

Unit 1 from FY 2011-12 (166 days) to FY 2013-14 and of Unit 2 from FY 2010-11 (20 days) to FY 2013-14 and ARR and Tariff Determination for Unit-1 and 2 for FY 2017-18.

1.2. In exercise of the powers conferred under Sections 62, 64 and other provisions of Electricity Act 2003, read with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2014, and other enabling Regulations, the Commission, after carefully considering each of the submissions of the Petitioner, Respondents and suggestions/objections submitted by the Stakeholder, has passed the following Order.

1.3. This Order has been structured in following sections as given under:

Section 1: General

Section 2: Summary of filing of True up and Tariff determination process.

Section 3: Summary of objections/ comments/ suggestions received from Stakeholders and GLPL's response thereon.

Section 4: Analysis of True up of GLPL Units 1 for the period from FY 2011-12 (166 days) to FY 2013-14 and for Unit 2 for the period from FY 2010-11 (20 days) to FY 2013-14.

Section 5: Determination of ARR and Tariff for GLPL Units 1 & 2 for FY 2017-18.

SECTION 2

Summary of Filing of True up and Tariff determination process

- 2.1. GLPL filed a petition on 01.02.2017 for truing up of Unit 1 from FY 2011-12 (166 days) to FY 2013-14 and of Unit 2 from FY 2010-11 (20 days) to FY 2013-14 and ARR and Tariff Determination for Unit-1 and 2 for FY 2017-18.
- 2.2. The Commission vide its order dated 12.08.2015 in Petition No. 483/14 had approved the final Capital Cost of GLPL Unit 1 as on COD i.e., 18.10.2011 and ARR & Tariff for FY 2011-12 (166 days) to FY 2013-14. Further, the Commission vide its order dated 12.08.2015 in Petition No. 481/14 had approved the final Capital Cost of GLPL Unit 2 as on COD i.e., 12.03.2011 and ARR & Tariff for FY 2010-11 (20 days) to FY 2013-14.
- 2.3. The petition was admitted on 09.02.2017 by the Commission for further consideration.
- 2.4. As required under Section 64(2) of the Electricity Act, 2003, public notice with salient features of the petition inviting objections/comments/suggestions were published in the following newspapers on the dates mentioned against each:

Table 1: Details of Public Notice

Sl. No.	Name of News Paper	Date of publishing
(i)	DNA	24.02.2017
(ii)	Dainik Navajyoti	24.02.2017
(iii)	Rajasthan Patrika	24.02.2017

- 2.5. The petition was also placed on RERC and RVUN websites. The objections/comments/suggestions were received from Shri. G. L. Sharma and Discoms.
- 2.6. The Commission forwarded the objections/ comments/ suggestions of stakeholders to GLPL for its reply. The Petitioner replied to the Comments/ Suggestions/ Objections made by the objector vide its letter dated 01.05.2017.

- 2.7. The Commission vide its letter dated 16.05.2017 and 15.12.2017, communicated the data gaps in the Petition. The Petitioner furnished the information vide its letters dated 05.06.2017 and 21.12.2017 respectively. The Petitioner also submitted additional information vide its letters dated 01.08.2017 and 04.12.2017.
- 2.8. The Public hearing in the matter was held on 06.12.2017.
- 2.9. To facilitate reference, an index of the issues and points dealt with is placed in Annexure-1.

SECTION 3

Summary of Objections/Comments/Suggestions received from Stakeholders and GLPL's response thereon

A. True-up of Unit 1 for the period from FY 2011-12 (166 days) to FY 2013-14 of for Unit 2 from FY 2010-11(20 days) to FY 2013-14 of Unit 2:

3.1 PLF and Availability

Stakeholder's Comments/suggestions:

3.1.1 The Stakeholder submitted that the PLF and availability of Giral Unit 1 for FY 2011-12 to FY 2013-14 and of Giral Unit 2 for FY 2010-11 to FY 2013-14 is in variation with the normative PLF and availability. The actual availability submitted by the Petitioner cannot be taken as correct, as the Petitioner has not provided the SLDC certificates to substantiate the same. The Stakeholder further submitted that the Commission in the past has considered the actual availability equal to the actual PLF. Therefore, adopting the same approach Fixed/capacity charges may be reduced proportionately.

3.1.2 The Stakeholder further submitted that the Commission's order dated 24.02.2016 quoted by the Petitioner is not relevant in this case, as whatever has been mentioned in order dated 24.02.2016 is regarding RWPL. Further, in the order dated 24.02.2016, necessary reduction on pro-rata basis was made due to actual availability being lower than the normative availability and the same is stated in the Para 5.165 of the same order.

GLPL's Response

3.1.3 The Petitioner in response has submitted that the availability of the plant is different from actual PLF as the lignite supplied to GLPL is having 5-6% of Sulphur. The Petitioner further submitted that due to very high content of Sulphur, huge quantity of lime is required for mixing which is in the range

of 30% of total lignite fed to combustor to bring oxides of Sulphur, SOX within environmentally safe limits. The Petitioner further submitted that since the boiler is not capable enough to handle this huge quantity of lime, consequently choking of back pass results into long shut down of the units.

3.1.4 The Petitioner further submitted that to avoid shut down of the units, the plant was operated at partial load and further due to high Sulphur in lignite many other failures were occurred including huge damages to lignite chain feeder causing shut down of units.

3.1.5 The Petitioner further submitted that during rainy season on account of wet lignite and choking of bunkers, units remain shut down for a longer period of time due to chocking of lignite section and lignite bunker which is beyond the control of the Petitioner.

3.2 **Auxiliary Consumptions**

Stakeholder's Comments/suggestions:

3.2.1 The Stakeholder submitted that the actual auxiliary consumption of Giral Unit 1 for FY 2011-12 to FY 2013-14 and Giral Unit 2 for FY 2010-11 to FY 2013-14 is in variation with the normative auxiliary consumption. The Stakeholder requested the Commission to allow the auxiliary consumption only on the normative basis and for the excess losses, necessary revenue loss may be accounted. The Commission may adopt the same approach as was adopted by the Commission in its order dated 24.02.2016.

GLPL's Response

3.2.2 Regarding auxiliary consumption the Petitioner has submitted that the auxiliary consumption is higher due to frequent shutting down of the units and also due to partial load. The Petitioner further requested the commission to consider the auxiliary consumption as claimed in the petition as it is beyond the control of the Petitioner.

3.3 **Gross Station Heat Rate**

Stakeholder's Comments/Suggestions:

3.3.1 Regarding the SHR of Giral Unit 1 &2, the Stakeholder submitted that the documents regarding the SHR, provided by the Petitioner does not state SHR as 2483.94 kCal/kWh. The documents submitted indicates the guaranteed design heat rate as 1994.60 kCal/kWh and therefore, the SHR as per Regulations works out to be 2124.249 kCal/kWh against the normative heat rate adopted by the Commission as 2449.50 kCal/kWh. Therefore, the Commission may consider the SHR as 2124.24 kCal/kWh against 2449.50 kCal/kWh for Giral Unit 1 &2.

GLPL's Response

3.3.2 Regarding SHR of Giral Unit 1&2, the Petitioner submitted that the documents in the petition contain two part, one is turbine heat rate and other is boiler efficiency. The Petitioner further submitted that in the petition filed, page number 162 contains Turbine heat rate of 1994.6 Kcal/kWh and page number 163 contains boiler efficiency of 80.30%. The Petitioner submitted the calculation of SHR as given below:

Guaranteed Heat Rate = Turbine Heat Rate/Boiler efficiency = 2483.94 kcal/kWh

Station Heat Rate = 2483.94*1.065 = 2645.39 kcal/kWh

3.3.3 The Petitioner further requested the Commission to consider the normative SHR of 2645.39 kcal/kWh for both the units while approving the fuel cost and allow the SHR as claimed in the true-up petition.

3.4 **Depreciation**

Stakeholder's Comments/suggestions:

3.4.1 The Stakeholder submitted that the depreciation of Giral Unit 1 for FY 2011-12 to FY 2013-14 and Unit 2 for FY 2010-11 to FY 201314 may be allowed on the GFA approved by the Commission in its order dated

07.12.2016.

GLPL's Response

3.4.2 The Petitioner requested the Commission to allow the depreciation for both the units as claimed in the petition after considering additional capitalization.

3.5 Interest on term loan and Finance Charges

Stakeholder's Comments/Suggestions:

3.5.1 The Stakeholder submitted that the interest on term loan and finance charges for Giral Unit 1 for FY 2011-12 to FY 2013-14 and Unit 2 for FY 2010-11 to FY 2013-14 may be allowed on the basis of Commission's order dated 07.12.2016.

GLPL's Response

3.5.2 The Petitioner submitted that the interest on term Loan and Finance charges has been claimed as per RERC Tariff Regulations, 2009.

3.6 Interest on working capital

Stakeholder's Comments/Suggestions:

3.6.1 The Stakeholder submitted that the interest on working capital for Giral Unit 1 for FY 2011-12 to FY 2013-14 and Unit 2 for FY 2010-11 to FY 2013-14 may be allowed by the Commission on normative basis.

GLPL's Response

3.6.2 The Petitioner submitted that the interest on Working Capital has been claimed as per RERC Tariff Regulations, 2009.

3.7 O&M Expenses

Stakeholder's Comments/suggestions:

3.7.1 Stakeholder submitted that the annual audited accounts provided by the

Petitioner along with the Petition do not indicate the O&M expenses of GLPL separately for Unit 1 and Unit 2. Therefore, it is difficult to comment that the actual O&M expenses claimed in the Petition are audited or not.

- 3.7.2 Stakeholder further submitted that the O&M expenses claimed in the Petition in Table 8 is not correct as the same also includes the insurance charges and ARR Petition fees which is not correct, the same is indicated in Annexure- A Submitted at Page no. 111 of the Petition. Therefore, the correct O&M expenses works out to be Rs. 7.59 Crore, Rs.15.60 Crore and Rs. 20.05 Crore for FY 2011-12, FY 2012-13 and FY 2013-14 respectively for unit-1 and the same may be considered by the Commission for true-up.

GLPL's Response

- 3.7.3 Regarding O&M Expenses the Petitioner submitted that the annual accounts of Giral Unit 1 are totally separate and are submitted with the main petition on page no. 503-616.
- 3.7.4 The Petitioner further submitted that the figures of O&M at Table No. 8 are correct and excluding insurance charges and tariff fees and calculations are provided in the main petition at page no. 111. The Petitioner further requested the Commission to consider the same.

3.8 Special O&M Expenses

Stakeholder's Comments/suggestions:

- 3.8.1 The Stakeholder submitted that the Petitioner has not been able to submit the supporting documents to substantiate the special O&M expenses other than electricity charges; therefore, the Commission had allowed the electricity charge. The Stakeholder further submitted that the Petitioner with this true-up Petition has not submitted the supporting documents even for electricity charges. Therefore, the Petitioner should provide the supporting documents for electricity charges paid.

GLPL's Response

- 3.8.2 Regarding Special O&M Expenses the Petitioner has submitted the copy of the certain documents.
- 3.8.3 Apart from the above, Petitioner vide its submission dated 5.12.2017 submitted that there are four pumping stations for M/s GLPL, Barmer which are installed for water supply from Mohangarh to Giral. GLPL, considered energy Consumption of these pumping station along with transmission losses in the plant auxiliary and subtracted from the total generation of plant (while billing to the Discoms) as per the meeting held on dated 08.05.2009 between GLPL and MD Jodhpur Discom. Since, then GLPL was adjusting energy consumption of these pumping stations from the gross energy sent out to Discoms (Giral Unit # 1), in other words the JDVVNL was not billing the GLPL for the energy consumption by these pumping stations of GLPL as the GLPL was adjusting the energy consumption of these four pumping station from the bill sent to Discoms (Giral Unit # 1).
- 3.8.4 Petitioner further submitted that Jodhpur Discom raised this issue in coordination committee held on 01.09.2017 and raised the demand at the rate of LIP (Large Industrial Power) rate of Discoms from GLPL instead of adjustment of electricity consumption GLPL tariff. In coordination committee it was decided that the matter may be decided by Principal Secretary, Energy. The matter was examined by the Hon'ble Principal Secretary Energy and decided as below.
- a. For the pumping stations situated more than 50 Km away from the canal, GLPL could have claimed actual expenses on electricity as per the LIP / applicable tariff. This was not done because of the understanding reached in the meeting held on 08.05.2009. Therefore, for these two pumps, energy will be billed at the

generation tariff of GLPL by Jodhpur Discom after taking into account transmission losses.

- b. Expenses on electricity charges for the two pumping stations within 50 Kms of the canal have been allowed to GLPL as per regulations. GLPL should, therefore, pay to Jodhpur Discom at the applicable tariff (LIP) for these two connections.
- c. GLPL has billed only the net energy after subtracting the energy consumed at these four pumping stations and the transmission / distribution losses. It may bill the gross energy sent out to the three Discoms.
- d. From the year 2017-18 onwards, billing may be done by Jodhpur Discom as per the Regulations, i.e. the applicable tariff (LIP). GLPL can claim additional expenses over and above the O&M expenses allowed for the two pumping stations situated beyond 50 Kms from canal.

3.8.5 The Petitioner submitted that the aforesaid order of Principal Secretary, Energy, Government of Rajasthan shall have following implication.

- a. Impact on Revenue and Expenditure.
- b. GLPL has to revise its net energy sent out of the GLPL Unit # 1 as earlier the energy consumption of these four pumping stations were added to the Auxiliary power consumption of GLPL Unit # 1. Now it is to be removed from the plant auxiliary power consumption and have to be added back to the sent out generation of GLPL unit # 1 i.e. the sent out energy to Discoms shall increase. Further, the O&M expense of GLPL unit 1 & 2 shall increase, which shall have impact on sharing of O & M Expenses. (From the COD of the power plant to FY 2013-14).

3.8.6 Accordingly, the net sent out energy will change as given in the table below:

Table 2: Revised parameters of GLPL Unit # 1 for FY 2011-12 to FY 2013-14

Particulars	FY 2011-12	FY 2012-13	FY 2013-14
Generation (MU)	91.70	261.98	175.25
Auxiliary power consumption (MU) (A)	23.09	62.40	53.53
Auxiliary power consumption as submitted (%)	25.18%	23.82%	30.55%
Sent out (MU)	68.61	199.58	121.72
Sent out PLF (%)	15.57%	20.60%	12.56%
Auxiliary power consumption for pumping station from 18.10.2011 to 31.3.2014 (MU) B	2.01	3.77	4.43
Auxiliary power consumption of plant (A-B) (MU)	21.08	58.63	49.10
Auxiliary power consumption of plant (%)	22.98%	22.38%	28.02%
Net sent out (MU)	70.62	203.35	126.15
Net sent out PLF (%)	16.02%	20.98%	13.02%

3.8.7 Further, the aforesaid change in sent out energy, shall have impact of the following:

- a. Shall increase the revenue of GLPL (from COD of Power plant to FY 2013-14).
- b. Shall increase the PLF of power plant which shall increase recovery of the fixed charges of GLPL unit # 1 (from COD of Power plant to FY 2013-14).
- c. The Petitioner submitted that the increase in revenue and the increase in O&M expenses shall be booked as prior period item in the current year FY 2017-18, the true – up of the same shall be filed after finalization of audit of FY 2017-18. Therefore, the implication of the aforesaid order will only be on the recovery of fixed charges by way of increase in PLF (%) on the current true – up of FY 2011-12 to FY 2013-14 of Unit 1.

3.9 **Insurance Charges**

Stakeholder's Comments/suggestions:

3.9.1 The Stakeholder submitted that the Petitioner should provide the supporting documents regarding the payment of insurance charges as the annual Audited Accounts provided by the petition do not indicate the insurance charges separately for Unit 1 and Unit 2. Therefore, in the absence of such supporting documents, the claim of insurance charges is not admissible.

GLPL's Response

3.9.2 The Petitioner submitted that the insurance charges are claimed on actuals. The Petitioner further provided the copies of documents in support of the same.

3.10 **Prior period expenses**

Stakeholder's Comments/suggestions:

3.10.1 The Stakeholder submitted that the Petitioner should provide the justification of prior period expenses for Giral Unit 1 & 2, if any, as the present true-up petition has been filed from the COD to FY 2013-14.

GLPL's Response

3.10.2 The Petitioner has submitted that the prior period expenses are claimed on the basis of actual audited accounts. The Petitioner further requested the Commission to consider the same as claimed in the petition.

3.11 **Non-Tariff Income**

Stakeholder's Comments/suggestions:

3.11.1 The Stakeholder submitted that the non-tariff income for Giral Unit 1 & 2 may be accepted same as submitted by the Petitioner.

GLPL's Response

3.11.2 The Petitioner requested the Commission to consider the same as filed in the petition.

3.12 Variable Charges

Stakeholder's Comments/suggestions:

3.12.1 The Stakeholder submitted that the Petitioner should provide the supporting documents related to the fuel cost, analysis report of actual GCV and moisture content for Unit 1 & 2 both.

GLPL's Response

3.12.2 The Petitioner in response submitted that the GCV and Moisture analysis report, bills for fuel cost (Lignite, Lime and LDO) are enclosed within the petition as Annexure F.

B. ARR and Tariff for FY 2017-18 for Unit 1 & 2

3.13 Shutdown of Unit 1 & 2

Stakeholder's Comments/suggestions:

3.13.1 The Stakeholder submitted that the Petitioner vide its letter No. GLPL/MD/BMR/D.17 dated 24.07.2016 informed that the Unit 1 is under shutdown from 11.07.2014 to till date and Unit 2 is under shutdown from 27.01.2016 to till date. Therefore, the Petitioner may inform if any of these units are still under shutdown and if not, then from the date of restart date to till date, the Petitioner may provide the data of gross generation, PLF, Auxiliary consumption, Net generation etc., and also the date of restart.

3.13.2 The Stakeholder further submitted that if these units are under total shutdown till date, then the expected date to start generation may also be intimated.

3.13.3 The Stakeholder submitted that the Petitioner should give the justification for approaching to the Commission for allowing the provisional tariff w.e.f

01.04.2017 for FY 2017-18, when these units are not likely to start generation. The Stakeholder further submitted that the Petitioner should also provide the justification for seeking the determination of ARR and Tariff for FY 2017-18, when these units are not likely to operate again.

3.13.4 The Stakeholder submitted that in Table 1 of the Petition, the Petitioner has shown the gross generation, PLF and ex-bus energy sale from Giral Unit 1 & 2. Regarding this, the Petitioner should submit as to whether these parameters will continue in FY 2017-18 and if it is not possible, then the Petitioner should provide the factual position, so that the Discoms may not be mis-guided.

GLPL's Response

3.13.5 The Petitioner in response submitted that the Giral Unit 1 and 2 are under shutdown from 11.7.2014 and 27.1.2016 respectively till now.

3.13.6 The Petitioner further submitted that it is in the process of disinvestment of the generating station and for the purpose of disinvestment tariff is required. Therefore the Petitioner has requested the Commission to provide provisional Tariff for FY 2017-18 with effect from 1.4.2017 till the issuance of final Tariff Order.

3.14 Additional Capitalisation

Stakeholder's Comments/suggestions:

3.14.1 The Stakeholder submitted that the Commission vide its order dated 07.12.2016 approved the final capital cost of Giral Unit 1 & 2 and the same cannot be revised now.

3.14.2 The Stakeholder submitted that regarding the additional capitalization of FY 2014-15 in respect of Unit 1 & 2 towards computer and office equipment, the Commission has already decided in its order dated 17.10.2016, that the said expenditure is not related to capital cost and are related to O&M. Therefore, the above additional capitalisation is not admissible.

3.14.3 The Stakeholder further submitted, that the additional capitalisation other than the computer and office equipment for Giral Unit 1 & 2 for FY 2014-15 is not admissible as no additional capitalisation is allowable after cut-off date as per Regulation 17 of Tariff Regulations and the cut-off date of Giral Unit 1 & 2 is already expired. Therefore, no additional capitalisation is admissible for Giral Unit 1 & 2.

GLPL's Response

3.14.4 The Petitioner in response submitted that the Commission in Order dated 7.12.2016 had considered only deductions in Capital Cost and mentioned that the additions shall be considered at the time of True-up for that year. Moreover, the Petitioner has submitted that these additional capitalizations are the deferred payments for the works within the original scope and Commissioned on the date of COD. Therefore the Petitioner requested the Commission to consider the additions for determination of ARR.

3.14.5 Regarding additional capitalization towards computer and office equipments the Petitioner has submitted that these assets are fixed assets in nature and are required for smooth functioning of the plant and therefore the Petitioner requested the commission to consider the these additions in the Capital cost.

3.14.6 Further with regards to admissibility of these additions the Petitioner has submitted that Giral unit 1 and 2 has achieved COD during 2009-14 period and there was no provision for cut-off date as per Regulation 19 of the RERC Tariff regulations, 2009.

3.15 Depreciation

Stakeholder's Comments/suggestions:

3.15.1 The Stakeholder submitted, that the depreciation for Giral Unit 1 & 2 for FY 2017-18 may be allowed only on the closing GFA as per order dated 07.12.2016, adopting the same approach as was adopted in the order dated 07.12.2016.

GLPL's Response

3.15.2 The Petitioner has requested the Commission to consider the computation of petition as claimed in the petition on normative basis.

3.16 O&M expenses

Stakeholder's Comments/suggestions:

3.16.1 The O&M expenses for Giral Unit 1 & 2 for FY 2017-18 may be allowed on normative basis.

GLPL's Response

3.16.2 As regards to O&M Expenses the Petitioner has submitted that the O&M Expenses claimed in the petition are on normative basis.

3.17 Special O&M expenses

Stakeholder's Comments/suggestions:

3.17.1 The Stakeholder submitted that only electricity charges may be allowed under special O&M based on the expenses incurred in FY 2016-17 and the Petitioner should provide the supporting documents to substantiate the actual expenses incurred in FY 2016-17. Special O&M expenses other than electricity charges may not be allowed in accordance with the approach adopted by the Commission in its order dated 07.12.2016.

GLPL's Response

3.17.2 As regards to Special O&M Expenses the Petitioner has submitted the details of Special O&M Expenses as shown under:

Particular	FY 2017-18 Estimated
Details of water pumping stations beyond 50 Kms from water intake point	
Pumping station	
Expenses for man power engaged for operation and maintenance of pumping stations	0.45

Expenses for maintenance of Raw water pipe line	0.08
Expenses for spare and lubrication for R&M of pumping stations	0.06
Expenses for electricity consumption of pumping stations (Rs.)	0.39
Total special O&M Expenses	0.98

3.18 **Interest and finance charges**

Stakeholder's Comments/suggestions:

3.18.1 The Stakeholder submitted the interest on term loan may be allowed by adopting the same approach as was adopted by the Commission in its order dated 07.12.2016.

GLPL's Response

3.18.2 As regards to Interest and finance charges the Petitioner has submitted that the Interest and finance charges claimed in the petition are on normative basis.

3.19 **Interest on working capital**

Stakeholder's Comments/suggestions:

3.19.1 The Stakeholder submitted that the interest on working capital for Giral Unit 1 & 2 for FY 2017-18 may be allowed on normative basis.

GLPL's Response

3.19.2 As regards to Interest on working capital the Petitioner has submitted that the Interest on working capital claimed in the petition are on normative basis.

3.20 **Insurance Charges**

Stakeholder's Comments/suggestions:

3.20.1 The Stakeholder submitted that the insurance charges for Giral Unit 1 & 2 for FY 2017-18 may be allowed on the basis of actual insurance expenses incurred in FY 2016-17 and the Petitioner should provide the supporting

documents for the same.

GLPL's Response

3.20.2 The Petitioner in response submitted that the amount paid for insurance during 2016-17 is Rs. 1.15 cr. Further the relevant documents related to actual insurance paid is attached as Annexure – B.

3.21 Return on Equity

Stakeholder's Comments/suggestions:

3.21.1 The Stakeholder submitted that though the RoE for Giral Unit 1 & 2 for FY 2017-18 may be allowed as per the norms prescribed in the Regulations but it is to be considered whether such claim is valid in the case when the Units are not in operation.

GLPL's Response

3.21.2 As regards to RoE the Petitioner has submitted that RoE is computed as per Regulation 20 of the RERC Tariff Regulation 2014 and there is no such provision in the Regulation regarding sustainability of RoE while units are not in operation.

3.22 Non-Tariff income

Stakeholder's Comments/suggestions:

3.22.1 The Stakeholder submitted the non-tariff income for Giral Unit 1 & 2 for FY 2017-18 may be considered as submitted by the Petitioner.

GLPL's Response

3.22.2 The Petitioner requested the Commission to consider the Non-tariff Income same as per the petition.

3.23 Variable Cost

Stakeholder's Comments/suggestions:

3.23.1 The Stakeholder submitted that the SHR and all other matters related to variable charges may be taken as approved by the Commission in its

order dated 07.12.2016.

GLPL's Response

3.23.2 The Petitioner requested the Commission to consider the variable charges same as per the petition.

3.24 **Others**

Stakeholder's Comments/suggestions:

3.24.1 The Stakeholder submitted that the Petitioner at page 52 of the Petition under "Emphasis on matter" has mentioned that "The Company has recognised the regulatory assets separately in the books of accounts on the basis of RERC order at Rs. 30.17 Core for Unit 1 and Rs. 106.16 Crore for Unit 2 being expenditure incurred in the years now allowed to be capitalised and recovery of cash to be made through revised tariff as allowed by the regulatory authority." Regarding this the Petitioner should provide the date of the Commission's order along with the paragraph reference where such decision has been taken by the Commission. The Stakeholder further submitted that the above mentioned may be disallowed as no such decision has been taken by the Commission as known to the Stakeholder.

3.24.2 The Stakeholder further submitted that under "Emphasis on matter", it has been mentioned "*As per information and explanation given to us, the company had been selected for disinvestment and disinvestment process has been under consideration but no final approval has been received from the Government of Rajasthan.*" Regarding this, the Petitioner should intimate the present status of disinvestment process and also clarify if this disinvestment is the reason that units are put on shutdown and if these units are not intended to put in operation in the near future.

3.24.3 The Stakeholder submitted that the Petitioner may clarify the rationale behind making Giral Lignite Power Limited a subsidiary company of RVUN.

- 3.24.4 The Stakeholder submitted that the Petitioner may clarify the reasons for increase in PLF from 6.79% in FY 2016-17 to 80.00% for FY 2017-18.
- 3.24.5 The Stakeholder submitted that the Petitioner should clarify whether the problem of high Sulphur content in lignite has been resolved or not.
- 3.24.6 The Stakeholder submitted that the Petitioner may intimate other operational problems which require remedies for smooth working of the plants.
- 3.24.7 The Stakeholder submitted that the Petitioner may clarify if there is any plan to sell this plant in near future along with the reasons.
- 3.24.8 The Stakeholder submitted that the Petitioner should arrange for a public presentation to understand the subject matter in proper manner to submit proposal comments/ Suggestions.

GLPL's Response

- 3.24.9 The Petitioner in response submitted that these are the Cost approved by the Commission while approving final capital cost of Unit 1 and 2 vide order dated 12.8.2015 in which the expenditure of pre-operation were booked in P&L and was claimed to be capitalized. The Petitioner further submitted that the Commission has considered general Industrial practice and is of the view that pre-operative expenses / overheads should be limited to maximum of 5% of the hard cost of Unit 1 & 2. The Commission accordingly approved pre-operative expenses.
- 3.24.10 As regards the disinvestment process the Petitioner has submitted that the disinvestment is in process. Further, the lignite being supplied has higher Sulphur content in the range of 5-6% which is hampering the plant operation and leading to reduced PLF therefore GLPL is in process of disinvestment which has been approved by the Government of Rajasthan.
- 3.24.11 As regards the rationale behind making Giral a subsidiary company of RVUN the Petitioner has submitted that Giral Lignite Power Limited a subsidiary company of RVUN was formed for better management of the

Plant.

3.24.12 As regards to increase in PLF the Petitioner has submitted that in FY 2016-17 plant run was expected as for one month accordingly, generation was calculated and PLF was calculated over a year due to that PLF was 6.79% whereas in FY 2017-18 normative generation has been considered for complete year.

3.24.13 As regards the fuel quality problem the Petitioner has submitted that the fuel quality problem (high Sulphur lignite) is yet to be resolved.

3.24.14 The Petitioner in response to other operational problems submitted that he has carried out additional work in order to have smooth working of the plant which has been deteriorated due to high Sulphur content in the Lignite.

SECTION 4

Analysis of True up of GLPL Units 1 for the period from FY 2011-12 (166 days) to FY 2013-14 and for Unit 2 for the period from FY 2010-11 (20 days) to FY 2013-14.

Norms of Operation

Availability

GLPL's Submissions

- 4.1 The Petitioner has submitted the details of actual Availability as per the audited accounts by GLPL Units 1 & 2 for FY 2010-11 to FY 2013-14 as shown in the table below:

Table 3: Availability as submitted by GLPL

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Target Availability as approved	70.00%	70.00%	70.14%	71.13%	72.64%	73.63%	75.14%
As per Petition	90.23%	36.67%	48.85%	51.85%	37.95%	32.09%	37.45%

Commission's Analysis

- 4.2 The Commission observed that except for the year FY 2010-11, the availability of both the units have been considerably lower than the target availability approved by the Commission. The Petitioner in its petition has not submitted justification for such reduced availability for both the units. Further, the PLF for all the years is substantially lower than the availability. The Commission directed the Petitioner to submit the SLDC certificates in support of the availability claimed by the Petitioner. The Petitioner has not been able to submit the SLDC certificate showing the loss in generation due to SLDC instructions. In the absence of SLDC Certificate, it could not be established

that the loss in generation is due to uncontrollable factors. Hence, the Commission has approved availability equivalent to the PLF achieved by the Petitioner as shown in the table below for carrying out truing up of both the units.

Table 4: Availability approved by the Commission from FY 2010-11 to FY 2013-14

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Actual as per petition	90.23%	36.67%	48.85%	51.85%	37.95%	32.09%	37.45%
Approved after True up	60.26%	16.02%	24.17%	20.98%	17.19%	13.02%	16.64%

4.3 The Commission for the purpose of recovery of fixed charges has considered the normative availability as specified in the RERC Tariff Regulations, 2009.

Plant Load Factor (PLF)

GLPL's Submission

4.4 The Petitioner has submitted the details of actual PLF as per the audited accounts by GLPL Units 1 & 2 for FY 2010-11 to FY 2013-14 as shown in the table below:

Table 5: PLF as submitted by GLPL

Particulars	FY 2010-11 (Unit -2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in the Tariff order	70.00%	70.00%	70.14%	71.13%	72.64%	73.63%	75.14%
As per Petition	61.76%	18.41%	26.54%	23.93%	19.18%	16.01%	18.53%

4.5 The Petitioner has submitted that the GLPL Unit-1 achieved a Plant Load Factor of 18.41%, 23.93% and 16.01%, for FY 2011-12 (166 Days), FY 2012-13 and FY 2013-14 respectively which is much lower than target PLF value 70%, 71.13%, and 73.63% respectively. Further, the GLPL Unit-2 achieved a Plant Load Factor of 61.76%, 26.54%, 19.18% and 18.53%, for FY 2010-11(20 Days), FY 2011-12, FY 2012-13 and FY 2013-14 respectively and is much lower than target PLF value 70%, 70.14%, 72.64%, and 75.14% respectively. The Petitioner in justification to the lower PLF submitted that the lignite received was having high sulphur content and therefore to neutralise this high sulphur content large quantity of lime is added due to which back pass of the boiler is getting frequently choked.

Commission’s Analysis

4.6 The Commission has gone through the submissions of the Petitioner and directed the Petitioner to submit the actual gross generation, auxiliary consumption and net generation for both the units along with actual month wise electricity consumption of various pumping stations. The Petitioner in reply submitted the generation data as shown below:

Table 6: Generation data of Giral Unit #1

Particulars	FY 2011-12 (166 days)	FY 2012-13	FY 2013-14
Generation (MU)	91.70	261.98	175.25
Auxiliary Power Consumption of plant excluding Pumping Station (MU)	21.08	58.63	49.10
Auxiliary Power Consumption (%)	22.98	22.38	28.02
Net Sent Out (MU)	70.62	203.35	126.16

Table 7: Generation data of Giral Unit #2

Particulars	FY 2010-11 (20 days)	FY 2011-12	FY 2012-13	FY 2013-14
Generation (MU)	37.05	291.41	209.98	202.94
Auxiliary Power Consumption of plant excluding Pumping Station (MU)	5.06	56.53	43.35	41.66
Auxiliary Power Consumption (%)	13.64	19.40	20.64	20.53
Net Sent Out (MU)	32.00	234.88	166.63	161.28

- 4.7 The Petitioner further submitted the actual electricity consumption of its pumping station which is same as that submitted earlier. However, the net sent out PLF for Unit 1 has undergone change as the consumption of pumping stations was supplied by Unit 1 which has now been corrected.
- 4.8 With regard to the increase in revenue and the increase in O&M expenses, it is observed that the Petitioner has not submitted any computations for the same and has not sought the amount in this true up. The Petitioner further submitted that the same shall be booked as prior period item in the current year FY 2017-18. The Commission has therefore not considered the increase in revenue and special O&M expenses and the same will be examined at the time of truing up of ARR and tariff for FY 2017-18.
- 4.9 With regards to high sulphur content leading to lower PLF, the Commission observes that it has stated that higher limestone consumption was causing frequent choking of back pass of the boiler ,however, it is observed that though the sulphur percentage has been in the range of 4-7%, the specific lime consumption for both the units are in the range of 0.002 kg/kWh to 0.13 kg/kWh which cannot be considered as very high given that such consumption roughly translates to less than 3% of sulphur content considering the formula specified in the RERC Tariff Regulations, 2009. Furthermore, arrangement of quality fuel is the responsibility of the generator and therefore

any adverse impact on account of fuel cannot be passed on to the beneficiary.

4.10 The Commission, has recomputed the deemed PLF in accordance with Regulation 45 of the RERC Tariff Regulations, 2014. The Commission for the purpose of computing the deemed PLF has considered the normative auxiliary consumption.

4.11 The Commission in view of the above has approved the PLF for Unit 1 and 2 as shown in the table below.

Table 8: PLF as Approved by the Commission for the period FY 2010-11 and FY 2013-14

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Actual as per Petition	61.76%	18.41%	26.54%	23.93%	19.18%	16.01%	18.53%
Deemed PLF for recovery of Fixed Charges	60.26%	16.02%	24.17%	20.98%	17.19%	13.02%	16.64%

Auxiliary Consumption

GLPL's Submissions

4.12 The actual auxiliary consumption submitted by GLPL for Unit-1 and 2 for the period from FY 2010-11 and FY 2013-14, auxiliary consumption as per norms and revised auxiliary consumption claimed is as shown in the table below:

Table 9: Auxiliary Consumption as submitted by GLPL

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in Tariff Order	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%

Actual as per Petition	13.64%	25.18%	19.40%	23.82%	20.64%	30.55%	20.53%
Revised Claimed	13.64%	22.98%	19.40%	22.38%	20.64%	28.02%	20.53%

Commission's Analysis

4.13 The Commission has gone through the submissions of the Petitioner. It is observed that the Petitioner has not submitted any justification in support of higher auxiliary consumption submitted by it. The Commission has approved the auxiliary consumption as specified under RERC Tariff Regulations, 2009 and is as shown in the table below:

Table 10: Auxiliary Consumption approved for the period from FY 2010-11 to FY 2013-14 (%)

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 1	Unit 2	Unit 1
As per Petition	13.64%	25.18%	19.40%	23.82%	20.64%	30.55%	20.53%
Revised Claimed	13.64%	22.98	19.40%	22.38%	20.64%	28.02	20.53%
Approved after True Up	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%

4.14 Further, as Auxiliary consumption is a controllable performance parameter, the Commission has computed the sharing of gains/losses vis-à-vis revised claimed in accordance with Regulation 10 of RERC Tariff Regulations, 2009.

Station Heat Rate

GLPL's Submission

4.15 The actual station heat rate submitted by GLPL for its units 1 & 2 for FY 2010-11 to FY 2013-14 is as shown in the Table below:

Table 11: Actual Station Heat Rate as submitted by GLPL (kcal/kWh)

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit - 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in Tariff Order	2449.50	2449.50	2449.50	2449.50	2449.50	2449.50	2449.50
As per Petition	3880.07	3621.71	3601.55	3795.14	3765.68	3809.87	4197.07

4.16 The Petitioner submitted that the Gross Station Heat Rate has been computed in accordance with the Regulation 46(4)(a) of the RERC Tariff Regulations, 2009 which is reproduced as below:

*“Gross Station Heat Rate – For new Generating stations,
(a) Coal and lignite based thermal power generating stations
= 1.065 X Design Heat Rate (kCal/kWh)*

Where the Design Heat Rate of a unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.

Provided that the Design Heat Rate shall not exceed the limit as specified under Regulation 26(ii)(B)(a) of CERC (Terms and Conditions of Tariff) Regulations, 2009 including amendments thereof shall be applicable.(Appendix-2)”

4.17 Accordingly Gross Station Heat Rate has been computed as follows:-

= 1.065 X Design Heat Rate (kCal/kWh)
= 1.065 X 2483.94(Heat rate guaranteed by the supplier, for which certificate of supplier are enclosed)
= 2645.40 kCal/kWh”

4.18 However, the Petitioner has claimed variable charges on the basis of actual station heat rate achieved by the units during FY 2010-11 to FY 2013-14.

Commission’s Analysis

4.19 The Commission has gone through the submission of the Petitioner. It is observed that the Design Heat Rate as submitted by the Petitioner is higher than the Design Heat Rate ceiling limit of 2300 kCal/kWh as per Regulation 46(4)(a) of the RERC Tariff Regulations, 2009. The Commission in this regard has already approved Station Heat Rate of 2449.50 kCal/kWh in its order dated 12.08.2015. Therefore, Commission has accordingly calculated the Station Heat Rate as per the RERC Tariff Regulations, 2009. The Computation of SHR is as shown in the Table below:

Table 12: Calculation of SHR for GLPL Units 1&2

Particulars	Unit	GLPL Petition	Approved
Guaranteed Turbine Cycle Heat Rate	kCal/kWh	1994.60	1994.60
Guaranteed Boiler Efficiency	%	80.30%	80.30%
Design Heat Rate (A)	kCal/kWh	2483.94	2483.94
Ceiling limit of Design Heat Rate (B)	kCal/kWh	-	2300
Allowable Design Heat Rate (DHR)- Minimum of A and B above	kCal/kWh	2483.94	2300
SHR (1.065* DHR)	kCal/kWh	2645.40	2449.50

4.20 The Station Heat Rate approved by the Commission for the period from FY 2010-11 to FY 2013-14 is as shown in the Table below:

Table 13: Station Heat Rate Approved for FY 2010-11 to FY 2013-14 (kCal/kWh)

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As per Petition	3880.07	3621.71	3601.55	3795.14	3765.68	3809.87	4197.07
Approved	2449.50	2449.50	2449.50	2449.50	2449.50	2449.50	2449.50

4.21 Further, as SHR is a controllable performance parameter, the Commission has computed the sharing of gains/losses in accordance with Regulation 10 of RERC Tariff Regulations, 2009.

Secondary Fuel Oil Consumption
GLPL's Submission

4.22 The actual SFOC submitted by GLPL for its Stations is as shown in Table below:

Table 14: Fuel Oil Consumption as submitted by GLPL (ml/kWh)

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit - 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in the Tariff order	3.00	3.00	3.00	3.00	3.00	3.00	3.00
As per petition	0.70	2.04	1.81	1.57	2.82	2.09	2.06

Commission's Analysis

4.23 The Commission has allowed SFOC for this generating station for FY 2010-11 to FY 2013-14 in accordance with the norms specified in RERC Tariff Regulations, 2009. The SFOC approved by the Commission is as shown in the Table below.

Table 15: Secondary Fuel Oil Consumption as approved for FY 2010-11 to FY 2013-14 (ml/kWh)

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit - 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	SFOC	Unit 1	Unit 2	Unit 1
As per petition	0.70	2.04	1.81	1.57	2.82	2.09	2.06
Approved after True Up	3.00	3.00	3.00	3.00	3.00	3.00	3.00

4.24 Further, as SFOC is a controllable performance parameter, the Commission

has computed the sharing of gains/losses in accordance with Regulation 10 of RERC Tariff Regulations, 2009.

Fuel Price and Calorific Value

GLPL's Submission

4.25 GLPL submitted the actual prices and GCV of fuel in the petition. The Commission directed the Petitioner to submit the month wise actual GCV, landed price of primary and secondary fuel, landed price of limestone, moisture content and sulphur content of lignite. The Petitioner in response submitted the same however, the Petitioner in its response has revised the GCV and price of fuel and limestone. The Commission has considered the actual GCV of fuel and landed price of the fuel and limestone as submitted by the Petitioner in its reply to data gaps. The Fuel price and calorific Values of the fuels along with price of limestone as claimed by the Petitioner and approved by the Commission is as shown in the table below:

Table 16:Landed Price and GCV of Fuel approved by the Commission for Unit -1 from FY 2011-12 to FY 2013-14

Particulars	Units	FY 2011-12		FY 2012-13		FY 2013-14	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Calorific Value							
Fuel 1(LDO)	kCal/ltr	10600.00	10600.00	10600.00	10600.00	10600.00	10600.00
Fuel 2(Lignite COAL)	kCal/kg	2859.00	2859.00	3019.00	3019.00	2774.00	2774.00
Fuel 3 (LIME)	kCal/kg	0.00	0.00	0.00	0.00	0.00	0.00
Landed Fuel Price per unit							
Fuel 1(LDO)	Rs./KL	59075.00	59075.00	63146.00	63146.00	67310.00	67310.00
Fuel 2(Lignite COAL)	Rs./MT	780.00	781.17	823.75	824.99	896.15	897.50
Fuel 3 (LIME)	Rs./MT	602.00	602.00	583.00	583.00	581.95	581.95

Table 17: Landed Price and GCV of Fuel approved by the Commission for Unit -2 from FY 2010-11 to FY 2013-14

Particulars	Units	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
		Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Calorific Value									
Fuel 1 (LDO)	kCal/ltr	10600.0	10600.00	10600.0	10600.00	10600.0	10600.00	10600.0	10600.00
Fuel 2 (Lignite)	kCal/ltr	3212.00	3212.00	3040.00	3040.00	2991.00	2991.00	3021.00	3021.00
Fuel 3 (LIME)	kCal/ltr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landed Fuel Price per unit									
Fuel 1 (LDO)	Rs./KL	47168.0	47168.00	57230.0	57230.00	63256.0	63256.00	65305.0	65305.00
Fuel 2 (Lignite)	Rs./MT	762.00	763.14	779.40	780.57	830.00	831.25	887.00	888.33
Fuel 3 (LIME)	Rs./MT	577.00	577.00	592.00	592.00	582.00	582.00	582.00	582.00

Other Charges and adjustments

GLPL's Submission

4.26 In addition to fuel cost, GLPL has claimed other charges under the heads of fuel related cost, cost of water Lubrication and Consumables stores, station supplies and other operating expenses. The Other charges claimed by the Petitioner for FY 2010-11 to FY 2013-14 are as shown in the Table below:

Table 18: Other charges claimed by the Petitioner for Unit 1 (Rs. Crore)

Other variable Costs	FY 2011-12	FY 2012-13	FY 2013-14
Fuel Related Costs	0.00	0.00	0.00
Cost of Water	0.07	0.13	0.11
Lubrication and Consumable Store	0.09	0.14	0.30
Station Supplies	0.00	0.00	0.00
Other Costs	0.34	1.20	1.57
Total	0.49	1.47	1.97

Table 19: Other charges claimed by the Petitioner for Unit 2 (Rs. Crore)

Other variable Costs	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Fuel Related Costs	0.00	0.00	0.00	0.00
Cost of Water	0.15	0.15	0.13	0.11
Lubrication and Consumable Store	0.33	0.22	0.14	0.30
Station Supplies	0.00	0.00	0.00	0.00
Other Costs	0.37	0.89	0.20	0.36
Total	0.86	1.25	0.47	0.76

Commission's Analysis

4.27 The Commission is of the view that the cost related to arrangement of fuel can only be considered as part of fuel cost to work out the variable charges. However, as regards to other operating expenses, the Commission is of the view that such expenses cannot be treated as part of fuel cost to arrive at the variable charge and are to be treated as part of O&M expenses. Therefore, the Commission has considered the other operating expenses as a part of O&M expenses in accordance with the approach adopted by the Commission in previous years.

Annual Fixed Charges

4.28 The Annual Fixed Charges comprise of the following elements:

- (i) Operation and Maintenance (O&M) expenses
- (ii) Depreciation
- (iii) Interest and Finance Charges on Term Loans
- (iv) Interest on Transitional Loans
- (v) Interest on Working Capital
- (vi) Inter-Unit Account balance written off
- (vii) Addl. Contribution towards Pension and Gratuity
- (viii) Prior Period Expenses/Income

- (ix) Return on Equity
- (x) Insurance Charges
- (xi) Less: Non-Tariff Income

4.29 Each of these elements has been dealt with in the following paragraphs.

Operation and Maintenance (O&M) expenses

GLPL's Submission

4.30 The Petitioner has claimed O&M Expenses as per the actual / audited accounts. The expenses claimed by the Petitioner and the Normative O&M expenses as per Regulation 48 of RERC Tariff Regulation 2009, are summarised in the table below:

Table 20: O&M expenses as claimed by the Petitioner (Rs. Crore)

Particulars	FY 2010-11 (Unit 2 for 20 days)		FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
O & M Expenses								
As per petition	0.00	0.85	6.91	11.88	15.19	15.62	19.33	15.97
Normative O&M Expenses	0.00	1.16	10.14	22.35	23.63	23.63	24.98	24.98

4.31 The Petitioner has submitted that as per Regulation 48 of RERC Tariff Regulations 2009, in case the process water is required to be transported over a distance of more than 50 km then appropriate special O&M expenses, subject to the prudence check by the Commission, shall be allowed in addition to the above O&M expenses. It shall include O&M expenses related to pipe line beyond 50 km and water pumping station operation cost and additional power consumption for such pumping stations.

4.32 The Petitioner further submitted that the generating station is bringing process water from Indira Gandhi Nahar Pariyojana Mohangarh Jaisalmer located at 170 Km from the generating station and there are 4 pumping stations for

pumping water from mohangarh to Giral. The operation and maintenance of the complete pipeline, and pumping stations is carried out by the staff of Giral power station and single contract man power. Thus, the expenditure is not accounted separately for 50 km and 120 km. The expenditure is worked out on pro-rata basis i.e., per km basis and is claimed for 120 km out of 170 km.

4.33 The Petitioner has submitted that the electricity consumption charges of Mohangarh pumping station is not claimed as it is near the canal. The electricity consumption charges for Kanod pumping station are divided in the ratio of 10:25 as this pumping station pumps water for 35 km out of which 10 km falls under the range of first 50 km and rest 25 km is beyond the 50-km range. Further, the electricity consumption charges of Aakal and Devikot have been claimed in full.

4.34 Expenses other than electricity charges have been calculated considering per km pro rata basis i.e., total expenses x120/170 (120 km=170 km minus 50 km).

4.35 Accordingly, the special O&M Norms as computed by the Petitioner for GLPL Units 1 and 2 is as shown in the table below:

Table 21:Special O&M expenses as claimed by the Petitioner (Rs. Crore)

Particulars	FY 2010-11 (Unit 2 for 20 days)		FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Special O&M expense for Water pipe lines>50 km								
Expense for Man-Power engaged for operation & maintenance for pumping stations	0.00	0.00	0.04	0.22	0.25	0.25	0.30	0.30
Expense for maintenance of Raw water pipe line	0.00	0.00	0.01	0.03	0.02	0.02	0.05	0.05

Expenses for Spares & Lubrications for R&M of pumping stations	0.00	0.00	0.00	0.01	0.03	0.03	0.00	0.00
Expenses for Electricity Consumption of pumping stations (Rs.)	0.00	0.01	0.40	1.94	1.07	1.07	0.89	0.89
Total	0.00	0.01	0.45	2.20	1.37	1.37	1.23	1.23

4.36 As per the Regulation 10(1) of the RERC Tariff Regulations, 2009 states that:

“The approved aggregate gain to the Applicant on account of controllable factors shall be dealt with in the following manner: (a) 50% of such gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order of the Commission; (b) The balance amount of gain may be utilized at the discretion of the Applicant.”

4.37 The Petitioner further submitted that in terms of the above Regulation, the generating station after considering 50% gains, claims the total O&M Expenses as summarized below:

Table 22: Net O&M Entitlement of total O&M Expenses (Rs. Crore)

Particulars	FY 2010-11 (Unit 2 for 20 days)		FY 2011-12 (Unit - 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
O & M Expenses								
A. O&M Expenses (Normative)	0.00	1.16	10.14	22.35	23.63	23.63	24.98	24.98
B. O&M Expenses (Actual other than Special O&M)	0.00	0.85	6.46	9.68	13.82	14.25	18.10	14.74
C. Special O&M expense for Water pipe lines > 50 km	0.00	0.01	0.45	2.20	1.37	1.37	1.23	1.23
D. O&M Expenses (Actual) (B+C)	0.00	0.85	6.91	11.88	15.19	15.62	19.33	15.97
E. Gain on account of O&M Expenses (A-B)	0.00	0.31	3.68	12.68	9.82	9.38	6.89	10.25

Particulars	FY 2010-11 (Unit 2 for 20 days)		FY 2011-12 (Unit - 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
O & M Expenses								
F. Sharing (50%) of gain on account of O&M Expenses	0.00	0.16	1.84	6.34	4.91	4.69	3.44	5.12
G. O&M Expenses Claim (D+F)	0.00	1.01	8.75	18.22	20.09	20.31	22.77	21.09

Commission's Analysis

- 4.38 Regulation 48(b) of the RERC Tariff Regulations, 2009 specifies the normative O&M expenses of Rs. 16.00 Lakh per MW for FY 2009-10 for lignite based generating stations. Further, Regulation 25(4) of the RERC Tariff Regulations, 2009 specifies that the normative O&M expenses allowed for FY 2009-10 shall be escalated at the rate of 5.72% per annum for each year of the Control Period.
- 4.39 The Commission has verified GLPL's computations of normative O&M expenses and found it to be in order and accordingly, the same has been approved.
- 4.40 Regulation 48 (C) of RERC Tariff Regulations, 2009 specifies as under:
"(4) In case the process water is required to be transported over a distance of more than 50 km, then appropriate special O&M expenses, subject to the prudence check by the Commission, shall be allowed in addition to the above O&M expenses. It shall include O&M expenses related to pipe line beyond 50 km and water pumping station operation cost, and additional power consumption for such stations."
- 4.41 The Commission observed that the Petitioner has not substantiated its claim towards special O&M expenses its petition. The Commission therefore directed the Petitioner to submit the same. In response the Petitioner vide its reply to objections dated 10.05.2017 submitted the basis of allocation of

various expenses on the Units. The Petitioner however did not submit any supporting documents to justify the cost booked. However, it is observed that the Petitioner has revised its claim for both the units. The Commission has considered the revised submissions of the Petitioner. The Commission is of the view that as the O&M contract has been given for the entire pipe line and in the absence of actual expenses incurred in segregation for the pipeline that is beyond 50 km range and within 50 km range, the Commission is unable to carry out the prudence check of actual O&M expenses incurred against this pipeline beyond 50 Km. Allowing the special O&M on pro-rata basis will not be a correct approach because many overheads may be common for pipeline beyond the range of 50 km and within the range of 50 km. Therefore, in line with the approach adopted by the Commission in its previous Orders, the Commission in view of the above has only approved the electricity consumption charges in the special O&M expenses as claimed by GLPL.

4.42 The Special O&M and the total O&M expenses approved by the Commission for FY 2010-11 to FY 2013-14 are as shown in Tables below.

Table 23: Special O&M for Unit 1 approved by the Commission for FY 2011-12 to FY 2013-14 (Rs. Crore)

Particulars	FY 2011-12		FY 2012-13		FY 2013-14	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
Electricity consumption Cost	0.41	0.41	0.85	0.85	0.46	0.46
Pipe Line maintenance Cost	0.07	0.00	0.04	0.00	0.10	0.00
Repair Cost	0.00	0.00	0.02	0.00	0.01	0.00
Employee Cost	0.31	0.00	0.39	0.00	0.43	0.00
Sub-total	0.79	0.41	1.30	0.85	1.00	0.46

**Table 24: Special O&M for Unit 2 approved by the Commission for
FY 2010-11 to FY 2013-14 (Rs. Crore)**

Particulars	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Electricity consumption Cost	0.02	0.02	0.74	0.74	0.89	0.89	0.48	0.48
Pipe Line maintenance cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Repair Cost	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
Employee cost	0.06	0.00	0.11	0.00	0.12	0.00	0.15	0.00
Sub-total	0.08	0.02	0.85	0.74	1.03	0.89	0.64	0.48

4.43 The Commission has accordingly approved the total O&M expenses as shown in the table below.

Table 25: O&M Expenses Approved by the Commission (Rs. Crore)

Particulars	FY 2010-11		FY 2011-12				FY 2012-13				FY 2013-14			
	Unit 2		Unit 1		Unit 2		Unit 1		Unit 2		Unit 1		Unit 2	
	Clai med	Appr oved	clai med	Appr oved	Clai med	Appr oved	Clai med	Appr oved	clai med	Appr oved	clai med	Appr oved	Clai med	Appr oved
Capacity (MW)	125	125	125	125	125	125	125	125	125	125	125	125	125	125
Normative (Rs. Lakh/MW)	16.92	16.92	17.88	17.88	17.88	17.88	18.91	18.91	18.91	18.91	19.99	19.99	19.99	19.99
Normative (Rs. Crore)	1.16	1.16	10.14	10.14	22.35	22.35	23.63	23.63	23.63	23.63	24.98	24.98	24.98	24.98
Special O&M (Rs. Crore)	0.08	0.02	0.79	0.41	0.85	0.74	1.30	0.85	1.03	0.89	1.00	0.46	0.64	0.48
Total O&M Approved	1.24	1.18	10.93	10.55	23.20	23.09	24.93	24.49	24.66	24.53	25.99	25.45	25.62	25.47

Additional Liability towards Pension and Gratuity

GLPL's Submission

4.44 The Petitioner in its petition with regard to Unit 2 has claimed additional liability towards pension and gratuity in FY 2012-13 for an amount of Rs. 3.57 Crore.

Commission's Analysis

4.45 The Commission in its order dated 7.9.2015 while carrying out the truing up of FY 2012-13 had allocated Rs. 3.57 Crore on Unit 2 and since the truing up of Unit 2 was yet to be carried out hence the same was not allowed in the order. The Commission has therefore allowed the same.

Capital Cost as on COD and Additional Capitalisation

GLPL's Submission

4.46 Unit 1 had achieved COD on 18.10.2011 and Unit 2 had achieved COD on 12.03.2011. Vide its order dated 12.08.2015 in Petition No. 483/14, the Commission had approved the Capital Cost as on COD for Unit 1 as Rs. 783.43 Crore as against Rs. 949.82 Crore claimed by GLPL. Vide its order dated 12.08.2015 in Petition No. 481/14, the Commission had approved the Capital Cost as on COD of Unit 2 as Rs. 848.71 Crore as against Rs. 915.57 Crore claimed by GLPL.

4.47 For the purpose of instant Petition for true up of ARR and Tariff for FY 2010-11 to FY 2013-14, the Capital Cost as on COD of the respective Units has been considered as approved by the Commission. Subsequently, the actual additional capitalisation from COD and reduction in GFA on account of transfer of assets and writing off of the assets for the respective Units till FY 2013-14 has been considered by GLPL. The capital cost, additional capitalisation, deletions of assets as claimed by the Petitioner as shown in the table below.

Table 26: GFA for Unit 1 claimed by GLPL (Rs. Crore)

Year	Opening Balance	Addition during the year	Written off during the year	Closing balance
FY 2011-12	0.00	(COD-783.43)+(0.15 after COD till 31.03.2012)	0.00	783.46

Year	Opening Balance	Addition during the year	Written off during the year	Closing balance
FY 2012-13	783.46	0.30	6.82	776.94
FY 2013-14	776.94	0.00	0.00	776.94

Table 27: GFA for Unit 2 claimed by GLPL (Rs. Crore)

Year	Opening Balance	Addition during the year	Written Off during the year	Closing Balance
FY 2010-11	0.00	848.71	0.00	848.71
FY 2011-12	848.71	0.04	2.17	846.58
FY 2012-13	846.58	0.00	0.00	846.58
FY 2013-14	846.58	0.00	0.00	846.58

Commission's Analysis

4.48 Vide its order dated 12.08.2015 in Petition No. 483/14, the Commission had approved the Capital Cost as on COD for Unit 1 as Rs. 783.43 Crore. Vide its order dated 12.08.2015 in Petition No. 481/14, the Commission had approved the Capital Cost as on COD of Unit 2 as Rs. 848.71 Crore. For truing up of tariff for FY 2010-11 to FY 2013-14, the Commission has considered the Capital Cost as on COD of the respective Units as approved in the respective orders and has also considered the transfer of assets/ deduction in assets approved by the Commission in this order as discussed in the following paragraphs.

4.49 Regulation 19 of the RERC Tariff Regulations 2009, states that:

“Additional capitalization

(1) The following capital expenditure, actually incurred after the date of commercial operation and duly audited, may be considered by the Commission, subject to prudent check (a) Due to deferred liabilities within the original scope of work, (b) On works within the original scope of work, deferred for execution (c) To meet award of arbitration or satisfaction of order or decree of a court arising out of original scope of works, (d) On

account of change in law, (e) On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in Regulation 18, (f) Any additional works/ services, which have become necessary for efficient and successful operation of a generating station or a transmission or a distribution system but not included in the original capital cost."

4.50 The Petitioner in terms of above regulation has claimed the following additional capital expenditure for Unit – 1

During FY 2011-12

1. Rs. 146918/- under the head line cables network towards balance work completed as per Regulation 19(1) (a) of RERC Tariff Regulations, 2009.
2. Rs. 3797/- under the head furniture and fixture towards balance payment released as per Regulation 19(1) (a) of RERC Tariff Regulations, 2009.

During FY 2012-13

1. Rs. 2946909 /- under the head plant and machinery towards balance payment released to A.H.P Zuberi as per Regulation 19(1) (a) of RERC Tariff Regulations, 2009.
2. Rs. 65857/- under the head vehicle towards balance payment released as per Regulation 19(1) (a) of RERC Tariff Regulations, 2009.
3. Rs. 1947317/-, Rs 1552331/-, and Rs. 64671395/- towards land, Plant & Machinery and Building and other civil works respectively have been transferred to RVPN through an inter-company transaction.

4.51 Further, the Petitioner with respect to Unit- 2 of the generating station has submitted the following additional capital expenditure.

During FY 2011-12

4.52 Under the head Plant & Machinery Rs. 2,16,99,397/- were written-off and under the following heads additions are made:

S.No.	Particulars	Amount(Rs.)
1	Building & Civil works of Power plant	31,953
2	Hydraulic works	1,82,527
3	Other Civil works	5,540
4	Lines and Cable Networks	2,04,379
	Total	4,24,399

4.53 The Commission observes that the additional capitalisation claimed by the Petitioner is on account of balance payment made towards works executed before the cut off date which was part of the original scope of work. The Commission has therefore, considered the additional capitalisation as submitted by the Petitioner for both the units under Regulation 19(1)(a) of the RERC Tariff Regulations, 2009.

4.54 Further, in regards to the transfer of assets/deduction of assets the Commission has considered the transfer of assets of an amount of Rs. 6.82 crore from GLPL Unit 1 to RVPN through an inter-company transaction in FY 2012-13 and the deduction of an amount of Rs. 2.17 crore for Unit 2 in FY 2011-12 as submitted by the Petitioner. Accordingly, the revised GFA approved by the Commission for Unit 1 and Unit 2 is given in Table below:

Table: Revised GFA for Unit 1

Particular	As per order dated 12.08.2015	Add. Cap. (FY 2011-12)	Add. Cap. (FY 2012-13)	Add. Cap. (FY 2013-14)
Land & Land Rights	1.50	0.00	-0.19	0.00
Building & civil Works of Power Plants	95.14	0.00	-6.47	0.00

Particular	As per order dated 12.08.2015	Add. Cap. (FY 2011-12)	Add. Cap. (FY 2012-13)	Add. Cap. (FY 2013-14)
Hydraulic Works	69.08	0.00	0.00	0.00
Plant & Machinery	616.58	0.01	0.29	0.00
Lines & cable Network	0.46	0.00	-0.16	0.00
Vehicles	0.16	0.00	0.01	0.00
Furniture & Fixtures	0.38	0.00	0.00	0.00
Office Equipment	0.14	0.00	0.00	0.00
Total	783.44	0.02	-6.52	0.00

Table 28: GFA approved by the Commission for Unit 1

Particulars	FY 2011-12		FY 2012-13		FY 2013-14	
	Opening GFA	Closing GFA	Opening GFA	Closing GFA *	Opening GFA	Closing GFA
Land & Land Rights	1.50	1.50	1.50	1.31	1.31	1.31
Building & civil Works of Power Plants	95.14	95.14	95.14	88.67	88.67	88.67
Hydraulic Works	69.08	69.08	69.08	69.08	69.08	69.08
Plant & Machinery	616.58	616.59	616.59	616.89	616.89	616.89
Lines & cable Network	0.46	0.46	0.46	0.30	0.30	0.30
Vehicles	0.16	0.16	0.16	0.17	0.17	0.17
Furniture & Fixtures	0.38	0.38	0.38	0.38	0.38	0.38
Office Equipment	0.14	0.14	0.14	0.14	0.14	0.14
Total	783.44	783.46	783.46	776.94	776.94	776.94

*Transfer of Assets of Rs. 6.82 Crore approved by the Commission

Table: Revised GFA approved by the Commission for Unit -2

Particular	As per order dated 12.08.2015	Add. Cap. (FY 2011-12)	Add. Cap. (FY 2012-13)	Add. Cap. (FY 2013-14)
Land & Land Rights	0.02	0.00	0.00	0.00

Particular	As per order dated 12.08.2015	Add. Cap. (FY 2011-12)	Add. Cap. (FY 2012-13)	Add. Cap. (FY 2013-14)
Building & civil Works of Power Plants	1.96	0.00	0.00	0.00
Hydraulic Works	29.72	0.00	0.00	0.00
Other Civil Works	0.34	0.00	0.00	0.00
Plant & Machinery	799.88	-2.13	0.00	0.00
Lines & cable Network	16.74	0.00	0.00	0.00
Vehicles	0.00	0.00	0.00	0.00
Furniture & Fixtures	0.01	0.00	0.00	0.00
Office Equipment	0.04	0.00	0.00	0.00
Capital Spares	0.00	0.00	0.00	0.00
Total	848.71	-2.13	0.00	0.00

Table 29:GFA approved by the Commission Unit 2

Particulars	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
	Opening GFA	Closing GFA	Opening GFA	Closing GFA*	Opening GFA	Closing GFA	Opening GFA	Closing GFA
Land & Land Rights	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Building & civil Works of Power Plants	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
Hydraulic Works	29.72	29.72	29.72	29.72	29.72	29.72	29.72	29.72
Other civil works	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Plant & Machinery	799.88	799.88	799.88	797.75	797.75	797.75	797.75	797.75
Lines & cable Network	16.74	16.74	16.74	16.74	16.74	16.74	16.74	16.74
Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Furniture & Fixtures	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Office Equipment	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Capital spares	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	848.71	848.71	848.71	846.58	846.58	846.58	846.58	846.58

*Deduction of Rs. 2.17 Crore approved by the Commission

Depreciation

GLPL's Submission

4.55 The details of depreciation claimed by the Petitioner vis-a-vis that approved by the Commission are as shown in the Table below.

Table 30: Depreciation claimed by GLPL (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in Tariff Order	2.45	17.89	44.77	39.45	44.77	39.45	44.77
As per petition	2.45	17.89	44.71	39.35	44.65	39.24	44.65

Commission's Analysis

4.56 The Commission has computed depreciation on the basis of approved Capital Cost as on COD of the respective Units and approved additional capitalisation and deduction in assets/ transfer of assets for Unit 1 & 2 by the Commission in this order, in accordance with the RERC Tariff Regulations, 2009. The depreciation approved by the Commission is as shown in the tables below:

Table 31: Depreciation approved by the Commission for Unit 1 (Rs. Crore)

Particulars	GFA base	Rate of depreciation	Depreciation		
			FY 2011-12	FY 2012-13	FY 2013-14
Land & Land Rights	1.50	0.00%	0.00	0.00	0.00
Building & civil Works of Power Plants	95.14	3.34%	1.44	3.07	2.96
Hydraulic Works	69.08	5.28%	1.65	3.65	3.65
Plant & Machinery	616.58	5.28%	14.77	32.56	32.57

Particulars	GFA base	Rate of depreciation	Depreciation		
			FY 2011-12	FY 2012-13	FY 2013-14
Lines & cable Network	0.46	5.28%	0.01	0.02	0.02
Vehicles	0.16	9.50%	0.01	0.02	0.02
Furniture & Fixtures	0.38	6.33%	0.01	0.02	0.02
Office Equipment	0.14	6.33%	0.00	0.01	0.01
Total	783.44		17.89	39.35	39.25

Table 32: Depreciation approved by the Commission for Unit 2 (Rs. Crore)

Particulars	GFA base	Rate of depreciation	Depreciation			
			FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Land & Land Rights	0.02	0.00%	0.00	0.00	0.00	0.00
Building & civil Works of Power Plants	1.96	3.34%	0.00	0.07	0.07	0.07
Hydraulic Works	29.72	5.28%	0.09	1.57	1.57	1.57
Other civil works	0.34	3.34%	0.00	0.01	0.01	0.01
Plant & Machinery	799.88	5.28%	2.31	42.18	42.12	42.12
Lines & cable Network	16.74	5.28%	0.05	0.88	0.88	0.88
Vehicles	0.00	9.50%	0.00	0.00	0.00	0.00
Furniture & Fixtures	0.01	6.33%	0.00	0.00	0.00	0.00
Office Equipment	0.04	6.33%	0.00	0.00	0.00	0.00
Total	848.71		2.45	44.71	44.65	44.65

Interest on Term Loan and Finance Charges

GLPL's Submission

4.57 GLPL submitted that the term loan and finance charges have been worked out as per Regulation 22 of RERC Tariff Regulations, 2009. The normative loan approved by the Commission in its orders dated 12.08.2015 for Unit 1 and Unit 2 and addition/ reduction in loan corresponding to the capitalisation/write off of gross fixed assets in the respective years has been considered. The loan repayment has been considered equal to the amount of depreciation for the respective year. Interest on term loan and finance charges claimed by the Petitioner is as show in the table below.

Table 33: Interest on Term Loan and Finance charges claimed by GLPL (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in Tariff Order	4.68	28.14	72.98	62.49	67.95	59.54	62.91
As per petition	4.55	33.16	68.34	69.60	63.19	64.83	60.20

Commission's Analysis

4.58 The Commission in its order dated 12.08.2015 approved the normative loan for GLPL Unit 1 & 2. As per RERC Tariff Regulation, 2009 the repayment of loan is equal to the depreciation approved by the Commission for the respective year. The debt: equity ratio while allowing the Transfer of assets/ deduction in assets has been considered the same as considered by the Petitioner in the Petition.

4.59 As per Regulation 22(5) of the RERC Tariff Regulations, 2009, the interest rate for computing interest on loan shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year. The Commission sought the computations of weighted average interest rate for FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14in accordance with

Regulation 22(5) of RERC Tariff Regulations, 2009. The Petitioner in response submitted the year wise computation of weighted average interest on loan for both the units.

4.60 The Commission for computing the rate of interest for actual loans has considered the interest rate as applicable at the beginning of each year and has computed the weighted average rate of interest considering the opening loan balances submitted by the Petitioner.

4.61 The Petitioner in its petition has claimed the finance charges for GLPL Unit 1. The Commission directed the Petitioner to submit the basis of claiming finance charges. The Petitioner in response submitted that the financing charges claimed is the amount actually paid to the government as levy/commission for providing guarantee on working capital loan specific to each station. The Commission has therefore considered the financing charges paid toward funding of working capital loan. The details of Interest on Loan for GLPL Unit 1 & 2 is as shown in tables below:

Table 34: Details of Interest on Loan for Unit 1 for FY 2010-11 to FY 2013-14

Particulars	FY 2011-12		FY 2012-13		FY 2013-14	
	GLPL Petition	Approved	GLPL Petition	Approved	GLPL Petition	Approved
Opening Balance	630.84	630.84	612.95	612.96	567.08	567.10
Receipts during the Year	0.00	0.02	-6.52	-6.52	0.00	0.00
Repayment made during the Year	17.89	17.89	39.36	39.35	39.25	39.25
Closing Balance	612.95	612.96	567.08	567.10	527.82	527.85
Weighted Average Interest Rate	11.67%	11.67%	11.70%	11.70%	11.75%	11.75%
Interest	32.91	32.91	69.05	69.06	64.35	64.35
Finance Charges	0.25	0.25	0.54	0.54	0.48	0.48
Interest and Finance Charges	33.16	33.16	69.60	69.60	64.83	64.83

Table 35: Details of Interest on Loan for Unit 2 for FY 2010-11 to FY 2013-14

Particulars	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
	GLPL petition	Approved	GLPL Petition	Approved	GLPL Petition	Approved	GLPL Petition	Approved
Opening Balance	673.57	673.57	630.84	671.12	584.00	624.28	539.35	579.63
Receipts during the Year	0.00	0.00	-2.13	-2.13	0.00	0.00	0.00	0.00
Repayment made during the Year	2.45	2.45	44.71	44.71	44.65	44.65	44.65	44.65
Closing Balance	671.12	671.12	584.00	624.28	539.35	579.63	494.69	534.97
Weighted Average Interest Rate	12.36%	12.36%	11.25%	11.25%	11.25%	11.25%	11.64%	11.64%
Interest	4.55	4.55	68.34	72.87	63.19	67.72	60.20	64.89

Recovery of ARR and Tariff Petition Fees
GLPL's Submission

4.62 The Petitioner has claimed the audited figures for recovery of ARR and Tariff Petition fees as summarized under.

Table 36: Recovery of ARR and Tariff Petition Fees claimed by GLPL (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in Tariff Order	0.13	0.13	0.13	0.13	0.13	0.13	0.13
As per petition	0.07	0.06	0.07	0.06	0.07	0.06	0.07

Commission's Analysis:

4.63 The Commission has considered the submission of the Petitioner and has allowed the following recovery of ARR and Tariff petition fees:

Table 37: Recovery of ARR and Tariff Petition fees approved by the Commission (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Allowed after True Up	0.06	0.06	0.06	0.06	0.06	0.06	0.06

Insurance Charges

GLPL's Submission

4.64 The Petitioner has claimed the audited figures Insurance Charges as summarized under:

Table 38: Insurance Charges Claimed by GLPL (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in Tariff Order	0.04	0.61	0.79	0.45	0.56	0.66	0.65
As per petition	0.04	0.61	0.79	0.45	0.56	0.66	0.65

Commission's Analysis:

4.65 The Commission directed the Petitioner to submit the details of actual insurance premium paid for each unit. In response the Petitioner submitted the same. The Commission has considered the submission of the Petitioner and has allowed the following Insurance charges as shown in the table below.

Table 39: Insurance charges approved by Commission (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Approved after True up	0.04	0.61	0.79	0.45	0.56	0.65	0.65

Interest on Working Capital

GLPL's Submission

4.66 The Petitioner submitted that the interest on working capital for FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14 for GLPL Unit 1 & 2 has been computed as per Regulation 28 of RERC Tariff Regulations, 2009.

4.67 Further, the rate of interest on working capital for FY 2010-11, FY 2011-12 FY 2012-13 and FY 2013-14 has been taken equal to 250 basis points higher than the average Base Rate of State Bank of India prevalent during first six months of the previous year. The interest rate computed by the Petitioner comes out as 11.75%, 13.00%, 13.24%, and 12.48% for FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14 respectively for Unit-1 and Unit 2. The Interest on working capital as per audited accounts and the normative loWC as per RERC Tariff Regulations, 2009 is as shown in the table below:

Table 40: Interest on working capital claimed by GLPL (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit - 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in Tariff Order	0.11	2.02	5.15	5.14	5.39	5.07	5.29
As per Audited Accounts	0.44	3.47	3.75	6.09	6.37	4.29	2.64
Normative loWC	0.22	1.57	3.62	3.73	4.59	3.44	3.60

4.68 As per the Regulation 10(2) of the RERC Tariff Regulations, 2009 the generating station after considering 50% gains, claims the total Interest on Working capital as summarized below:

**Table 41: Sharing of Interest on Working Capital as claimed by the Petitioner
(Rs. Crore)**

Particulars	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit-1	Unit 2	Unit-1	Unit 2	Unit-1	Unit 2
Interest on Working Capital (As per Accounts/Actual)(A)	0.44	3.47	3.75	6.09	6.37	4.29	2.64
Interest on Working Capital(As per Norms) (B)	0.22	1.57	3.62	3.73	4.59	3.44	3.60
Loss/(Gain) on account of Interest on Working Capital(A-B) (C)	0.22	1.90	0.13	2.36	1.77	0.85	-0.97
Sharing(50%) of loss on account of Interest on Working Capital (D)	0.11	0.95	0.06	1.18	0.89	0.43	-0.48
Interest on Working Capital Claim (B+D)	0.33	2.52	3.69	4.91	5.48	3.86	3.12

Commission's Analysis:

4.69 Regulation 28 of RERC Tariff Regulations, 2009 states that the rate of interest on working capital to be computed on normative basis and shall be 250 basis points higher than the average base rate of State Bank of India prevalent during first six months of the year previous to the relevant year.

4.70 The Commission computed the rate of interest on working capital for GLPL Unit 1 & 2 as per the norms prescribed in the RERC Tariff Regulations, 2009 which works out to be 11.75%, 13.00%, 13.23% and 12.48% for FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14 respectively. The Interest on Working capital approved for Unit 1 & 2 are as shown in the table below:

Table 42: Details of Interest on Working Capital for Unit 1 & 2

Particulars	Norms considered	FY 2010-11	FY 2011-12		FY 2012-13		FY 2013-14	
		Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Approved by the Commission								
Lignite cost (pit head)	0.5 month	1.60	0.55	0.75	0.72	0.59	0.57	0.60
Lime Cost	1.5 months	0.53	0.40	0.54	0.49	0.40	0.36	0.39
Sec fuel oil	2 months	0.52	0.59	0.83	0.83	0.66	0.59	0.66
O& M expenses	1 month	1.18	1.91	1.92	2.04	2.04	2.12	2.12
Maintenance spares	20 % of O&M	0.24	2.11	4.62	4.90	4.91	5.09	5.09
Receivables	1.5 months	11.57	19.47	21.43	20.47	20.74	19.18	20.07
Working Capital Loan Requirement		15.65	25.03	30.11	29.45	29.34	27.92	28.93
Rate of Interest (%)		11.75	13.00	13.00	13.23	13.23	12.48	12.48
Interest on working Capital		0.10	1.48	3.91	3.90	3.88	3.49	3.61

4.71 loWC being controllable parameter, the Commission has carried out sharing of gains and loss as per Regulation 10 of the RERC Tariff Regulations, 2009.

4.72 Further, as the Commission has not allowed financing charges paid by the Petitioner to the government on account of levy/commission for providing guarantee on the working capital loan, the Commission has added such amount to loWC for the respective year for the purpose of sharing of gains and losses as shown below.

Table 43: Sharing of IoWC as Approved (Rs. Crore)

IOWC True Up	FY 2010-11	FY 2011-12		FY 2012-13		FY 2013-14	
Particulars	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As per accounts	0.44	3.47	3.75	6.09	6.37	4.29	2.64
Normative	0.10	1.48	3.91	3.90	3.88	3.49	3.61
(Gains) and Loss	0.34	2.00	(0.16)	2.20	2.49	0.81	(0.97)
50% sharing	0.17	1.00	(0.08)	1.10	1.24	0.40	(0.49)
Net Entitlement	0.27	2.47	3.83	4.99	5.12	3.88	3.12

Non-Tariff Income

Petitioner's Submission

4.73 The Petitioner submitted that the main heads of accounts of Non-Tariff income are sale of scrap, income from rent on land/buildings and miscellaneous receipts (rebates etc.) The Non-Tariff income submitted by the Petitioner is as shown in the table below.

Table 44: Non-Tariff Income Claimed by GLPL Unit-1 (Rs. Crore)

Particular	FY 2011-12	FY 2012-13	FY 2013-14
	Unit 1	Unit 1	Unit 1
As approved in the Tariff Order	1.07	2.35	2.40
As per petition	1.07	0.30	0.41

Table 45: Non-Tariff Income Claimed by GLPL Unit-2 (Rs. Crore)

Particular	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
	Unit 2	Unit 2	Unit 2	Unit 2
As approved in Tariff Order	0.01	0.21	0.22	0.23
Non Tariff Income	0.01	0.07	0.06	0.08
Add: Corporate Office Share	0.00	1.31	0.27	0.23
Total Claimed as per petition	0.01	1.38	0.34	0.31

Commission's Analysis:

4.74 The Commission has considered the non tariff income as submitted by the Petitioner on the basis of audited accounts. The Non-Tariff income approved by the Commission for GLPL Unit 1&2 is as show in the table below:

**Table 46: Non-Tariff Income Approved by the Commission
For FY 2010-11 to FY 2013-14 (Rs. Crore)**

Particular	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As per petition	0.00	0.01	1.07	1.38	0.30	0.34	0.41	0.31
Approved	0.00	0.01	1.07	1.38	0.30	0.34	0.41	0.31

Return on Equity (RoE)

4.75 In view of GLPL not claiming any RoE for the two units, the Commission has not provided for the same for true up of both the units from COD till FY 2013-14.

Prior Period Expenses

Petitioner's Submission

4.76 The Petitioner has claimed these expenses on the basis of audited figures for prior period expenses which is as summarized under.

Table 47: prior period expenses claimed by GLPL (Rs. Crore)

Particular	FY 2010-11 (Unit 2 for 20 days)	FY 2011-12 (Unit – 1 for 166 days)		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
As approved in the Tariff Order	0.00	0.00	0.00	0.00	0.00	0.00	0.00
As per petition	0.00	0.00	1.71	2.02	0.52	0.67	0.02

Commission's Analysis:

4.77 The Commission has gone through the submissions of the Petitioner. As per the details of prior period expenses as provided in the accounts it is observed that none of these expenses pertain to fuel and are against interest and financing charges, administration and general expenses etc. The Commission therefore in line with its previous approach has therefore not approved any prior period expenses for both the units.

Annual Fixed Charges:

4.78 Based on the above analysis, the approved Fixed charges of the GLPL Unit 1 &2 for FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14 are as under:

Table 48: Annual Fixed Charges for FY 2010-11 (Rs. Crore)

Particulars	FY 2010-11	
	Unit 2	
	Claimed	Approved
Interest on Term Loans and Finance Charges	4.55	4.55
Depreciation	2.45	2.45
O & M Expenses	1.01	1.18
Return on Equity	0.00	0.00
Interest on WC	0.33	0.10
Recovery of ARR & Tariff Petition fees	0.07	0.06
Insurance Charges	0.04	0.04
Gross Fixed Charges	8.46	8.39
Non-Tariff Income	0.01	0.01
Net Fixed Cost (i.e. Capacity Charges)	8.45	8.38

Table 49: Annual Fixed Charges for FY 2011-12 (Rs. Crore)

Particulars	FY 2011-12			
	Unit 1		Unit 2	
	Claimed	Approved	Claimed	Approved
Interest on Term Loans and Finance Charges	33.16	33.16	68.34	72.87
Depreciation	17.89	17.89	44.71	44.71
O & M Expenses	8.75	10.55	18.22	23.09
Return on Equity	0.00	0.00	0.00	0.00
Interest on WC	2.52	1.48	3.69	3.91
Recovery of ARR & Tariff Petition fees	0.06	0.06	0.07	0.06
Insurance Charges	0.61	0.61	0.79	0.79
Prior Period Expenses	0.00	0.00	1.71	0.00
Gross Fixed Charges	63.01	63.76	137.52	145.43
Non-Tariff Income	1.07	1.07	1.38	1.38
Net Fixed Cost (i.e. Capacity Charges)	61.94	62.68	136.14	144.04

Table 50: Annual Fixed Charges for FY 2012-13 (Rs. Crore)

Particulars	FY 2012-13			
	Unit 1		Unit 2	
	Claimed	Approved	Claimed	Approved
Interest on Term Loans and Finance Charges	69.60	69.60	63.19	67.72
Depreciation	39.35	39.35	44.65	44.65
O & M Expenses	20.09	24.49	20.31	24.53
Return on Equity	0.00	0.00	0.00	0.00
Interest on WC	4.91	3.90	5.48	3.88
Recovery of ARR & Tariff Petition fees	0.06	0.06	0.07	0.06

Particulars	FY 2012-13			
	Unit 1		Unit 2	
	Claimed	Approved	Claimed	Approved
Insurance Charges	0.45	0.45	0.56	0.56
Prior Period Expenses	2.02	0.00	0.52	0.00
Additional Liability towards P&G	0.00	0.00	3.57	3.57
Gross Fixed Charges	136.48	137.84	138.35	144.97
Non-Tariff Income	0.30	0.30	0.34	0.34
Net Fixed Cost (i.e. Capacity Charges)	136.19	137.55	138.01	144.63

Table 51: Annual Fixed Charges for FY 2013-14 (Rs. Crore)

Particulars	FY 2013-14			
	Unit 1		Unit 2	
	Claimed	Approved	Claimed	Approved
Interest on Term Loans and Finance Charges	64.83	64.83	60.20	64.89
Depreciation	39.24	39.25	44.65	44.65
O & M Expenses	22.77	25.45	21.09	25.47
Return on Equity	0.00	0.00	0.00	0.00
Interest on WC	3.86	3.49	3.12	3.61
Recovery of ARR & Tariff Petition fees	0.06	0.06	0.07	0.06
Insurance Charges	0.66	0.65	0.65	0.65
Prior Period Expenses	0.67	0.00	0.02	0.00
Gross Fixed Charges	132.10	133.72	129.81	139.34
Non-Tariff Income	0.41	0.41	0.31	0.31
Net Fixed Cost (i.e. Capacity Charges)	131.69	132.31	129.49	139.02

4.79 The recovery of full fixed charges is allowed if the actual Availability is equal to or more than the target Availability. If the actual Availability is lower than the Target Availability, the approved normative Fixed Charges are reduced proportionately in truing up. In this regard, the Commission is of the view that additional liability towards pension and gratuity should not be considered in AFC for proportionate reduction in Fixed Charges as this is a sort of additional expenditure allowed separately and is not a part of AFC. Further, GLPL should be able to honour the payment to the fund as per the approval of the Commission. Hence, the Commission has not considered the additional liability towards pension and gratuity in Annual Fixed Charges for the purpose of proportionate reduction of Annual Fixed Charges for non-achievement of Target Availability.

Table 52: Approved AFC and AFC Reduced for not achieving Target Availability

(Rs. Crore)

Particulars	FY 2010-11	FY 2011-12		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
AFC Trued Up	8.39	63.76	145.43	137.84	141.40	133.72	139.34
Actual Availability (%)	60.26	16.02	24.17	20.98	17.19	13.02	16.64
Normative Availability (%)	70.00	70.00	70.14	71.13	72.64	73.63	75.14
AFC Reduction	1.17	49.16	95.31	97.18	107.93	110.08	108.48
AFC allowed to be recovered	7.23	14.60	50.12	40.66	37.04	23.64	30.86

Revenue Gain/(Loss) due to lower/higher auxiliary consumption

4.80 The Commission, as elaborated in the preceding paragraphs has approved the normative auxiliary consumption for both the units. Further, as auxiliary consumption is a controllable performance parameter, the Commission has carried out the sharing of revenue gain/loss due to lower /higher auxiliary consumption in comparison to the normative auxiliary consumption for each Station as shown in the Table below:

Table 53: Revenue Gain/(Loss) due to Lower/Higher Auxiliary Consumption

Particulars	FY 2010-11	FY 2011-12		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Gross Generation (MU)	37.06	91.70	291.41	261.98	209.98	175.25	202.94
Actual Auxiliary Consumption (MU)	5.06	21.08	56.53	58.63	43.35	49.10	41.66
Normative Auxiliary Consumption (MU)	4.26	10.55	33.51	30.13	24.15	20.15	23.34
Lesser/(Additional) Sales due to (higher)/better Aux. Consumption (MU)	0.79	10.53	23.02	28.50	19.20	28.95	18.32
Approved Energy Charge (Rs./kWh)	0.97	1.13	1.06	1.13	1.15	1.30	1.20
Revenue Loss/(gain) due to higher /better Aux. Consumption (Rs.Cr)	0.08	1.19	2.45	3.22	2.20	3.76	2.19

4.81 The Commission has shared the 50% of the above revenue loss in accordance with the RERC Tariff Regulations, 2009.

Variable Charges

Commission's Analysis

4.82 The Commission has computed the variable charges for both the units considering the approved performance parameters and actual approved fuel price and calorific value. The variable charges computed by the Commission is as shown in the Tables below:

Table 54: Variable Charges approved by the Commission for Unit 1

Particulars	Units	FY 2011-12		FY 2012-13		FY 2013-14	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
No. of Days of Operation	Days	166	166	365	365	365	365
Total Capacity	MW	125	125	125	125	125	125
Availability	%	36.67%	36.67%	51.85%	51.85%	32.09%	32.09%
PLF (%)	%	18.41%	18.41%	23.93%	23.93%	16.01%	16.01%

Particulars	Units	FY 2011-12		FY 2012-13		FY 2013-14	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation (MU)	MU	91.70	91.70	261.98	261.98	175.25	175.25
Aux Cons (%)	%	22.98%	11.5%	22.380%	11.5%	28.02%	11.5%
Aux Cons (MU)	MU	21.08	10.55	58.63	30.13	49.10	20.15
Net generation (MU)	MU	70.62	81.15	203.35	231.85	126.15	155.10
Heat Rate	kCal/kWh	3562.71	2449.50	3795.14	2449.50	3809.87	2449.50
Fuel parameters (for each primary & secondary fuel)							
Gross Calorific Value							
Fuel 1(LDO)	kCal/ltr	10600.00	10600.00	10600.00	10600.00	10600.00	10600.00
Fuel 2(HFO)	kCal/ltr	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3(Lignite COAL)	kCal/kg	2859.00	2859.00	3019.00	3019.00	2774.00	2774.00
Fuel 4 (LIME)	kCal/kg	0.00	0.00	0.00	0.00	0.00	0.00
Landed Fuel Price per unit							
Fuel 1(LDO)	Rs./KL	59075.00	59075.00	63146.00	63146.00	67310.00	67310.00
Fuel 2(HFO)	Rs./KL	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3(Lignite COAL)	Rs./MT	780.00	781.17	823.75	824.99	896.15	897.50
Fuel 4 (LIME)	Rs./MT	602.00	602.00	583.00	583.00	581.95	581.95
Fuel Consumption & Heat Contribution							
Specific Fuel Consumption							
Fuel 1(LDO)	ml/kWh	2.04	3.00	1.57	3.00	2.09	3.00
Fuel 2(HFO)	ml/kWh						
Fuel 3(Lignite COAL)	Kg/kWh	1.24	0.85	1.25	0.80	1.37	0.87
Fuel 4 (LIME)	Kg/kWh	0.01	0.27	0.002	0.26	0.01	0.29
Total fuel consumption							
Fuel 1(LDO)	KL	192.98	275.10	412.50	785.94	372.54	525.75
Fuel 2(HFO)	KL	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3(Lignite COAL)	MT	114524	77546	327883	209801	243391	152740
Fuel 4 (LIME)	MT	742	24535	93.00	67673	1200	50038
Heat Contributed							
Fuel 1(LDO)	kCal/kWh	21.62	32	16.64	32	22.15	32
Fuel 2(HFO)	kCal/kWh	0	0	0	0	0.00	0
Fuel 3(Lignite COAL)	kCal/kWh	3541.09	2418	3778.50	2418	3787.72	2418
Fuel 4 (LIME)	kCal/kWh	0	0	0	0	0	0
Total Fuel Cost							
Fuel 1(LDO)	Rs Crore	1.14	1.63	2.60	4.96	2.51	3.54

Particulars	Units	FY 2011-12		FY 2012-13		FY 2013-14	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Fuel 2(HFO)	Rs Crore	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3(Lignite COAL)	Rs Crore	8.93	6.06	27.01	17.31	21.81	13.71
Fuel 4 (LIME)	Rs Crore	0.04	1.48	0.01	3.95	0.07	2.91
Total Fuel Cost	Rs Crore	10.12	9.16	29.62	26.22	24.39	20.16
Total Variable Cost	Rs Crore	10.12	9.16	29.62	26.22	24.39	20.16
Other Charges and Adjustment	Rs Crore	0.49	0.00	1.47	0.00	1.97	0.00
Total Fuel Cost		10.61	9.16	31.09	26.22	26.36	20.16
Cost of generation per unit (at generation terminal)	Rs/kWh	1.157	0.999	1.187	1.001	1.504	1.150
Energy Charge per unit (ex-bus)	Rs/kWh	1.502	1.129	1.529	1.131	2.090	1.300

Table 55: Variable Charges approved by the Commission for Unit 2

Particulars	Units	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
		Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
No. of Days of Operation	Days	20	20	366	366	365	365	365	365
Total Capacity	MW	125	125	125	125	125	125	125	125
Availability	%	90.23	90.23	48.85	48.85	37.95	37.95	37.45	37.45
PLF	%	61.76	61.76	26.54	26.54	19.18	19.18	18.53	18.53
Gross Gen.	MU	37.06	37.06	291.41	291.41	209.98	209.98	202.94	202.94
Aux Cons	%	13.6	11.5	19.4	11.5	20.6	11.5	20.5	11.5
Aux Cons	MU	5.06	4.26	56.53	33.51	43.35	24.15	41.66	23.34
Net generation	MU	32.00	32.79	234.88	257.90	166.63	185.83	161.28	179.60
Heat Rate	kCal/kWh	3380.07	2449.50	3601.55	2449.50	3765.68	2449.50	4197.07	2449.50
Fuel parameters (for each primary & secondary fuel)									
Gross Calorific Value									
Fuel 1(LDO)	kCal/ltr	10600.00	10600.00	10600.00	10600.00	10600.00	10600.00	10600.00	10600.00
Fuel 2(HFO)	kCal/ltr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3 (Lignite)	kCal/kg	3212.00	3212.00	3040.00	3040.00	2991.00	2991.00	3021.00	3021.00
Fuel 4 (LIME)	kCal/kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landed Fuel Price per unit									
Fuel 1(LDO)	Rs./KL	47168.00	47168.00	57230.00	57230.00	63256.00	63256.00	65305.00	65305.00
Fuel 2(HFO)	Rs./KL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Particulars	Units	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
		Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Fuel 3 (Lignite)	Rs./MT	762.00	763.14	779.40	780.57	830.00	831.25	887.00	888.33
Fuel 4 (Lime)	Rs./MT	577.00	577.00	592.00	592.00	582.00	582.00	582.00	582.00
Fuel Consumption & Heat Contribution									
Specific Fuel Consumption									
Fuel 1(LDO)	ml/kWh	0.70	3.00	1.81	3.00	2.82	3.00	2.06	3.00
Fuel 2(HFO)	ml/kWh								
Fuel 3(Lignite)	Kg/kWh	1.05	0.75	1.18	0.80	1.25	0.81	1.38	0.80
Fuel 4 (Lime)	Kg/kWh	0.13	0.25	0.05	0.25	0.02	0.26	0.01	0.26
Total fuel consumption									
Fuel 1(LDO)	KL	26.00	111.17	526.00	874.23	591.50	629.94	418.00	608.83
Fuel 2(HFO)	KL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3(Lignite)	MT	38906.00	27892.37	343404.00	231756.59	262270.63	169732.89	280475.00	162415.26
Fuel 4 (Lime)	MT	4669.00	9269	13398.00	73328	4658.00	54749	2142.00	53207
Heat Contributed									
Fuel 1(LDO)	kCal/kWh	7.44	31.80	19.13	31.80	29.86	31.80	21.83	31.80
Fuel 2(HFO)	kCal/kWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3(Lignite)	kCal/kWh	3372.63	2417.70	3582.41	2417.70	3735.82	2417.70	4175.24	2417.70
Fuel 4 (Lime)	kCal/kWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Fuel Cost									
Fuel 1(LDO)	Rs Crore	0.12	0.52	3.01	5.00	3.74	3.98	2.73	3.98
Fuel 2(HFO)	Rs Crore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel 3(Lignite)	Rs Crore	2.96	2.13	26.76	18.09	21.77	14.11	24.87	14.43
Fuel 4 (Lime)	Rs Crore	0.27	0.53	0.79	4.34	0.27	3.19	0.12	3.10
Total Fuel Cost	Rs Crore	3.36	3.19	30.57	27.43	25.78	21.28	27.72	21.50
Other Charges and adjustment	Rs Crore	0.86	0.00	1.25	0.00	0.47	0.00	0.76	0.00
Total Variable Cost	Rs Crore	4.213	3.188	31.82	27.434	26.25	21.280	28.48	21.501
Cost of generation per unit (at generation terminal)	Rs/kWh	1.137	0.860	1.092	0.941	1.250	1.013	1.404	1.059
Energy Charge per unit (ex-bus)	Rs/kWh	1.317	0.972	1.355	1.064	1.575	1.145	1.766	1.197

4.83 Further, the Commission has carried out the sharing of gains / losses on account of variation in controllable performance parameters (SHR, SFOC & Transit Losses) as shown in the Table below:

Table 56: Sharing on account of SHR, SFOC and Transit Loss (Rs. Crore)

Particulars	FY 2010-11	FY 2011-12		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Variable Charges as per accounts	4.21	10.61	31.82	31.09	26.25	26.36	28.48
Normative Variable Charges	3.19	9.16	27.43	26.22	21.28	20.16	21.50
Gains and Loss	1.03	1.45	4.39	4.87	4.97	6.20	6.98
50% sharing	0.51	0.72	2.19	2.44	2.49	3.10	3.49
Net entitlement of Variable Charges	3.70	9.88	29.63	28.65	23.77	23.26	24.99

**Revenue Side True Up
GLPL's Submission**

4.84 The summary of true up claimed by GLPL is as shown in the table below:

Table 57: Summary of True Up Claimed by GLPL for Unit 1 (Rs. Crore)

Particulars	FY 2011-12		FY 2012-13		FY 2013-14	
	As per RERC order	As per Audited Accounts /Norms	As per RERC order	As per Audited Accounts /Norms	As per RERC order	As per Audited Accounts /Norms
Cost side True Up						
Total Fixed Cost	58.53	61.94	129.68	136.19	128.52	131.69
Variable cost	32.53	10.35	77.86	31.09	85.77	26.36
Add: PLF Based Incentive						
Total Expenses	91.06	72.28	207.54	167.28	214.29	158.05
Extra Cost running By GLPL (A)	-18.78		-40.26		-56.24	
Revenue Side True up						
Revenue From electricity (fixed And Energy charges)	91.06	17.14	207.54	49.52	214.29	125.68
Add: PLF Based Incentive						

Particulars	FY 2011-12		FY 2012-13		FY 2013-14	
	As per RERC order	As per Audited Accounts /Norms	As per RERC order	As per Audited Accounts /Norms	As per RERC order	As per Audited Accounts /Norms
Total Revenue	91.06	17.14	207.54	49.52	214.29	125.68
Extra Amount billed to Discom by GLPL (B)	-73.92		-158.02		-88.61	
Total Amount Sought from Discom C=(A-B)	55.14		117.76		32.37	

Table 58: Summary of True Up Claimed by GLPL for Unit 2 (Rs. Crore)

Particulars	FY 2010-11		FY 2011-12		FY 2012-13		FY 2013-14	
	As per RERC order	As per Audited Accounts /Norms	As per RERC order	As per Audited Accounts /Norms	As per RERC order	As per Audited Accounts /Norms	As per RERC order	As per Audited Accounts /Norms
Cost side True Up								
Total Fixed Cost	8.64	8.45	147.46	136.14	142.96	138.01	139.60	129.49
Variable cost	3.84	3.32	71.54	31.82	78.85	26.25	87.49	28.49
Add: PLF Based Incentive								
Total Expenses	12.48	11.77	219.00	167.96	221.81	164.27	227.10	157.98
Extra Cost running By GLPL (A)	-0.71		-51.04		-57.54		-69.12	
Revenue Side True up								
Revenue From electricity (fixed And Energy charges)	12.48	7.64	219.00	58.04	221.81	41.17	227.10	49.19
Add: PLF Based Incentive								
Total Revenue	12.48	7.64	219.00	58.04	221.81	41.17	227.10	49.19
Extra Amount billed to Discom by GLPL (B)	-4.84		-160.96		-180.64		-177.91	
Total Amount Sought from Discom C=(A-B)	4.13		109.92		123.10		108.79	

Commission's Analysis

- 4.85 The Commission has gone through the submissions of the Petitioner. The Commission directed the Petitioner to submit the month wise energy billed and revenue billed to Discoms for each unit. The Petitioner in response submitted the same. The Commission observed that the revenue as submitted in the petition was in variance to the revenue submitted in the reply. The Commission therefore directed the Petitioner to reconcile the difference and submit the actual year wise revenue billed to the Discoms for both the Units. The Petitioner in response submitted the reconciliation statement.
- 4.86 The Commission has considered revenue earned from fixed charges, variable charges including FPA if any. Since no incentives have been earned, and FPA has not been claimed by the Petitioner, hence incentives and FPA has not been considered.
- 4.87 Based on component wise cost and revenue approved as discussed above, the summary of True Up for FY 2013-14 as approved by the Commission with respect to Petitioner's claim and computations of same are as shown below:

Table 59: Summary of True up approved for Unit 1 and Unit 2 (Rs. Crore)

Particulars	FY 2010-11	FY 2011-12		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Annual Fixed Charges Less P&G (Trued-Up)	8.39	63.76	145.43	137.84	144.97	133.72	139.34
Add: Sharing on account of IWC Loss/(Gain)	0.17	1.00	(0.08)	1.10	1.24	0.40	(0.49)
Add: Sharing on account of O&M Loss/(Gain)	(0.09)	(0.90)	(2.44)	(2.20)	(2.11)	(1.34)	(2.19)
Net Fixed Charge Entitlement	8.48	63.86	142.92	136.74	144.11	132.79	136.67
Net Entitlement of VC	3.70	9.88	29.63	28.65	23.77	23.26	24.99
Net Entitlement of ARR	12.18	73.74	172.54	165.40	167.87	156.05	161.66

Particulars	FY 2010-11	FY 2011-12		FY 2012-13		FY 2013-14	
	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2	Unit 1	Unit 2
Revenue from Sale of Power	7.64	17.14	58.04	49.52	41.17	125.68	49.19
Add: Non Tariff Income	0.01	1.07	1.38	0.30	0.34	0.41	0.31
Add: Sharing of Aux Loss/(gain)	0.04	0.59	1.22	1.61	1.10	1.88	1.10
Total Revenue	7.69	18.81	60.64	51.43	42.61	127.97	50.60
Gap/(Surplus)	4.49	54.93	111.90	113.97	125.26	28.08	111.06
Reduction in AFC	1.17	49.16	95.31	97.18	107.93	110.08	108.48
Net Gap/(Surplus)	3.32	5.77	16.59	16.79	17.33	(82.00)	2.58

4.88 Accordingly, the Commission has approved the cost and revenue true up for both the units as shown in the table below:

Table 60: Summary of Cost and Revenue True up approved for Unit 1 and Unit 2 (Rs. Crore)

Particulars	FY 2010-11		FY 2011-12				FY 2012-13				FY 2013-14			
	Unit 2		Unit 1		Unit 2		Unit 1		Unit 2		Unit 1		Unit 2	
	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Cost side True Up														
Fixed Cost less Non-Tariff Income	8.45	8.47	61.94	62.79	136.14	141.54	136.19	136.45	138.01	143.77	131.69	132.38	129.49	136.35
Variable cost	3.32	3.70	10.35	9.88	31.82	29.63	31.09	28.65	26.25	23.77	26.36	23.26	28.49	24.99
Less: Reduction in AFC due to non-achievement of Target Availability	0	1.17	0	49.16	0.00	95.31	0.00	97.18	0.00	107.93	0	110.08	0.00	108.48
TOTAL (A)	11.77	11.00	72.28	23.51	167.96	75.85	167.28	67.92	164.27	59.60	158.05	45.56	157.98	52.87
Revenue Side True up														
Revenue From sale of electricity	7.64	7.64	17.14	17.14	58.04	58.04	49.52	49.52	41.17	41.17	125.68	125.68	49.19	49.19
Revenue pertaining to previous years	0		0		0		0		0		0		0	

Particulars	FY 2010-11		FY 2011-12				FY 2012-13				FY 2013-14			
	Unit 2		Unit 1		Unit 2		Unit 1		Unit 2		Unit 1		Unit 2	
	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Sharing of Revenue loss due to higher auxiliary consumption	0	0.04	0	0.59	0	1.22	0	1.61	0	1.10	0	1.88	0	1.10
TOTAL (B)	7.64	7.68	17.14	17.74	58.04	59.26	49.52	51.13	41.17	42.27	125.68	127.56	49.19	50.29
Net Revenue Gap/(Surplus) (C=A-B)	4.13	3.32	55.14	5.77	109.92	16.59	117.76	16.79	123.10	17.33	32.37	(82.00)	108.79	2.58

4.89 The Commission has accordingly approved year wise revenue gap and surplus for both the units as shown above. The Commission allows GLPL to recover the approved revenue gap and refund the surplus amount from the Discoms in 6 monthly instalments from April 2018 onwards in the ratio of total energy purchased by them in the respective years.

SECTION 5

Determination of ARR and Tariff for GLPL Units 1 & 2 for FY 2017-18.

- 5.1 GLPL filed the petition for approval of ARR and Tariff for Giral Lignite Thermal Power Plant (2x125 MW) for FY 2017-18. The Commission in this section has determined the ARR and Tariff for the GLPL Unit 1 & 2 for FY 2017-18.
- 5.2 Unit 1 and Unit 2 were developed by RVUN itself. Unit 1 was handed over to GLPL w.e.f 01.01.2009 and had achieved COD on 18.10.2011. Unit 2 had achieved COD on 12.03.2011. Thereafter, vide the Resolution passed in the 241th meeting of the Board of Directors of RVUN held on 20.10.2014, it was resolved that approval of Board of Directors is accorded for transfer of Unit 2 of GLTPP to GLPL, a wholly owned subsidiary of RVUN on going concern basis along with all its assets and liabilities on book value at a consideration of Rs. 185 Crore in the form of Equity Shares to be issued by GLPL to RVUN towards the State Government's Equity contribution for setting up of Unit 2 of GLTPP. Such transfer of Unit 2 of GLTPP to GLPL was effective from 01.04.2015.
- 5.3 GLPL has filed the ARR and Tariff petition for the station as a whole. Considering that the COD of both the units have already occurred therefore, the Commission has determined the tariff for both the units 1 & 2 combined for FY 2017-18.
- 5.4 The ARR and Tariff Determination Process has been considered in two parts.
- A. Annual Fixed Charges
 - B. Variable Charges
- 5.5 The Annual Fixed Charges comprise of the following elements:
- (i) Operation and Maintenance (O&M) Expenses
 - (ii) Depreciation
 - (iii) Interest on Term Loans
 - (iv) Interest on Transitional Loans

- (v) Finance Charges
- (vi) Return on Equity
- (vii) Interest on Working Capital
- (viii) Insurance Charges
- (ix) Less: Non-tariff Income

5.6 Each of the annual fixed charges elements has been dealt with in the following paragraphs.

Operation and Maintenance Expenses

GLPL's Submission

5.7 GLPL submitted that the Operation & Maintenance Expenses for FY 2017-18 have been computed on the basis of norms prescribed under Regulation 47 of RERC Tariff Regulations, 2014.

5.8 The details of the O&M expenses as claimed in petition for FY 2017-18 are as shown in the Table below:

Table 61: O&M Expenses as per Petition for FY 2017-18 (Rs. Crore)

Particular	FY 2017-18
O&M Expense norms (Rs. per MW)	0.25
Total Capacity in MW	250.00
O&M expense (Rs. Crore)	62.74

5.9 As per Regulation 47(4) of the RERC Tariff Regulations, 2014, in case the process water is required to be transported over a distance of more than 5 km, then appropriate special O&M expenses, subject to prudence check by the Commission, shall be allowed in addition to the normative O&M expenses. Giral Power Plant is bringing the process water from Indira Gandhi Nahar Pariyojana, Mohangarh, Jaisalmer located at 170 km from the power plant, with 4 pumping stations at Mohangarh, Kanod, Aakal and Devikot.

Table 62: Location of Pumping Stations of GLTPP

Pumping Stations	Distance From Canal	Total (KM)
Mohangarh	located located at canal only, push water upto 40 KM (0Km-40KM)	40
Kanod	Length 35KM (40 KM to 75 KM), push water for 35 km.	75
Aakal	Length 30KM (75 KM to 105 KM), push water for 30 km.	105
Devikot	Length 65KM (105 KM to 170 KM) fill Plant, push water for 65 km.	170

- 5.10 The operation and maintenance of the complete pipeline and pumping stations is carried out by the staff of Giral Power Station and single contract man power. Thus, the expenditure is not accounted for separately for 50 km and 120 km. The expenditure is worked out on pro-rata basis, i.e., per km basis and is claimed for 120 km out of 170 km.
- 5.11 The electricity consumption charges of Mohangarh pumping station is not claimed as it is near the canal and the electricity consumption charges of Kanod pumping station are divided in the ratio of 10:25 as this station is pumping water for 35 km out of which 10 km falls within the range of first 50 km and rest 25 km is beyond the 50-km range. The electricity consumption charges of Aakal and Devikot pumping stations have been claimed in full.
- 5.12 Expenses other than electricity charges have been calculated considering per km pro rata basis, i.e., Total Expenses x120/170 (120 km=170 km minus 50 km).
- 5.13 The special O&M expenses claimed by GLPL are as shown in the Table below:

Table 63: Special O&M Expenses as estimated by the Petitioner (Rs. Crore)

Particular	FY 2017-18
Expense for Man-Power engaged for operation & maintenance for pumping stations	0.45
Expense for maintenance of Raw water pipe line	0.08
Expenses for Spares & Lubrications for R&M of pumping stations	0.06
Expenses for Electricity Consumption of pumping stations (Rs.)	0.39
Total Special O&M Expenses	0.98

5.14 The total O&M Expenses claimed by GLPL is as shown in the table below:

Table 64: Total O&M Expenses as estimated by the Petitioner (Rs. Crore)

Particular	FY 2017-18
O&M Expense norms (Rs. per MW)	0.25
Total Capacity in MW	250.00
O&M expense (Rs. Crore)	62.74
Special O&M Expenses (Rs. Crore)	0.98
Total O&M Expenses (Rs. Crore)	63.72

Commission's Analysis

5.15 Regulation 47(2) of the RERC Tariff Regulations, 2014 specifies the normative O&M expenses of Rs. 21.16 Lakh per MW for FY 2014-15 for lignite based generating stations. Further, Regulation 24(3) of the RERC Tariff Regulations, 2014 specifies that the normative O&M expenses allowed for FY 2014-15 shall be escalated at the rate of 5.85% per annum for subsequent each year of the Control Period.

5.16 The Commission has verified GLPL's computations of normative O&M expenses and found it to be in order and accordingly, same has been approved.

5.17 Regulation 47 (4) of RERC Tariff Regulations, 2014 specifies as under:

“(4) In case the process water is required to be transported over a distance of more than 50 km, then appropriate special O&M expenses, subject to the prudence check by the Commission, shall be allowed in addition to the above O&M expenses. It shall include O&M expenses related to pipe line beyond 50 km and water pumping station operation cost, and additional power consumption for such stations.”

5.18 The Commission observed that the Petitioner in its petition has not justified along with supporting documents special O&M expenses claimed for the station. The Commission therefore directed the Petitioner to submit the same. The Petitioner has however, not substantiated the same with required details. The Commission therefore, has therefore only approved the electricity consumption charges in the special O&M expenses.

5.19 The Commission directs the Petitioner to substantiate the special O&M expenses claimed for each year with the supporting documents in its True up Petition for the respective years, and the Commission may consider the same while carrying out the truing up, subject to prudence check.

5.20 The special O&M expenses and the total O&M expenses as approved by the Commission for FY 2017-18 is as shown in the Table below:

Table 65: O&M Expenses approved for FY 2017-18 (Rs. Crore)

Particular	Petitioner	Approved
Normative O&M Expenses	62.74	62.74
Special O&M Expenses	0.98	0.40
Total O&M Expenses	63.72	63.13

Capital Cost as on COD and Additional Capitalisation

GLPL's Submission

5.21 Unit 1 had achieved COD on 18.10.2011 and Unit 2 had achieved COD on 12.03.2011. Vide its order dated 12.08.2015 in Petition No. 483/14, the Commission had approved the Capital Cost as on COD for Unit 1 as Rs. 783.43 Crore as against Rs. 949.82 Crore claimed by GLPL. Vide its order dated 12.08.2015 in Petition No. 481/14, the Commission had approved

the Capital Cost as on COD of Unit 2 as Rs. 848.71 Crore as against Rs. 915.57 Crore claimed by GLPL.

- 5.22 For the purpose of the instant petition for approval of ARR and Tariff for FY 2017-18, the Capital Cost as on COD of the respective Units as approved by the Commission has been considered. Subsequently, the additional capitalisation from COD and reduction in GFA on account of transfer of assets and writing off of the assets for the respective Units till FY 2017-18 has been considered by GLPL.

Table 66: GFA as submitted by the Petitioner for Unit 1 (Rs. Crore)

Year	Opening Balance	Addition during the year	Written off during the year	Closing Balance
FY 2011-12	0	(COD:783.43) + (0.15 after COD till 31.03.2012)	0	783.46
FY 2012-13	783.46	0.3	6.82	776.94
FY 2013-14	776.94	0	0	776.94
FY 2014-15	776.94	0.79	0	777.73
FY 2015-16	777.73	0	0	777.73
FY 2016-17	777.73	0	0	777.73
FY 2017-18	777.73	0	0	777.73

Table 67: GFA as submitted by the Petitioner for Unit 2 (Rs. Crore)

Year	Opening Balance	Addition during the year	Written off during the year	Closing Balance
FY 2010-11	0	848.71	0	848.71
FY 2011-12	848.71	0.04	2.17	846.58
FY 2012-13	846.58	0	0	846.58
FY 2013-14	846.58	0	0	846.58
FY 2014-15	846.58	3.38	0	849.97
FY 2015-16	849.97	0	0	849.97
FY 2016-17	849.97	0	0	849.97
FY 2017-18	849.97	0	0	849.97

Commission's Analysis

- 5.23 The Commission vide its dated 12.08.2015 in Petition No. 483/14, the Commission had approved the Capital Cost as on COD for Unit 1 as Rs. 783.43 Crore. Vide its order dated 12.08.2015 in Petition No. 481/14, the Commission had approved the Capital Cost as on COD of Unit 2 as Rs. 848.71 Crore. For approving the ARR and Tariff for FY 2017-18, the Commission has considered the Capital Cost as on COD of the respective Units as approved in the respective orders and has also considered the transfer of assets/ deduction in assets as trued up by the Commission in this order for the period FY 2010-11 to FY 2013-14.
- 5.24 With regard to additional capitalisation submitted by the Petitioner for the period FY 2014-15 to FY 2017-18, the Commission in line with its earlier approach has not approved any additional capitalisation at this stage. The same shall be considered while carrying out the truing up for the respective years in accordance with the provisions of Regulations, subject to prudence check.
- 5.25 The Opening GFA, addition during the year and closing GFA considered by the Commission for ARR and Tariff Determination for FY 2017-18 is as shown below.

Table 68: GFA as approved by the Commission for Unit 1 and 2 (Rs. Crore)

S.No.	Assets Group	Gross Fixed Assets			
		At the beginning of the year	Additions during the year	Adjust. & Deductions	At the end of the year
1	Land & Land Rights	1.33	0.00	0.00	1.33
2	Building & civil Works of Power Plants	90.63	0.00	0.00	90.63
3	Hydraulic Works	98.80	0.00	0.00	98.80
4	Other Civil Works	0.34	0.00	0.00	0.34
5	Plant & Machinery	1414.64	0.00	0.00	1414.64
6	Lines & cable Network	17.04	0.00	0.00	17.04
7	Vehicles	0.17	0.00	0.00	0.17

S.No.	Assets Group	Gross Fixed Assets			
		At the beginning of the year	Additions during the year	Adjust. & Deductions	At the end of the year
8	Furniture & Fixtures	0.39	0.00	0.00	0.39
9	Office Equipment	0.18	0.00	0.00	0.18
10	Capital Spare	0.00	0.00	0.00	0.00
Total		1623.52	0.00	0.00	1623.52

Depreciation

GLPL's Submission

5.26 The depreciation claimed by GLPL is as shown in the table below.

Table 69: Depreciation as claimed by the Petitioner (Rs. Crore)

Particular	FY 2017-18
Depreciation	84.09

Commission's Analysis

5.27 The Commission has approved the depreciation for FY 2017-18 in accordance with the provisions of RERC Tariff Regulations, 2014.

5.28 As already discussed, the Commission has not considered any additional capitalisation after 1.4.2014. The Commission may consider the additional capitalisation for FY 2017-18, if any, during the truing up exercise in accordance with the Regulations.

5.29 Accordingly, the depreciation approved by the Commission for FY 2017-18 is as shown in the Table below:

Table 70: Depreciation approved for FY 2017-18 (Rs. Crore)

Assets Group	Rate of Depreciation	Gross Fixed Assets			Provision for Depreciation
		At the beginning of the year	Additions during the year	At the end of the year	Additions during the year
Land & Land Rights	0.00%	1.33	0.00	1.33	0.00
Building & civil Works of Power Plants	3.34%	90.63	0.00	90.63	3.03
Hydraulic Works	5.28%	98.80	0.00	98.80	5.22
Other Civil Works	3.34%	0.34	0.00	0.34	0.01
Plant & Machinery	5.28%	1414.64	0.00	1414.64	74.69
Lines & cable Network	5.28%	17.04	0.00	17.04	0.90
Vehicles	9.50%	0.17	0.00	0.17	0.02
Furniture & Fixtures	6.33%	0.39	0.00	0.39	0.02
Office Equipment	6.33%	0.18	0.00	0.18	0.01
Capital Spare	5.28%	0.00	0.00	0.00	0.00
Total		1623.52	0.00	1623.52	83.90

Interest on Term Loan

GLPL's Submission

5.30 GLPL submitted that the term loan and finance charges have been worked out as per Regulation 21 of RERC Tariff Regulations 2014. The normative loan approved by the Commission in its orders dated 12.08.2015 for Unit 1 and Unit 2 and addition/ reduction in loan corresponding to the capitalisation/write off of gross fixed assets in the respective years has been considered. The loan repayment has been considered equal to the amount of depreciation for the respective year. Interest on term loan and finance charges claimed by the Petitioner is as show in the table below.

Table 71: Interest on Term Loan and Finance charges claimed by GLPL (Rs. Crore)

Particular	FY 2017-18
	Unit 1 and 2
As per petition	96.42

Commission's Analysis

5.31 The Commission in its order dated 07.12.2016 approved the normative loan for GLPL Unit 1 & 2. As per RERC Tariff Regulation, 2014 the repayment of loan is equal to the depreciation approved by the Commission for the respective year. For arriving at the Opening Loan balance for FY 2017-18 the Commission has computed the outstanding loan as on 01.04.2017 for both the units considering the opening loan as on 1.4.2014, year-wise depreciation approved by the Commission and deduction in loan towards assets transferred/deducted approved by the Commission in this order. The debt: equity ratio while allowing the Transfer of assets/ deduction in assets has been considered the same as taken by the Petitioner in the Petition. The opening loan balance as computed by the Commission as on 1.4.2017 is given in Table below:

Table 72: Opening loan balance for Unit 1 and 2

Particulars	FY 2017-18
Opening Balance	811.12
Receipts during the Year	0.00
Repayment	83.90
Closing Balance	727.22

5.32 As per Regulation 21(5) of the RERC Tariff Regulations, 2014, the interest rate for computing interest on loan shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year. Accordingly, Commission, for actual loans has considered the interest rate as applicable at the beginning of FY 2017-18.

5.33 The Commission in its data gap asked GLPL to submit the basis of calculating the finance charge for FY 2017-18. GLPL submitted that finance charges are claimed on the basis of actually paid to the government as levy/commission against rendering guarantee on working capital loan specific to each station. The Commission as discussed in the true up section has considered the finance charges as claimed by GLPL. The interest on loan as determined shall be subject to truing up at the time of final true up exercise for FY 2017-18.

Table 73: Interest and Finance Charges as approved by the Commission for FY 2017-18 (Rs. Crore)

Particulars	FY 2017-18	
	Claimed	Approved
Opening Balance	814.81	811.12
Receipts during the Year	0.00	0.00
Repayment made during the Year	84.09	83.90
Closing Balance	730.72	727.22
Weighted Average Interest Rate	12.41%	12.40%
Interest	95.87	95.42
Finance Charges	0.55	0.55
Interest and Finance Charges	96.42	95.97

Recovery of ARR and Tariff Petition Fees

GLPL's Submission

5.34 The Petitioner submitted that the Commission vide its order dated 10.03.2008 has allowed to pass through the fees levied for filing of ARR & Tariff Petition as expenses in the ARR.

5.35 The ARR and Tariff Petition fee claimed by the Petitioner is as shown in the table.

Table 74: Recovery of ARR and Tariff Petition Fees claimed by GLPL (Rs. Crore)

Particular	FY 2017-18
	Unit 1 and 2
As per petition	0.13

Commission's Analysis:

5.36 The Commission has approved the recovery of ARR and Tariff Petition fees for FY 2017-18 as shown in the table below:

Table 75: Recovery of ARR and Tariff Petition fees approved by the Commission (Rs. Crore)

Particular	FY 2017-18
	Unit 1 and 2
As per petition	0.13
Approved	0.13

Insurance Charges

Petitioner's Submission

5.37 The Petitioner submitted that the insurance charges have been claimed as per the actual for FY 2015-16 and for the year FY 2016-17 and FY 2017-18 the insurance charges are estimated based on actual insurance charges paid in preceding year with an escalation of 5% YOY (Year on Year). The insurance charge claimed by the Petitioner for FY 2017-18 is as shown in the table below:

Table 76: Insurance Charges Claimed by GLPL (Rs. Crore)

Particular	FY 2017-18
	Unit 1 and 2
As per petition	1.37

Commission's Analysis:

5.38 The Commission with regard to insurance charges, through its data gap directed the Petitioner to submit the supporting documents for the insurance charges claimed as actual for FY 2015-16 for Unit 1 & 2 and the rationale for considering 5% escalation year on year. The Petitioner in the reply of additional data gaps submitted the total insurance amount for FY 2016-17 as Rs. 1.15 Crore. The Commission while approving the insurance charges for FY 2017-18 has considered the actual insurance charges as claimed by the Petitioner for FY 2016-17. The Commission has approved

the same insurance charges as submitted for FY 2016-17. The Insurance charges approved by the Commission for the FY 2017-18 are as shown in the table below.

Table 77: Insurance charges approved by Commission (Rs. Crore)

Particular	FY 2017-18
	Unit 1 and 2
As per petition	1.37
Approved	1.15

Interest on Working Capital

GLPL's Submission

- 5.39 GLPL submitted that the requirement for working capital loan has been computed on the basis of Regulation 27 of RERC Tariff Regulations, 2014 and the rate of interest on Working Capital Loan has been taken equal to 250 basis points higher than the average Base Rate of State Bank of India prevalent during first six months of the previous year which works out to be 11.80%.
- 5.40 The details of interest on working capital as claimed in petition for FY 2017-18 has been provided in the table below:

Table 78: Interest on Working Capital as per petition for FY 2017-18 (Rs. Crore)

Particular	Unit 1 and 2
As per petition	11.55

Commission's Analysis

- 5.41 Regulation 27(2) of the RERC Tariff Regulations, 2014 specifies that the rate of interest on working capital to be computed shall be on normative basis and shall be 250 basis points higher from SBI base rate prevalent during first six months of the year previous to the relevant year. Accordingly, for working out interest on working capital, weighted rate of interest has been

considered as per admissible rates during the previous year. The same works out to 11.80% p.a. which has been used for calculating interest on working capital. The computation of the bank rate is as shown in the Table below:

Table 79: Computations of Bank Rate as considered by the Commission for FY 2017-18

Month	No. of Days	SBI Base Rate	250 Basis Point	Approved Interest Rate
Apr-16	30	9.30%	2.50%	11.80%
May-16	31	9.30%		
June-16	30	9.30%		
July-16	31	9.30%		
Aug-16	31	9.30%		
Sept-16	30	9.30%		

5.42 Further, the Commission has worked out the working capital requirement in accordance with Regulation 27 of the RERC Tariff Regulations, 2014. The interest on working capital as approved by the Commission for FY 2017-18 has been provided in the table below:

Table 80: Approved Interest on working Capital (Rs. Crore)

Particulars	Norms considered	FY 2017-18 (Unit 1&2)
		Approved by the Commission
Lignite cost (pit head)	0.5 months	8.76
Lime Cost	1.5 months	3.99
Sec fuel oil	2 months	0.88
O& M expenses	1 month	5.26
Maintenance spares	20 % of O&M	12.63
Receivables	1.5 months	65.65
Working Capital Loan Requirement		97.17
Rate of Interest		11.80%
Interest on working Capital		11.47

Return on Equity

GLPL's Submission

5.43 The Petitioner submitted that the Return on Equity for GLPL Unit 1 & 2 has been computed as per the Regulation 20 of RERC Tariff Regulations, 2014 and accordingly the base rate for the computation of RoE has been taken as 15.5% for FY 2017-18. The RoE claimed by the Petitioner is as shown in the table below.

Table 81: Return on Equity Claimed by GLPL (Rs. Crore)

Particular	FY 2017-18
	Unit 1 and 2
As per petition	50.80

Commission's Analysis:

5.44 The Government of Rajasthan in its order dated 21.03.2016 revised the RoE to 15.5% from FY 2015-16 till FY 2017-18. Hence the Commission has taken the rate of 15.5% for FY 2017-18. RoE approved by the Commission for FY 2017-18 is as shown in the Table below:

Table 82: RoE approved by the Commission for Unit 1 and 2 (Rs. Crore)

Particulars	FY 2017-18	
	GLPL Petition	Approved
Opening Equity	327.73	327.73
Addition	0.00	0.00
Closing Equity	327.73	327.73
Rate of RoE	15.50%	15.50%
RoE	50.80	50.80

Non-Tariff Income

GLPL's Submission

5.45 The Petitioner submitted that for Unit 1 and 2 the main heads of accounts of Non-Tariff income are sale of scrap, income from rent on land/buildings

and miscellaneous receipts (rebates etc.) The Non-Tariff income estimated by the Petitioner is as shown in the table below.

Table 83: Non-Tariff Income Claimed by GLPL (Rs. Crore)

Particular	FY 2017-18
	Unit 1 and 2
As per petition	0.35

Commission's Analysis:

5.46 The Commission observed that the Petitioner has considered actual non tariff income for FY 2015-16 as per audited accounts and for FY 2017-18 the Non-Tariff income has been projected by way escalation of 5% per annum over FY 2015-16.

5.47 The Non-Tariff income approved by the Commission for GLPL Unit 1&2 for FY 2017-18 is as show in the table below:

Table 84: Non-Tariff Income Approved by the Commission For FY 2017-18 (Rs. Crore)

Particular	FY 2017-18
	Unit 1and 2
As per petition	0.35
Approved	0.35

Annual Fixed Charge for FY 2017-18

5.48 Based on the above analysis, the approved Fixed Charges for GLPL for FY 2017-18 are as shown in the Table below:

Table 85: Approved Annual Fixed Charges for FY 2017-18 (Rs. Crore)

Parameters	FY 2017-18	
	Unit 1 and 2	
	Petition	Approved
Interest on Term Loans + Finance Charges	96.42	95.97
Depreciation	84.09	83.90

Parameters	FY 2017-18	
	Unit 1 and 2	
	Petition	Approved
O & M Expenses	63.72	63.13
Return on Equity	50.80	50.80
Interest on WC	11.55	11.47
Recovery of ARR & Tariff Petition fees	0.13	0.13
Insurance Charges	1.37	1.15
Gross Fixed Charges	308.07	306.53
Non-Tariff Income	0.35	0.35
Net Fixed Cost (i.e. Capacity Charges)	307.72	306.18

Determination of Variable Charges for FY 2017-18

GLPL's Submission

Petitioner's Submission

5.49 The Petitioner in its Petition submitted that the Commission in its order dated 12.08.2015 approved the SHR for Unit 1 of 2449.50 kCal/kWh. The Petitioner has claimed the normative SHR of 2449.50 kCal//kWh. Further, auxiliary consumption has been considered as 11.50% for energy computations.

Commission's Analysis:

5.50 The Commission has approved the Variable Charges for FY 2017-18 on the basis of Following:

- a) The Commission has sought the actual details regarding landed price, of lignite, GCV of lignite, landed price of limestone, landed price of secondary fuel oil, GCV secondary fuel oil, moisture content in lignite and sulphur content in lignite for the months of December 2016 to February 2017. The Petitioner however submitted the month wise details for FY 2014-15 and FY 2015-16.
- b) For determining the variable charges for FY 2017-18 the Commission has considered the actual details regarding GCV of lignite and sulphur

content in lignite for the period January 2016 to March 2016. GCV of secondary fuel oil has been considered on the basis of actual GCV for the month of October 2015 to December 2015.

- c) For determining the variable charges for FY 2017-18 the Commission has considered the actual details regarding landed price, of lignite, landed price of limestone, landed price of secondary fuel oil.
- d) With regards to the SHR the Commission has considered SHR as per Regulation 45(3)(b) and Annexure 2 of the RERC Tariff Regulations, 2014, as extracted below:

“45(3) Gross Station Heat Rate –

(a)

(b) Gross Station Heat Rate for new Thermal Generating stations/units achieving COD on or after 01.04.2009 till 31.03.2014:

Coal and lignite based thermal power generating stations

= 1.045 X Design Heat Rate (kcal/kWh).

Where the Design Heat Rate of a Unit means the Unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure:

Provided further that where Unit heat rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the Unit design heat rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency:

Provided further that where Unit heat rate has not been guaranteed and turbine cycle heat rate and boiler efficiency guaranteed by the supplier is also not available the design heat rate shall not exceed the limit as specified under Annexure- 2

In case of lignite-fired generating stations, maximum design heat rate shall be increased using factor for moisture content as given below.

(i) For lignite having 50% moisture: Multiplying factor of 1.10

(ii) For lignite having 40% moisture: Multiplying factor of 1.07

(iii) For lignite having 30% moisture: Multiplying factor of 1.04

(iv) For other values of moisture content, multiplying factor shall be pro-rated for moisture content between 30-40 and 40-50 depending upon the rated values of multiplying factor for the respective range given under sub-sub-regulations (i) to (iii) above.

(v) Moisture content shall be determined at the stage of firing.
 Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14.”

e) Regarding the design heat rate, the Commission is of the view that design parameters of a plant cannot be changed from time to time and only the moisture content can have its impact on the performance. Therefore, as the Commission vide its order dated 13.11.2009 has already approved the design heat rate of 2300 Kcal/kWh, the same has been considered by the Commission in this order also and thereafter the moisture correction factor has been taken in accordance with RERC Tariff Regulations, 2014 for computing the Station Heat Rate to be allowed. Further, the APTEL in its Judgment dated 15.12.2011 under Appeal No. 182 of 2010 filed by the Petitioner against the Commission’s order dated 13.11.2009 ruled as under:

“14.

(iii) Station Heat Rate: We are in agreement with the findings of the State Commission that the Design Rate is subject to the ceiling of 2300 kCal/kWh as specified under Regulation 26 (ii)(B)(a) of the Central Commission’s Regulation, 2009. However, the Station Heat Rate has to be corrected for moisture content in coal according to Regulation 43(3)(b) as per the fourth proviso to Appendix 2.”

f) Therefore, the Commission in this order has considered the design heat rate of 2300 kCal/kWh as per RERC Tariff Regulations, 2014. Accordingly, the SHR approved by the Commission is as shown in the table below.

Table 86: Normative SHR as approved by the Commission for FY 2017-18

Particulars	Units	Approved
Design Heat Rate (DHR)	kCal/kWh	2300.00
Allowable Design Heat Rate	kCal/kWh	2300.00
SHR (1.045*Allowable DHR)	kCal/kWh	2403.50

g) With regards to auxiliary consumption and secondary fuel consumption for FY 2017-18 the Commission has considered auxiliary consumption of 11.50 % and secondary fuel oil consumption of 1 ml/kWh as per the provisions of RERC Tariff Regulations, 2014.

h) The Variable Charges determined by the Commission for FY 2017-18 is as under:

Table 87: Approved Variable Charges for FY 2017-18 (Rs. Crore)

Particulars	Units	FY 2017-18	
		Unit 1 and 2	
		Petitioned	Approved
Target Availability	%	80.00%	80.00%
Gross Station Heat Rate	kCal/kWh	2449.50	2403.50
Auxiliary Consumption	%	11.50%	11.50%
Average Sulphur Content in Lignite	%	4.20%	4.80%
Weighted average GCV of Lignite	kCal/kg	2890.00	3007.00
Weighted average GCV of Oil	kCal/ltr.	10283.00	8895.14
Secondary fuel oil consumption	ml/kWh	1.00	1.00
Specific Lignite consumption	kg/kWh	0.84	0.80
Lime stone consumption	kg/kWh	0.199	0.214
Price of Lignite	Rs./MT	1341.67	1334.15
Price of Lime stone	Rs./MT	749.68	752.91
Price of Oil	Rs./kL	33434.87	26634.40
Cost of Lignite per Unit	Rs./kWh	1.280	1.200
Cost of Lime stone per Unit	Rs./kWh	0.168	0.182
Cost of Oil per Unit	Rs./kWh	0.038	0.030
Rate of Energy Charge	Rs./kWh	1.485	1.413

5.51 The Commission accordingly approves the tariff for 2017-18 for GLPL Unit 1 & 2 as follows:

Table 88: Approved Tariff for FY 2017-18

Particulars	Unit 1 and 2	
	Petitioned	Approved
Fixed Charges (Rs. Crore)	307.72	306.18
Fixed Charges (Rs. /kWh)	1.985	1.975
Variable Charges (Rs. Crore)	230.33	219.04
Variable Charges(Rs/kWh)	1.485	1.413
Total Tariff	3.470	3.387

5.52 The Commission directs GLPL to bill/adjust the difference in tariff approved by the Commission in this order and the tariff charged by GLPL as provisionally approved by the Commission for the period.

5.53 The Copy of this order may be sent to the Petitioner, Respondents, Objectors, CEA and Government of Rajasthan.

(S.C. Dinkar)
Member

(R.P. Barwar)
Member

(Vishvanath Hiremath)
Chairman

Annexure-1

Section/ Para/ Annexure	Particulars	Page No.
Section 1	General	01
Section 2	Summary of Aggregate Revenue Requirement (ARR) and Tariff determination process.	03-04
Section 3	Summary of objections/ comments/ suggestions received from stakeholders and GLPL's response on the instant Petition	05-22
Section 4	Truing up of Unit 1 from FY 2011-12 to FY 2013-14 and of Unit 2 from FY 2010-11 to FY 2013-14.	23-70
Section 5	ARR and Tariff Determination of GLTPP for FY 2017-18	71-91
Annexure 1	Index	92