



ASSAM ELECTRICITY REGULATORY COMMISSION

FILE NO. AERC.620/2017

Petition No.:08/2017

ORDER SHEET

07.09.2017

Before the Assam Electricity Regulatory Commission
ASEB Campus, Dwarandhar,
G. S. Road, Sixth Mile, Guwahati – 781 022

Assam Power Generation Corporation Limited

-----Petitioner

In the matter of

Review Petition No.08 of 2017 for review of
Tariff Order dated March 31, 2017 of the
Commission against APGCL Petitions for
Truing up of FY 2014-15 and FY 2015-16,
ARR for FY 2016-17 to FY 2018-19 and
Tariff for FY 2017-18.

CORAM

Shri Naba Kumar Das, Chairperson
Shri Subhash C. Das, Member

ORDER

1. The Assam Power Generation Corporation Limited (herein after referred as “the Petitioner” or “APGCL”) has filed a Review Petition on May 23, 2017 before the Commission for review of Tariff Order dated March 31, 2017 of the Commission against APGCL Petitions for Truing up of FY 2014-15 and FY 2015-16, ARR for FY 2016-17 to FY 2018-19 and Tariff for FY 2017-18.
2. The Petitioner prayed for review of the Order dated March 31, 2017 on the following issues:
 - 2.1. Prior Period Expense of Rs 8.87 Cr for FY 2014-15 and Rs 0.15 Cr for FY 2015-16 should be approved.
 - 2.2. Depreciation for KLHEP for FY 2016-17 onwards should be approved as per the AERC MYT Regulations, 2015.
 - 2.3. For NRPP, Gross Station Heat Rate of 1988 kCal/kWh should be approved by considering Design Station Heat Rate of 1893.4 kCal/kWh
 - 2.4. As NRPP’s gas turbine is Advanced F Class machine, the O&M cost for NRPP should be approved at Rs. 30.29 Lakh/MW, Rs. 32.35 Lakh/MW and Rs. 34.56 Lakh/MW respectively for FY 2016-17, FY 2017-18 and FY 2018-19. APGCL stated that at the time of filing of petition, by mistake norm for other type of Gas Turbine was proposed.
 - 2.5. To allow total Fixed Charges of KLHEP for an amount of Rs. 69.78 Crore for FY 2016-17 and accordingly recalculate the surplus amount to be refunded to APDCL.
3. The Petitioner filed the Review Petition on May 23, 2017, i.e., within the time specified in Regulation 34 of the AERC (Conduct of Business) Regulations, 2004, from date of issue of the Order in Petition No. 37 of 2016. Accordingly, the same was admitted.
4. Further, the Commission vide Notice dated June 14, 2017 scheduled a hearing on the Review Petition on July 10, 2017.

5. As scheduled, a Hearing on Review Petition was conducted on July 10, 2017 in the Court Room of the Commission. Ms M B Choudhury, Mr. A Borthakur, Mr. R Das and Mr. A.K.S Zaman represented the Petitioner during the Hearing.

During the Hearing, APGCL submitted that interest expenses/(income) claimed under Prior Period items for FY 2014-15 and FY 2015-16 is pertaining to period from 2005-06 onwards. The Commission noted that year-wise details of the prior period interest expenses/(income) were not submitted along with the Truing up Petition.

With regard to other issues, APGCL reiterated the submissions already made vide the Petition.

After hearing APGCL, the Commission directed the following:

- 5.1. APGCL needs to submit the detailed computation of interest related prior period expenses/(income) for FY 2014-15 and FY 2015-16 providing the year-wise details, justification and documentary evidences.
 - 5.2. The Petitioner needs to submit the billing details for KLHEP along with the copies of actual bills for FY 2016-17.
6. In reply, APGCL filed an additional submission on July 19, 2017 as under:
 - 6.1. APGCL submitted that the Commission has approved total interest and finance charges of Rs. 64.25 Crore as against Rs. 113.50 Crore mentioned in audited accounts for the period from FY 2007-08 to FY 2015-16. APGCL further submitted that the Commission has approved the interest and finance charges based on its own computation and hence, any prior period expenses/(income) incurred by APGCL during this period are not subject to the Commission's consideration.
 - 6.2. APGCL submitted that the billing for FY 2016-17 was done as per Tariff Order for FY 2015-16 and accordingly total amount of Rs. 318.72 Crore (Rs. 26.56 Crore per month) was billed as fixed charges for APGCL as whole during FY 2016-17. The copy of the bills for FY 2016-17 were submitted by APGCL. Since, the billing has already done at 100% and the revenue recognized accordingly, the consideration of only 50% of the AFC of KLHEP is disproportionate to billing done, due to which cumulative revenue surplus till FY 2017-18 is inflated by Rs. 34.89 Crore.

Petitioner's Submissions

7. The issue wise submissions made by the Petitioner, after considering the additional submissions are captured below:
 - 7.1. **Issue No 1- Prior Period Expenses/(Income):** The salient submissions of the Petitioner are:
 - During FY 2014-15, the Commission has approved Rs 8.87 Crore as Prior Period Income pertaining to withdrawal of Interest on State Government Loan w.r.t. Work in progress as against claim of zero. Further, during FY 2015-16, the Commission has approved Rs 0.15 Crore as Prior Period Income pertaining to withdrawal of excess capitalization interest on Government of Assam as against claim of zero.
 - There is contradiction in the Tariff Order. In Section 4.18.3 of the Order, the Commission has stated that it has disallowed the prior period expenses/(income) towards interest and finance charges, however, in table 36 & 55, the Commission has considered Prior Period Income pertaining to Interest.
 - The Commission approved interest on Loans from Government of Assam by way of its own calculation from FY 2011-12 Truing Up onwards only and has not considered any interest on Work in Progress in the approved ARR.
 - APGCL submitted that the Commission has approved total interest and finance charges of Rs. 64.25 Crore as against Rs. 113.50 Crore mentioned in audited accounts for the period from FY 2007-08 to FY 2015-16.
 - 7.2. **Issue No 2-Depreciation for KLHEP for FY 2016-17 to FY 2018-19:** The salient submissions of APGCL are:
 - In the computation of Depreciation shown in Annexure-2 of the Tariff Order, it is observed that rate of Depreciation considered for KLHEP for FY 2016-17 onwards is not as per the AERC MYT Regulations, 2015.
 - 7.3. **Issue No. 3 – Station Heat Rate for Namrup Replacement Power Plant (NRPP):** The salient submissions of APGCL are:

- Heat rate of NRPP should be derived after converting Net Calorific Value (NCV) to Gross Calorific Value (GCV) on the ground that the Design Combined Cycle Heat Rate of 1705.8 kcal/kWh of NRPP is based on NCV basis.
- The data for gas given by BHEL in the guaranteed particulars is on NCV basis including the Gross Plant Heat Rate. Further, an extract from DPR of NRPP submitted to the Commission vide Letter No. APGCL/CGM(G)/MYT/2016-19/232/Part-I/72 dated February 23, 2017 clearly mentioned that the net calorific value of gas is 8200 kcal/SCM and the Gross Station Heat Rate is 1705.8 kcal/kWh. Also in the same extract, the range of net calorific value was given as 8000-8500 kcal/SCM.
- While calculating total gas consumption, the Commission has considered Gross Calorific Value. Thus, while calculating Station Heat Rate, the calorific value needs to be considered at Gross, otherwise APGCL will have to bear around 11% loss in cost of gas. Due to similar problems, APGCL has already suffered loss for NTPS and LTPS from FY 2007-08 to FY 2013-14 and had to approach the Government of Assam for financial help.
- APGCL therefore, requested the Commission to consider the design Gross Station Heat Rate of NRPP as 1893.4 (1705.8 kcal/kWh on NCV X 1.11) kcal/kWh on GCV and approve the Gross Station Heat Rate of NRPP as 1988 (1893.4 kcal/kWh on GCV X 1.05) kcal/kWh on GCV as per the MYT Regulations, 2015.

7.4. Issue No. 4 – O&M Cost for NRPP for the MYT Control Period from FY 2016-17 to FY 2018-19: The salient submissions of APGCL are:

- APGCL submitted that, in the MYT Petition for FY 2016-17 to FY 2018-19, the O&M expenses of NRPP was by mistake proposed by considering the Regulatory norms for 'Gas Turbine/Combined cycle Generating Stations other than small gas turbine power generating stations' excluding the provisions for ROP. However, NRPP's gas turbine is Advanced F Class machine. Accordingly, APGCL should have proposed the O&M cost for NRPP considering the norms for similar machines as Rs. 30.29 Lakh/MW, Rs. 32.35 Lakh/MW and Rs. 34.56 Lakh/MW for FY 2016-17, FY 2017-18 and FY 2018-19, respectively, excluding the provisions for ROP as per Regulatory norms.
- APGCL has therefore, requested the Commission to consider its submission on inadvertent error and the inconvenience caused thereof. APGCL requested for revision of O&M cost of NRPP as per the norms for '*Advance F Class Machines*' in accordance with the MYT Regulations, 2015.

7.5. Issue No. 5– Tariff Order for FY 2017-18: The salient submissions of APGCL are:

- APGCL submitted that the Commission in Tariff Order dated March 31, 2017 has approved the Cumulative Revenue Gap/(Surplus) in Table 97 on Page No. 107 and 108
- While calculating the Cumulative Revenue Gap/(Surplus), Annual Fixed Charges of KLHEP has been considered as Rs. 34.89 Crore, whereas in Table 75 at Page no. 90, Net ARR of KLHEP has been approved as Rs. 69.78 Crore.
- It is noted that total Annual Fixed Charges has been apportioned to Capacity Charge and Energy Charge in the ratio of 50:50 in line with MYT Regulations, 2015. Accordingly, the Commission has considered 50% of the total Annual Fixed Charges, i.e., Rs. 34.89 Crore in the calculation, but the balance 50% of the Annual Fixed Charges, which is recoverable as Energy Charge has not been considered.
- However, APGCL has claimed the Annual Fixed Charges in FY 2016-17 as per Tariff Order dated July 24, 2015. As FY 2016-17 is over, the total Fixed Charges (Capacity Charges and Energy Charges) of KLHEP amounting to Rs. 69.78 Crore should be considered to calculate Revenue Gap/(Surplus) for FY 2016-17.

Analysis and Decision

8. Having heard the Petitioner and after taking on record the submissions made by the Petitioner, the Commission's analysis and decision arrived at are discussed in the following paragraphs:

9. **Issue No. 1- Prior Period Expenses/(Income)**

- 9.1. The Commission has verified the year wise break-up of the prior period income on account of interest on Government of Assam loan.
- 9.2. The Commission in Tariff Order dated March 31, 2017 has considered the Prior period income of Rs. 8.87 Crore for FY 2014-15 and Rs. 0.15 Crore towards our provision of interest and finance charges of Government of Assam loan as against the income of Rs. 13.04 Crore and 0.22 Crore for FY 2014-15 and FY 2015-16, respectively, as per audited accounts.
- 9.3. The Commission has allowed interest on State Government loan in accordance with Regulations. However, interest on other loans, e.g., PFC, ADB, etc. have been allowed based on actual audited accounts. Hence, consideration of total income on account of interest and finance charges would not be appropriate. Further, no year-wise break-up of such prior period income on account of interest on Government of Assam loan was submitted. It is observed that in the past true-up orders, the Commission after prudent check has approved Interest expenses for State Government Loan at about 68% of Interest expenses provided in the Audited Accounts. In view of this, while considering the income for prior period and in absence of year-wise details of income, the Commission has considered a proportionate prior period income (@ 68% of the booked prior period income) on account of interest of State Government loan. The approach adopted for consideration of prior period income on account of interest charges is appropriate.
- 9.4. Now, since year-wise break up of income on account of interest of Government of Assam Loan has been submitted by APGCL, the Commission has extended the approach adopted in MYT Order and considered the income on account of interest of Government of Assam loan in the same proportion of interest expenses allowed by the Commission for each individual year against the interest expenses in audited accounts.
- 9.5. Accordingly, the Commission has now approved
- a) The prior period income pertaining to withdrawal of interest on State Govt. Loan w.r.t Work in Progress (WIP) of Rs. 7.17 Crore for FY 2014-15 as against Rs. 13.04 Crore
 - b) The prior period income pertaining to Withdrawal of excess capitalization interest on GoA loan of Rs. 0.15 Crore for FY 2015-16 as against Rs 0.22 Crore
- 9.6. With regard to Section 4.18.3 of the Order, there was a typographical error related to disallowance of Prior Period Expense/(Income) related to Interest. The same may be considered modified as stated below:
- “4.18.3 The Commission has disallowed the prior period expenses/(income) towards depreciation, since, the depreciation had not been allowed by the Commission based on audited account. The Commission in past Orders had allowed depreciation based on its own computation.”*

Hence, the Commission is of the view that review is admissible on this issue and impact in the cumulative revenue gap has been considered in this Order at Issue No. 5.

10. **Issue No. 2 – Depreciation for KLHEP for FY 2016-17 to FY 2018-19**

- 10.1. In this context, the Commission in its Tariff Order dated March 31, 2017 has stated as under:
- “For computation of depreciation, the Commission has considered the Station-wise closing GFA for FY 2015-16 as approved in this Order, as the Opening GFA for FY 2016-17. The capitalisation approved for the respective years of the Control Period has been considered as asset addition during the year. **The Commission has considered the scheduled depreciation rates as specified in MYT Regulations, 2015.***
- ...
- The Station-wise computation of Depreciation is provided in Annexure 2 to this Order”*
(emphasis added)
- 10.2. The Commission in its Order has clearly specified that it has considered scheduled rates of depreciation as specified in MYT Regulations, 2015. The Commission further clarifies that the revised scheduled rates of depreciation are applicable on all existing assets as well as addition of assets.

- 10.3. While approving the depreciation for FY 2016-17 to FY 2018-19, the Commission has adopted a different methodology vis-à-vis the normal practice of allowing depreciation as per applicable rates on average GFA for the year.
- 10.4. Regulation 33.2 of MYT Regulations, 2015 specifies that:
“33.2 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.” (emphasis added)
- 10.5. Accordingly, the Commission has considered the depreciation up to 90% of Gross Fixed Assets as per MYT Regulations. In the approach where depreciation was allowed simply on average GFA, it was difficult to restrict depreciation on any assets up to 90%. However, in the methodology adopted by the Commission, the depreciation on all asset classes has been rightly restricted to 90%, in accordance with the MYT Regulations, 2015.

In view of the submission made by APGCL, the Commission is of the view that the computation of depreciation shall be verified and changed, if required, at the time of truing up for FY 2016-17.

11. Issue No. 3 – Station Heat Rate for Namrup Replacement Power Plant (NRPP)

- 11.1. The Commission in Tariff Order dated March 31, 2017 has determined the provisional tariff for NRPP. As regards Station Heat Rate, the Commission has stated as under:
“5.5.4 Performance Parameters for the Control Period

Commission’s Analysis

Based on contract document of NRPP as submitted by APGCL, the Commission notes that Design Heat Rate of NRPP is 1705.8 kcal/kWh. Serial No. 3 of Schedule II of Guarantee data states “Weighted Gross Plant Heat Rate of GT 100% base load & GT 75% load at rated site ambient condition (kcal/kWh) = 1705.8 (note-1).”

*The Guarantee data clearly mentioned the Design Heat Rate as Gross Plant Heat Rate, hence, the contention of APGCL regarding the heat rate on NCV is not justified. **Hence, the Commission has computed the GSHR for combined cycle operation for NRPP as 1791 kcal/kWh (1705.8 x 1.05).***

*Further, after perusing APGCL’s submission regarding higher GSHR, the Commission notes that there may be actual variation in GSHR during the operation of the plant, which would be known only after Performance Guarantee Test of NRPP. **The Commission, at this stage, has considered the Design SHR as per the provisions of the MYT Regulations, 2015 in the absence of performance guarantee tests. The Commission will take a view in the matter based on the performance guarantee test reports. The Commission directs APGCL to submit the performance guarantee test reports after completion of the same.” (emphasis added)***

- 11.2. The Commission in the Order has clearly stated that it will take a view regarding the Station Heat Rate of NRPP based on performance guarantee tests at time of determination final Tariff, after commissioning of NRPP. Therefore, with regard to this issue, the Petitioner may approach the Commission at the time of determination of final tariff for NRPP.

Hence, the Commission is of the view that review is not admissible on this issue.

12. Issue No. 4- O&M Cost for NRPP for the MYT Control Period from FY 2016-17 to FY 2018-19

- 12.1. The Commission notes that APGCL is seeking review in this matter on account of erroneous submission made by APGCL in its Multi Year Tariff Petition.
- 12.2. The Commission in Tariff Order dated March 31, 2017 has determined provisional tariff for NRPP and it is understood that NRPP is not yet commissioned. Therefore, Commission deems it fit not revise/modify the norm at this point of time. APGCL may submit documentary evidences to substantiate its claim of O&M expenses of NRPP under *Advance F Class Machines* at the time of determination of final tariff for NRPP.

Hence, the Commission is of the view that review is not admissible on this issue.

13. **Issue No. 5- Tariff Order for FY 2017-18**

13.1. The Commission in Tariff Order dated March 31, 2017 has undertaken the Annual Performance Review for FY 2016-17 as a special case. The Commission on Page No. 107 of Order has stated as under:

“For FY 2016-17, APGCL has been billed APDCL as per Generation Tariff approved in Order dated July 24, 2015. This tariff is inclusive of Fixed Charges of NRPP, which was not commissioned eventually not only in FY 2015-16 but also in FY 2016-17. Hence, this additional amount recovered from APDCL is required to be refunded back to APDCL so as to ease the burden on consumers instead of at time of Truing up for FY 2016-17. Hence, the Commission has considered to pass on revenue surplus determined for FY 2016-17, as a special case.

The Commission has computed the Revenue Gap/(Surplus) on account of Annual Fixed Charges. The Commission has considered the Annual Fixed Charges approved in this Order vis-à-vis Annual Fixed Charges billed by APGCL as per Order dated July 24, 2015. As regards the energy charges, since APGCL is recovering the cost through FPA, the Commission will consider the actual fuel cost vis-à-vis fuel cost approved in the present Order based on approved performance parameters as the time of final truing up for FY 2016-17. No carrying cost has been considered on Revenue Gap/(surplus) for FY 2016-17.” (emphasis added)

13.2. The Commission has clearly stated that the Revenue Gap/(Surplus) after Annual Performance Review for FY 2016-17 has been considered on account of Annual Fixed Charges only so as to ease the burden on consumers instead of at time of Truing up for FY 2016-17. Also, the part of cost towards energy charges has already been recovered by APGCL during the year.

13.3. However, the Commission noted that billing was done by APGCL during FY 2016-17 based on the Tariff Order for FY 2015-16. From the copies of the bills submitted by APGCL, the Commission notes that no separate billing was done for Capacity Charges and Energy Charges during FY 2016-17. In view of this, the cumulative revenue gap/(surplus) computed by the Commission needs to be revised.

13.4. The Commission has revised the cumulative Revenue Gap/(Surplus) computed in Table 97 of Tariff Order dated March 31, 2017, as shown in the following Table:

Table 1: Revised Cumulative Revenue Gap/(Surplus) approved by the Commission

Sr. No.	Particulars	Rs. Crore
1	Stand-alone Revenue Gap/(Surplus) for FY 2014-15 along with carrying cost (A)	45.07
2	Stand-alone Revenue Gap/(Surplus) for FY 2015-16 along with carrying cost (B)	(29.23)
3	Annual Performance Review for FY 2016-17	
3.1	Annual Fixed Charges – NTPS	52.20
3.2	Annual Fixed Charges- LTPS	87.06
3.3	Annual Fixed Charges- KLHEP	69.78
3.4	Sub-total	209.04
3.5	Less: Annual Fixed Charges billable as per Order dated July 24, 2015	318.72
3.6	Revenue Gap/(Surplus) for FY 2016-17 (C)	(109.68)
4	Impact of APGCL Review Order dated December 21, 2015 (D)	68.75
5	Cumulative Revenue Gap/(Surplus) till FY 2017-18 (A+B+C+D)	(25.08)
6	Monthly amount recovered/(refunded)	(2.09)

13.5. Further, the Commission noted that billing for the period of April 2017 to July 2017 must

have been done based on the Tariff Order dated March 31, 2017. Hence, the final amount to be refunded to APDCL is computed as shown in the following Table:

Table 2: Cumulative Revenue Gap/(Surplus) approved by the Commission (Rs. Crore)

Sr. No.	Particulars	Rs. Crore
1	The amount to be refunded from April 2017 to July 2017 based on Tariff Order dated March 31, 2017 at Rs. 5.18 Crore per month	20.72
2	Remaining amount to be refunded based on revised Cumulative Revenue Surplus approved in this Order (Rs 25.08 Cr less Rs 20.72 Cr)	4.36
3	Monthly amount to be refunded from August 2017 to March 2018	0.55

The Commission approves the revised cumulative Revenue Surplus of Rs. 25.08 for APGCL. After considering the already refunded amount of Rs 20.72 Cr, the remaining amount has to be refunded to APDCL in eight equal monthly instalments of Rs. 0.55 Crore as adjustments to the monthly bill for the period from August 2017 to March 2018.

With the above observations and decisions on the issues submitted for review, the Review Petition (Petition 8/2017) filed by the Petitioner stands disposed of.

Sd/-
(S. C. Das)
Member, AERC

Sd/-
(N. K. Das)
Chairperson, AERC