-23 to FY 2024-25 based on the approved capital cost for the respective years.

## **5.1 Physical Parameters**

### **5.1.1 NAPAF**

Regulation 47 of UERC Tariff Regulations, 2021 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 24.10.2017, the Commission while approving the PPA for the Petitioner's plant has approved the NAPAF as follows:

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

Accordingly, the Commission is of the view that the NAPAF of 85% approved for second Control Period in the Tariff Order dated 24.10.2017, and also approved by the Commission for third control period in its Order dated 27.02.2019, shall continue to be applicable for fourth Control Period as well without any change.

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

The Petitioner in its Petition has projected energy generation for the fourth Control Period from its 225 MW CCPP in line with the energy generation approved by the Commission in its Tariff Order dated 24.10.2017 for the second Control Period, and also for third control vide Commission's Order dated 27.02.2019.

Accordingly, the Commission approves saleable primary energy after deducting the normative auxiliary consumption of 2.5%, as 1553.61 MU for each year of the Control Period from FY 2022-23 to FY 2024-25.

## **5.2 Financial Parameters**

### **5.2.1 Additional Capitalisation for fourth Control Period**

The Commission vide its Tariff Order dated 24.10.2017 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, 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 in accordance with the prevailing Regulations as amended from time to time. Similar view was taken by the Commission while approving the Business Plan and Tariff Petition of the Petitioner for the third Control Period from FY 2019-20 to FY 2021-22.

In the present Petition, the Petitioner has claimed additional capitalisation of Rs. 20.00 Crore in FY 2022-23, under the head Plant & Machinery (Spares). The Petitioner further submitted that the procurement of balance Initial Spares have been postponed to FY 2022-23 to achieve optimisation in commercial and technical terms.

The Commission has noted the submission made by the Petitioner and observed that the amount of Rs. 20.00 Crore claimed by the Petitioner under Plant & Machinery (Spares) is an estimated amount and is not backed up by any firm contract/purchase order for the same. Accordingly, continuing with the methodology adopted by the Commission in the Tariff Order dated 24.10.2017 and subsequent orders of the Commission, the capitalization of spares shall be considered based on actual expenditure in the year of purchase, after prudence check and in accordance with the Regulations. Accordingly, the Commission approves nil additional capitalisation for the fourth Control Period from FY 2022-23 to FY 2024-25.

Accordingly, capital cost worked out as on 31.03.2021, i.e. Rs. 1209.56 Crore after considering the net additional capitalisation approved for FY 2020-21 has been considered as opening capital cost for FY 2022-23. Further, as discussed above, no additional capitalisation has been considered for FY 2021-22 which shall, however, be reviewed at the time of truing up of the respective financial year.

## 5.2.2 Depreciation

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

### ***"28. Depreciation***

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

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

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

...

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

...

*(6) In case of de-capitalization of assets in respect of generating station or unit thereof or distribution licensee or SLDC or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services. "*

The Petitioner has claimed depreciation from FY 2022-23 to FY 2024-25 based on the actual expenditure capitalised as per books of account. 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 fourth Control Period. Details of the depreciation claimed and approved for the fourth Control Period is as follows:

**Table 5.1: Depreciation approved by the Commission for FY 2022-23 to FY 2024-25 (Rs. Crore)**

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	63.77	61.80	63.77	61.80	63.77	61.80

### 5.2.3 Return on Equity

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

***“26. Return on Equity***

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

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

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

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

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

*...”*

The Petitioner has proposed additional capitalisation in its Business Plan Petition amounting to Rs. 20.00 Crore for FY 2022-23. As discussed earlier, the additional capitalisation will be approved based on the actual expenditure at the time of truing up of the respective year. Accordingly, the Commission has allowed the Return on Equity based on the opening capital cost of the respective financial year of the fourth 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 FY 2022-23 to FY 2024-25 (Rs Crore)**

Particular	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Opening Equity	365.45	340.78	371.45	340.78	371.45	340.78
Addition during the year	6.00	0.00	0.00	0.00	0.00	0.00
Closing Equity	371.45	340.78	371.45	340.78	371.45	340.78
Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>Return on Equity</b>	<b>57.57</b>	<b>52.82</b>	<b>57.57</b>	<b>52.82</b>	<b>57.57</b>	<b>52.82</b>

#### 5.2.4 Interest and Finance Charges

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

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

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

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

(3) *The repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalization of such asset.*

...

(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.*

*Provided that on account of additional capitalization during the year, interest on additional loan shall be calculated on pro-rata basis.*

...“

The Petitioner has considered the opening loan balance for FY 2022-23 as Rs. 1379.16 Crore. The Petitioner has also considered addition to normative loan of Rs. 14 Crore in FY 2022-23 on account of proposed additional capitalisation for the fourth Control Period. Further, the Petitioner has considered the weighted average rate of interest as 13.5% for each year of the fourth Control period from FY 2022-23 to FY 2024-25.

The interest rate of 12.36% as approved by the Commission for truing up of FY 2020-21 as discussed in Chapter 3 of this Order has been considered for working out the interest on normative loan for fourth Control Period from FY 2022-23 to FY 2024-25.

The Commission has considered the closing loan balance of FY 2020-21 as opening loan balance for FY 2021-22. The Commission has considered the depreciation for FY 2021-22 as the normative repayment for the year. The Commission has considered the closing loan balance for FY 2021-22 as the opening loan balance for FY 2022-23. As discussed in the Chapter of Business Plan, the Commission has decided to approve the additional capitalisation on actual basis and, accordingly, the Commission has not considered any addition to loan during each year of the fourth Control Period from FY 2022-23 to FY 2024-25. The Commission has considered the normative repayment equivalent to the approved depreciation for each year of the fourth Control Period from FY 2022-23 to FY 2024-25. The interest rate of 12.36%, as discussed above, has been considered to compute the interest on the average loan balance for each year of the fourth Control Period which shall, however, be reviewed at the time of truing up of subsequent years.

Accordingly, based on above discussion, the interest on loan approved by the Commission for the fourth Control Period from FY 2022-23 to FY 2024-25 is as shown in the Table given below:

**Table 5.3: Interest on Loan approved by the Commission for FY 2022-23 to FY 2024-25 (Rs. Crore)**

Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Interest on Normative Loan	180.05	63.95	167.78	56.31	155.51	48.67
Rate of Interest	13.50%	12.36%	13.50%	12.36%	13.50%	12.36%



### 5.2.5 Operation & Maintenance (O&M) Expenses

Regulation 48(1) of the UERC Tariff Regulations, 2021, 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		
2021-22	13.61	20.41	24.75	42.14
2022-23	14.18	21.27	25.79	43.91
2023-24	14.78	22.16	26.88	45.76
2024-25	15.40	23.10	28.01	47.69

Accordingly, based on the applicable O&M norms specified in the MYT Regulations, 2021, the normative O&M expenses claimed and allowed by the Commission for fourth Control Period from FY 2022-23 to FY 2024-25 are as follows:

**Table 5.4: O&M expenses approved by the Commission for FY 2022-23 to FY 2024-25 (Rs. Crore)**

Particular	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expense	93.97	93.97	97.92	97.93	102.05	102.06

### 5.2.6 Interest on Working Capital

The Petitioner submitted that it does not charge any interest on working capital in accordance with the Order of the Commission dated 18.04.2020 subject to receipt of funds within the specified time frame as provided in the said Order, and any delay in receipt of funds is being addressed separately on the quantum of Late Payment Surcharge in accordance with the order dated 23.03.2021 from the Commission.

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

“ ...

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

- i. 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;*
- ii. 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;*
- iii. Operation and maintenance expenses for one month;*
  - iv. Maintenance spares @ 30% of operation and maintenance expenses; and*
  - v. 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.*
- ...”*

As discussed in the Tariff Order dated 24.10.2017, the Commission vide its Order dated 17.04.2017 allowed the Petitioner to forego interest on working capital in lieu of non-chargeability of rebate by UPCL while making payment of generation bills raised by the Petitioner. Further, on the issue of delayed payment of generation bills by UPCL, the Petitioner has filed a separate Petition in the matter on which necessary directions have been given vide Commission’s Order dated 23.03.2021.

Accordingly, in line with the decision taken in the Tariff Order dated 24.10.2017 and aforesaid discussions, the Commission has not considered any interest on working capital while approving the AFC for fourth Control Period from FY 2022-23 to FY 2024-25.

### **5.2.7 Non-Tariff Income**

Regulation 46 of UERC Tariff Regulations, 2021 specifies as follows:

*“46. Non Tariff Income*

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

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

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

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*

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

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

The Petitioner has not proposed any non-tariff income in fourth Control Period from FY 2022-23 to FY 2024-25. In the absence of any yardstick for estimating the non-tariff income of the Petitioner, the Commission provisionally accepts the same while approving the AFC for the fourth Control Period from FY 2022-23 to FY 2024-25. However, the same shall be reviewed based on the actual audited accounts during true up of respective years.

#### 5.2.8 Annual Fixed Charges for fourth Control Period from FY 2022-23 to FY 2024-25

In accordance with the UERC Tariff Regulations, 2021, the Annual Fixed Charge (AFC), for the fourth 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 2022-23 to FY 2024-25 (Rs. Crore)**

Annual Fixed Charges	FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	63.77	61.80	63.77	61.80	63.77	61.80
Interest on Loan	180.05	63.95	167.78	56.31	155.51	48.67
Return on Equity	57.57	52.82	57.57	52.82	57.57	52.82
O&M Expenses	93.97	93.97	97.92	97.93	102.05	102.06
Interest on Working Capital	0.00	0.00	0.00	0.00	0.00	0.00
Less: Non-Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00
<b>Net AFC</b>	<b>395.36</b>	<b>272.53</b>	<b>387.04</b>	<b>268.85</b>	<b>378.90</b>	<b>265.34</b>
True up impact with carrying cost for FY 2020-21		(5.11)				
<b>Total Annual Fixed charges</b>	<b>395.36</b>	<b>267.42</b>	<b>387.04</b>	<b>268.85</b>	<b>378.90</b>	<b>265.34</b>

**5.2.9 Annual Fixed Charges, Capacity Charge and Energy Charge Rate (ECR) for FY 2022-23, FY 2023-24 and FY 2024-25.**

Based on the above analysis for all the heads of expenses of AFC, the Commission has approved the Annual Fixed Charges (AFC) of the Petitioner for the fourth Control Period attributable to its beneficiary.

Regulation 49 of UERC Tariff Regulations, 2021 specifies as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where,

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

NAPAF = Normative plant availability factor in percentage.

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

$PAF_Y$  = Percent Plant availability factor achieved during the Year.

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

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

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

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

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

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

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

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

(5) The energy charge shall cover the primary fuel cost and shall be payable by every beneficiary for the total energy actually 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 {Actual energy supplied (ex-bus) for the month in kWh.}

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

(a) For gas and liquid fuel based stations

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

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

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

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

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per

*standard cubic metre, as applicable, during the month.*

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

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

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

Based on the aforesaid Regulations, capacity charges and energy charges shall be recovered by the Petitioner from the Respondent corresponding to the contracted capacity.

Further, with regard to Energy charges, the Commission in the Tariff Order dated 26.04.2021 has observed as follows:

*"In this regard, it is observed that there has been a delay on the part of UPCL in making timely payments to the gas based generators and one generator has raised the issue that carrying cost on incentive on account of GSHR should not be levied as payment is not received by it on time. Besides allowing recovery of energy charge to the Petitioner, through periodic billing on UPCL, at GSHR of 2007.4 kCal/kWh is resulting in over recovery of energy charges to the Petitioner in the relevant year which eventually the Petitioner is required to return at the time of truing-up of the respective year, as the actual GSHR is low as compared to the SHR of 2007.4 kCal/kWh used by the Petitioner for raising the periodic invoices on UPCL. Accordingly, the Commission is of the view that the Petitioner shall raise the periodic invoices on UPCL based on actual GSHR calculated by it on periodic basis, subject to condition that the same shall be restricted to GSHR of 2007.4 kCal/kWh as approved by the Commission in its Order dated 05.04.2019. Further, the Commission would like to clarify that the methodology for sharing of gain/loss on account of efficient operation with respect to achievement of the optimum actual Gross Station Heat Rate by the Generator shall remain unaltered."*

Accordingly, in light of the above discussion and views taken by the Commission in Order

dated 26.04.2021 with respect to recovery of energy charges by the Petitioner from UPCL, the Commission is of the view that the Petitioner shall raise the periodic invoices on UPCL based on actual GSHR calculated by it on periodic basis, subject to condition that the same shall be restricted to GSHR of 2007.4 kCal/kWh as approved by the Commission in its Order dated 05.04.2019. Further, the Commission would like to clarify that the methodology for sharing of gain/loss on account of efficient operation with respect to achievement of the optimum actual Gross Station Heat Rate by the Generator shall remain unaltered.

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

**(D.P. Gairola)**  
**Member (Law)/Chairman (I/C)**