

**BEFORE THE  
HON'BLE ELECTRICITY REGULATORY COMMISSION  
VIDYUT BHAWAN - II, PATNA**

**Petition  
For  
True-Up of FY 2016-17 and FY 2017-18,  
And  
Determination of Annual Revenue Requirement (ARR) for FY 2025-26  
  
For  
Bihar State Hydroelectric Power Corporation Ltd.  
(BHPC)  
Patna**



2nd Floor, Sone Bhawan,  
Birchand Patel Marg,  
Patna - 800001  
**August \_\_, 2025**

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# 1. Background

## 1.1. Brief

Bihar State Hydroelectric Power Corporation Limited (BHPC) is a company wholly owned by the Government of Bihar and registered under the Companies Act 1956. It is responsible for exploring all possibilities of hydroelectric potential and its development in the Bihar state.

## 1.2. BHPC Responsibility

It is engaged in following activities to explore hydro potential.

- To plan, promote, organize, co-ordinate, finance, establish, develop and engage in the business of setting up electrical power projects particularly hydroelectric power in all its aspect including planning, investigation, research, design and preparation of preliminary feasibility and detailed project report, construction, generation, operation and maintenance of Hydroelectric Power stations and other projects, transmission, distribution and sale of power and to carry on all activities connected with power projects such as manufacture, inspection, supply, erection commissioning, running and maintaining the hydro power projects.
- To carry out the business of purchasing, selling, importing, producing, Trading, manufacturing and otherwise dealing in all aspects of planning, investigation, research, design and preparation of preliminary feasibility and detailed project report, construction, generation, operation and maintenance of Hydroelectric Power stations and other projects, transmission, distribution and sale of power, hydroelectric power development, ancillary and other allied industries and for that purpose to install, operate and manage all necessary plants establishments and works.
- To undertake and render services of all and every kind of buying, selling, exchanging, alternating, importing, exporting, producing and trading any equipment for establishing Hydroelectric Power and other projects required for civil, commercial and military purposes.
- To operate and maintain economically and efficiently the generating stations, tie lines, sub stations and main transmission lines, assigned to it by the State Government in accordance with the provision of section 39 of the Electricity (Supply) Act, 1948 and Electricity Act 2003.
- To take-up connection with power projects multipurpose program like construction of embankments, dams, canals, sub canals, distributaries, reservoirs, facilities, drinking water and take all necessary steps for soil conservation, afforestation and rehabilitation of displaced persons.

### **1.3. Bihar Electricity Regulatory Commission**

Bihar Electricity Regulatory Commission (BERC) has been established by the Government of Bihar under Section 17 of the Electricity Regulatory Commissions Act, 1998 vide Government of Bihar Notification no. 1284 dated 15<sup>th</sup> April 2002. And the first proviso of Section 82 (1) which ensured the continuity of the Commission along with that of State Electricity Regulatory Commissions under Section 17 of Electricity Regulatory Commissions Act, 1998, and functioning as such immediately before the appointed date shall be the State Commission for the purpose of the Electricity Act, 2003.

Functions of BERC:

The Hon'ble State Commission, having the powers under Section 61 and 62 of the Electricity Act 2003 and the powers entitled under Bihar State Electricity Commission (Determination of Tariff) Regulation 2007 and amendments issued from time to time shall discharge the following functions, namely:

- a) Determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within that State: Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
- b) Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
- c) Facilitate intra-state transmission and wheeling of electricity;
- d) Issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
- e) Promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution license;
- f) Adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration;
- g) Levy fee for the purposes of this Act;
- h) Specify State Grid Code consistent with the Indian Electricity Grid Code specified with regard to grid standards;
- i) Specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- j) Fix the trading margin in the intra-State trading of electricity, if considered, necessary; and discharge such other functions as may be assigned to it under this Act.

- k) The State Commission shall advise the State Government on all or any of the following matters, namely:
1. Promotion of competition, efficiency and economy in activities of the electricity industry;
  2. Promotion of investment in electricity industry;
  3. Reorganization and restructuring of electricity industry in the State;
  4. Matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by State Government.

#### 1.4. Context of Current Petition

The Hon'ble Commission has conducted the True-Up up to FY 2015-16 for 13 plants of BHPC vide Order dated 01.10.2024. Accordingly, the Petitioner has prepared the present Petition for the True-Up of FY 2016-17 and FY 2017-18, along with the Aggregate Revenue Requirement (ARR) for FY 2025-26, in respect of its 13 plants. The details of all the 13 plants depicting with installed capacity, date of commissioning are as follows:

*Table 1: BHPC Plants Details*

S. No.	Plant name	Installed Cap (MW)	Date of Commissioning (CoD)
1	Agnoor	1	Unit 1- June-2006 Unit 2- June-2006
2	Barun	3.3	Unit 1- June-96 Unit 2- Mar-96
3	Dehri-on-Sone	6.6	Unit 1- Jan-93 Unit 2- Mar-93 Unit 3- Aug-93 Unit 4- Apr-93
4	Dhelabagh	1	Unit 1- Aug-2006 Unit 2- Aug-2006
5	Jainagara	1	Unit 1- Dec-2008 Unit 2- Dec-2008
6	Koshi-Kataiya	19.2	1970-75
7	Nasriganj	1	Unit 1- July-2007 Unit 2- July-2007
8	Triveni	3	Feb-09
9	Valmikinagar	15	Unit 1- Sep-95 Unit 2- Jun-96 Unit 3- Nov-97
10	Shirkhinda	0.70	January 2010

S. No.	Plant name	Installed Cap (MW)	Date of Commissioning (CoD)
11	Sebari	1	September 2010
12	Arwal	0.50	January 2012
13	Belsar	1	July 2012
	<b>Total</b>	<b>54.3</b>	

BHPC, along with this Petition is submitting the Tariff Formats (Annexure A of the Petition) with relevant data and information to the extent applicable and would make available any further information/additional data required by the Hon'ble Commission during the course of the proceedings.

#### **1.5. Regulatory Provisions for filling of True-up Petition**

Regulation 22 (4) of BERC (Terms and conditions for determination of Tariff) Regulations, 2007 deals with the True-up and review mechanism and in this regard provides as follows-

*"The Commission shall undertake a review along with next Tariff Order, of the expenses and revenues approved by the Commission in the current year Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / pre-actuals of the sale of electricity, income, and expenditure for the relevant year and permit necessary adjustments/changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.*

*After audited accounts of the year are made available, the Commission shall undertake a similar exercise as in sub-clause (1) above based on the final actual figures as per the audited accounts. This exercise based on the audited accounts shall be called 'Truing up'. The truing up exercise for any year shall not ordinarily be considered after more than one-year gap after 'Review'."*

- I. It is evident from the above that the maximum time period allowed for the truing up exercise is one year from the review exercise. Herein the petitioner would like to request the Hon'ble Commission to take note of the following in admitting this True-up petition.
- II. While the Regulations as mentioned above allow for a maximum time period, they also mention that 'The truing up exercise for any year shall not ordinarily be considered after more than one-year gap after 'Review'. It is an agreed position that BHPC was not able to file a Review or True-up or Tariff petition for want of Audited Accounts which were not available for a significant period of time. The petitioner would hence like to submit that it was not an ordinary situation and the same could only be rectified very recently with the initiation of audit process of the Company's Accounts. As soon as Audited Accounts were available for the

years FY 2016-17 and FY 2017-18 the petitioner is filing the True-up petition for the stated period.

- III. In light of the above, the petitioner requests the Hon'ble Commission to condone the delay in filling and admit the instant petition.

#### **1.6. Prayers to the Hon'ble Commission**

In the light of the submission here made, BHPC pleads before the Hon'ble Commission to:

- Condone the delay in filling of the instant petition and examine the proposal submitted by the Petitioner for a favorable dispensation;
- Pass suitable orders with respect to the True Up of FY 2016-17 and FY 2017-18, Determination of ARR for FY 2025-26 along with Tariff for the FY 2025-26 as submitted in this petition.
- Condone any inadvertent omissions, errors, shortcomings and permit BHPC to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date; and
- Pass such Order as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.



# **TRUE-UP for FY 2016-17 and FY 2017-18**

## 2. True-Up for FY 2016-17 and FY 2017-18

### 2.1. Introduction

BHPC has received the tariff of RS 2.38 per kWh vide Tariff Order passed dated 01.10.2024 in Case No. 23 of 2022 for all the 13 plants namely Valmiki Nagar, Dehri, Barun, Kosi, Dhelabagh, Agnoor, Nasriganj, Jainagara, Triveni, Shirkhinda, Sebari, Arwal and Belsar.

The following considerations have been made by the Petitioner for the True-Up of FY 2016-17 and FY 2017-18:

- I. Opening Values of GFA, Equity, Loan, and Grant for the 13 plants namely Valmiki Nagar, Dehri, Barun, Kosi, Dhelabagh, Agnoor, Nasriganj, Jainagara Triveni, Shirkhinda, Sebari, Arwal and Belsar have been taken as per approved values by the Hon'ble Commission in the True-up order for FY 2015-16 (dated 01.10.2024).
- II. Capitalization (GFA additions) is considered as per audited accounts of relevant years.
- III. O&M is considered as per audited accounts of relevant years.

### 2.2. Regulatory Context

As per Regulation 22 – 'Review and Truing up' of Tariff Regulations, 2007, The true-up exercise has to be undertaken by the Hon'ble Commission based on final actual figures as per the audited accounts. The relevant extracts are reproduced hereunder:

*"(1) The Commission shall undertake a review along with next Tariff Order, of the expenses and revenues approved by the Commission in the current year Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / pre-actuals of the sale of electricity, income and expenditure for the relevant year and permit necessary adjustments / changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.*

*(2) After audited accounts of the year are made available, the Commission shall undertake a similar exercise as in sub-clause (1) above based on the final actual figures as per the audited accounts. This exercise based on the audited accounts shall be called 'Truing up'. The truing up exercise for any year shall not ordinarily be considered after more than one year gap after 'Review'.*

*(3) The Revenue gap of next year shall be adjusted as a result of Review and Truing up exercises.*

*(4) While approving adjustments towards revenue / expenses in future years, arising out of Review / Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses / revenues, Carrying costs shall be limited to the interest rate approved for working capital borrowings.*

*(5) For any revision of approvals, the licensee shall satisfy the Commission that the revision is necessary for the reasons beyond its control. In case additional supply is required to be made to any particular category, the licensee may, at any time during the year, make an application to the Commission for its approval, duly explaining the need for such change of consumer mix and additional supply of power and also indicating the manner in which the licensee proposes to meet*

*the cost for such change of consumer mix and additional supply of power. The Commission may consider according approval to such proposals provided the cost of additional supply of power is met by the beneficiary category."*

Accordingly, the Petitioner has been computed based on various items of ARR which are in accordance with the Regulation 54 of Tariff Regulation, 2007:

*"The two-part tariff for sale of electricity from a hydro power generating station shall comprise of recovery of capacity charges and primary energy charges:*

*(i) Capacity charges: The capacity charges shall be computed in accordance with the following formula: Capacity charges = (Annual fixed charge – Primary Energy charge)*

*Note: Recovery through primary energy charge shall not be more than Annual Fixed Charge.*

*(ii) Annual Fixed Charges: Annual Fixed charges shall consist of;*

*(a) Interest on capital*

*(b) Depreciation, including Advance Against Depreciation*

*(c) Return on equity*

*(d) Operation and Maintenance expenses; and*

*(e) Interest on working capital"*

The computation of the claim against each item of the ARR is explained in the subsequent sections.

### **2.3. Sale of Infirm Power**

According to Regulation 52 of Tariff Regulations, 2007:

*"Any revenue earned by the integrated utility / generating company from sale of infirm power shall be taken as reduction in capital cost and shall not be treated as revenue. The rate for infirm power shall be the same as the primary energy rate of the generating station."*

The petitioner submits that no records indicating infirm power is available. As per the provision, Hon'ble Commission may subtract the sale of infirm power from revenue from the sale of power.

### **2.4. Return on Equity (RoE)**

According to the Regulation 53 of Tariff Regulation, 2007, debt to equity ratio should be treated as follow:

*"(1) In case of all generating stations, the debt – equity ratio as on the date of commercial operation shall be 70:30 for determination of tariffs, provided that the commission may in*

*appropriate cases consider equity higher than 30% for purpose of determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that the deployment of equity more than 30% was in the interest of general public. Provided that*

*(i) in case of a generating station, the actual equity employed is less than 30%, the actual debt and equity employed shall be taken for determination of tariff*

*(ii) in case of existing projects the actual debt: equity ratio shall be used for tariff determination. However any expansion shall be governed by clause (1) above.*

*(2) The debt and equity amount arrived at in accordance with clause (1) shall be used for calculation of interest on loan, return on equity, Advance Against Depreciation and foreign exchange rate variation."*

Accordingly, the Petitioner submits that no equity was infused during FY 2016-17 and FY 2017-18. Hence, the Gross Fixed Asset (GFA) additions for the respective years have been entirely funded through debt, computed as 100% of the GFA additions during the year, less GFA deletions during the year, and less Grants during the year. As there were no GFA deletions or Grants in FY 2016-17 and FY 2017-18, the funding is fully considered as debt, as reflected in the tables below:

*Table 2: Equity & Debt addition for FY 2016-17*

*(Amount in Crore)*

SI No.	Plant	Net GFA (excluding Grant)	Addition to Equity	Addition to Debt
1	Agnoor	8.10	-	-
2	Dhelabagh	10.31	-	-
3	Jainagara	3.81	-	-
4	Nasriganj	3.94	-	-
5	Triveni	16.33	-	-
6	Valmikinagar	57.28	-	-
7	Dehri-on-sone	40.32	-	0.25
8	Barun	15.02	-	-
9	Koshikataiya	24.57	-	-
10	Shirkhinda	4.61	-	-
11	Sebari	7.11	-	-
12	Arwal	3.28	-	-
13	Belsar	4.61	-	-
14	<b>Total</b>	<b>199.29</b>	<b>-</b>	<b>0.25</b>

Table 3: Equity & Debt addition for FY 2017-18

(Amount in Crore)

Sl No.	Plant	Net GFA (excluding Grant)	Addition to Equity	Addition to Debt
1	Agnoor	8.10	-	-
2	Dhelabagh	10.31	-	-
3	Jainagara	3.81	-	-
4	Nasriganj	3.94	-	-
5	Triveni	16.33	-	-
6	Valmikinagar	57.28	-	-
7	Dehri-on-sone	40.32	-	0.0018
8	Barun	15.02	-	0.0012
9	Koshikataiya	24.57	-	-
10	Shirkhinda	4.61	-	-
11	Sebari	7.11	-	-
12	Arwal	3.28	-	-
13	Belsar	4.61	-	-
<b>14</b>	<b>Total</b>	<b>199.29</b>	<b>-</b>	<b>0.0030</b>

According to Regulation 55(3) of Tariff Regulation, 2007, Return on Equity shall be computed as follows:

*“(a) The return on equity shall be computed on the equity base determined in accordance with Regulation 53 @ 14% per annum.*

*(b) In the case of existing projects, the actual debt equity shall be used for tariff determination. However, any expansion shall be governed by Regulation 53.*

*(c) Equity invested in foreign currency shall be allowed a return upto the prescribed limit in the same currency and the repayment on this account shall be made in Indian Rupee based on the exchange rate prevailing on the due date of billing.*

*(d) The premium raised by the integrated utility / generating company while issuing share capital and investment of internal resources created out of its free reserve, if any, for funding the project, shall also be reckoned as a paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of approved financial package. The definition of equity thus would involve all net worth deployed in the capital of the unit.”*

The additions to Equity has been considered zero as shown in the tables above for the respective years. The opening balance of Equity are in line with the approved numbers of Hon'ble Commission's True-up order of FY 2015-16 dated 01.10.2024, no further equity has been infused in FY 2016-17 and FY 2017-18, hence, RoE has been claimed for 3 plants (Valmikinagar, Dehri-on-Sone, and Barun) as shown in the tables below.

Accordingly, return on equity has been computed for FY 2016-17 and FY 2017-18 in the respective tables as shown below:

*Table 4: Return on Equity for FY 2016-17*

*(Amount in Crore)*

S. No.	Plants name	Opening Equity	Additions To Equity	Closing Equity	Average Equity	RoE (@14% of Equity)
1	Valmikinagar	17.18	-	17.18	17.18	2.41
2	Dehri-on-sone	9.99	-	9.99	9.99	1.40
3	Barun	4.51	-	4.51	4.51	0.63
	<b>Total</b>	<b>31.68</b>	<b>-</b>	<b>31.68</b>	<b>31.68</b>	<b>4.44</b>

*Table 5: Return on Equity for FY 2017-18*

*(Amount in Crore)*

S. No.	Plants name	Opening Equity	Additions To Equity	Closing Equity	Average Equity	RoE (@14% of Equity)
1	Valmikinagar	17.18	-	17.18	17.18	2.41
2	Dehri-on-sone	9.99	-	9.99	9.99	1.40
3	Barun	4.51	-	4.51	4.51	0.63
	<b>Total</b>	<b>31.68</b>	<b>-</b>	<b>31.68</b>	<b>31.68</b>	<b>4.44</b>

The petitioner requests the Hon'ble Commission to approve RoE of Rs 4.44 Cr. for FY 2016-17 and FY 2017-18 each year respectively as shown in the tables above.

## 2.5. Depreciation

According to Regulation 55(2)(a) of Tariff Regulation, 2007, the Depreciation shall be computed as follows:

*“(i) The value base for the purpose of depreciation shall be the historical cost of the asset.*

*(ii) Depreciation shall be calculated annually, based on the straight-line method over the useful life of the asset and at rates prescribed by the Central Electricity Regulatory Commission*

*(iii) The residual value of the asset shall be considered as 10% and the depreciation shall be allowed upto a maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost for purposes of depreciation while computing 90% of the historical cost of the asset. The historical capital cost for purposes of depreciation of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Central Government / Central Electricity Regulatory Commission*

*(iv) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.*

*(v) Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis.”*

The petitioner in line with the methodology adopted by the Hon'ble Commission in True-up order of FY 2015-16 (ref. Order dated 01.10.2024) for the computation of depreciation has considered the similar approach for working out the overall depreciation for FY 2016-17 and FY 2017-18 as summarised in the tables below:

*Table 6: Depreciation during FY 2016-17*

*(Amount in Crore)*

S. No.	Plants name	Net GFA (excl. Grants)	P&M @60% of Net GFA	Civil @40% of Net GFA	Depreciation on P&M @ 5.28%	Depreciation on Civil @3.34%	Total Depreciation
1	Agnoor	8.10	4.86	3.24	0.26	0.11	0.36
2	Dhelabagh	10.31	6.19	4.12	0.33	0.14	0.46
3	Jainagara	3.81	2.29	1.52	0.12	0.05	0.17
4	Nasriganj	3.94	2.36	1.58	0.12	0.05	0.18

S. No.	Plants name	Net GFA (excl. Grants)	P&M @60% of Net GFA	Civil @40% of Net GFA	Depreciation on P&M @ 5.28%	Depreciation on Civil @3.34%	Total Depreciation
5	Triveni	16.33	9.80	6.53	0.52	0.22	0.74
6	Valmikinagar	57.28	34.37	22.91	1.81	0.77	2.58
7	Dehri-on-sone	40.32	24.19	16.13	1.28	0.54	1.82
8	Barun	15.02	9.01	6.01	0.48	0.20	0.68
9	Koshikataiya	24.57	14.74	9.83	0.78	0.33	1.11
10	Shirkhinda	4.61	2.77	1.84	0.15	0.06	0.21
11	Sebari	7.11	4.27	2.84	0.23	0.09	0.32
12	Arwal	3.28	1.97	1.31	0.10	0.04	0.15
13	Belsar	4.61	2.77	1.84	0.15	0.06	0.21
	<b>Total</b>	<b>199.29</b>	<b>119.57</b>	<b>79.72</b>	<b>6.31</b>	<b>2.66</b>	<b>8.98</b>

Table 7: Depreciation during FY 2017-18

(Amount in Crore)

S. No.	Plants name	Net GFA (excl. Grants)	P&M @60% of Net GFA	Civil @40% of Net GFA	Depreciation on P&M @ 5.28%	Depreciation on Civil @3.34%	Total Depreciation
1	Agnoor	8.10	4.86	3.24	0.26	0.11	0.36
2	Dhelabagh	10.31	6.19	4.12	0.33	0.14	0.46
3	Jainagara	3.81	2.29	1.52	0.12	0.05	0.17
4	Nasriganj	3.94	2.36	1.58	0.12	0.05	0.18
5	Triveni	16.33	9.80	6.53	0.52	0.22	0.74
6	Valmikinagar	57.28	34.37	22.91	1.81	0.77	2.58
7	Dehri-on-sone	40.32	24.19	16.13	1.28	0.54	1.82
8	Barun	15.02	9.01	6.01	0.48	0.20	0.68



S. No.	Plants name	Net GFA (excl. Grants)	P&M @60% of Net GFA	Civil @40% of Net GFA	Depreciation on P&M @ 5.28%	Depreciation on Civil @3.34%	Total Depreciation
9	Koshikataiya	24.57	14.74	9.83	0.78	0.33	1.11
10	Shirikhinda	4.61	2.77	1.84	0.15	0.06	0.21
11	Sebari	7.11	4.27	2.84	0.23	0.09	0.32
12	Arwal	3.28	1.97	1.31	0.10	0.04	0.15
13	Belsar	4.61	2.77	1.84	0.15	0.06	0.21
	<b>Total</b>	<b>199.29</b>	<b>119.58</b>	<b>79.72</b>	<b>6.31</b>	<b>2.66</b>	<b>8.98</b>

## 2.6. Interest on Capital/Loan

According to the Regulation 55(1) of Tariff Regulation, 2007, interest on loan shall be computed as follows:

*“(i) Interest on loan capital shall be computed loan wise on the loans arrived at in manner indicated in Regulation 53.*

*“(ii) In the case of existing projects, the actual debt equity ratio shall be used for tariff determination. However, any expansion shall be governed by Regulation 53.*

*“(iii) The generating company / integrated utility shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such refinancing shall be borne by the beneficiaries.*

*“(iv) The charges on loan terms and conditions shall be reflected from the date of such swapping and benefit shall be passed to the beneficiaries.*

*“(v) In case of any dispute, any of the parties may approach the Commission with proper application. The beneficiaries shall not, however, withhold payment to the generating company / integrated utility during pendency of the dispute, unless the Commission specifically directs such non-payment, relating to swapping of the loan.*

*“(vi) In case any moratorium period is availed of by the integrated utility / generating company, depreciation provided for in the tariffs during the period of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.*

*“(vii) The integrated utility or the generating company shall not make any profit on account of swapping of loan and interest thereon.*

*(viii) The integrated utility or the generating company, may at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest or vice – versa at its own cost and gains or losses as a result of such swapping shall accrue to the utility / generating company. Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted whether on floating or fixed rate of interest.”*

For all the plants under BHPC the debt is funded by Government of Bihar (GoB) and NABARD, the weighted average rate of Interest on Actual Loans from GoB and NABARD comes out to be 9.40%, and 9.33% for FY 2016-17 and FY 2017-18 respectively. (GoB Loan Detail submitted as **Annexure E**)

The working of the same is shown in the below table (Table 8 and 9), where the opening and closing balances of the loans are taken as per the audited accounts of the relevant years.

*Table 8: Loan Balances for FY 2016-17 and FY 2017-18*

*(Amount in Crore)*

Source	GoB				NABARD			
Year	Opening	Closing	Average	Rate	Opening	Closing	Average	Rate
<b>FY 2016-17</b>	302.24	329.71	315.98	10.50%	107.88	131.13	119.51	6.50%
<b>FY 2017-18</b>	329.71	357.18	343.45	10.50%	131.12	154.38	142.75	6.50%

*Table 9: Computation of Weighted Rate of Interest for FY 2016-17 and FY 2017-18*

Year	Weight of GoB	Weight of NABARD	Wt. Rate of GoB	Wt. Rate of NABARD	Total Wt. Interest Rate
<b>FY 2016-17</b>	0.7260	0.2740	10.50%	6.50%	9.40%
<b>FY 2017-18</b>	0.7064	0.2936	10.50%	6.50%	9.33%

Accordingly, computation of Interest on Loan, considering the above-mentioned weighted interest rates (Table-9) and addition to debt as mentioned in the tables in the section above (Table-2 and Table-3), is computed for FY 2016-17 and FY 2017-18 in the respective tables below:

Table 10: Interest Expense during FY 2016-17

(Amount in Crore)

S. No.	Plant name	Opening loan	Addition during the year	Repayment	Net closing balance	Average	Interest rate	Interest expense
(A)	(B)	(C)	(D)	(E)	(F) = (C) + (D) - (E)	(G) = (C + F)/2	(H)	(I) = (G) X (H)
1	Agnoor	5.55	0.00	0.36	5.19	5.37	9.40%	0.50
2	Dhelabagh	7.09	0.00	0.46	6.63	6.86	9.40%	0.64
3	Jainagara	3.74	0.00	0.17	3.57	3.65	9.40%	0.34
4	Nasriganj	3.28	0.00	0.18	3.10	3.19	9.40%	0.30
5	Triveni	11.25	0.00	0.74	10.51	10.88	9.40%	1.02
6	Valmikinagar	-	0.00	0.00	-	-	9.40%	-
7	Dehri-on-sone	-	0.25	0.25	-	-	9.40%	-
8	Barun	-	0.00	0.00	-	-	9.40%	-
9	Koshikataiya	21.80	0.00	1.11	20.69	21.25	9.40%	2.00
10	Shirkhinda	4.40	0.00	0.21	4.19	4.30	9.40%	0.40
11	Sebari	6.05	0.00	0.32	5.73	5.89	9.40%	0.55
12	Arwal	2.67	0.00	0.15	2.52	2.60	9.40%	0.24
13	Belsar	4.06	0.00	0.21	3.85	3.96	9.40%	0.37
	<b>Total</b>	<b>69.89</b>	<b>0.251</b>	<b>4.15</b>	<b>65.99</b>	<b>67.94</b>		<b>6.39</b>

Table 11: Interest Expense during FY 2017-18

(Amount in Crore)

S. No.	Plant name	Opening loan	Addition during the year	Repayment	Net closing balance	Average	Interest rate	Interest expense
(A)	(B)	(C)	(D)	(E)	(F) = (C) + (D) - (E)	(G) = (C + F)/2	(H)	(I) = (G) X (H)
1	Agnoor	5.19	-	0.36	4.82	5.00	9.33%	0.47
2	Dhelabagh	6.63	-	0.46	6.16	6.39	9.33%	0.60
3	Jainagara	3.57	-	0.17	3.40	3.48	9.33%	0.32
4	Nasriganj	3.10	-	0.18	2.93	3.01	9.33%	0.28
5	Triveni	10.51	-	0.74	9.78	10.15	9.33%	0.95
6	Valmikinagar	-	-	-	-	-	9.33%	-
7	Dehri-on-sone	-	0.0018	0.00	-	-	9.33%	-
8	Barun	-	0.0012	0.00	-	-	9.33%	-
9	Koshikataiya	20.69	-	1.11	19.59	20.14	9.33%	1.88
10	Shirkhinda	4.19	-	0.21	3.98	4.09	9.33%	0.38
11	Sebari	5.73	-	0.32	5.41	5.57	9.33%	0.52
12	Arwal	2.52	-	0.15	2.37	2.45	9.33%	0.23
13	Belsar	3.85	-	0.21	3.64	3.75	9.33%	0.35
	<b>Total</b>	<b>65.99</b>	<b>0.0030</b>	<b>3.91</b>	<b>62.08</b>	<b>64.03</b>		<b>5.97</b>

The petitioner requests the Hon'ble Commission to approve Interest Expense of Rs. 6.39 Cr., and Rs. 5.97 Cr. for FY 2016-17 and FY 2017-18 respectively.

## 2.7. Operational and Maintenance Expenses

The petitioner submits that the O&M expenses (which includes Employee Expenses, Repair & Maintenance Expenses, and Administrative & General Expenses) are taken as per Audited Accounts for FY 2016-17 and FY 2017-18. The Petitioner has further prorated the actual O&M

Expenses amongst all the plants based on their generation capacity, and are presented in the table below:

*Table 12: O&M expenses during FY 2016-17 and FY 2017-18*

*(Amount in Crore)*

S. No.	Plants name	Capacity (MW)	FY 2016-17	FY 2017-18
1	Agnoor	1.00	0.15	0.16
2	Dhelabagh	1.00	0.15	0.16
3	Jainagara	1.00	0.15	0.16
4	Nasrganj	1.00	0.15	0.16
5	Triveni	3.00	0.44	0.47
6	Valmikinagar	15.00	2.20	2.34
7	Dehri-on-sone	6.60	0.97	1.03
8	Barun	3.30	0.48	0.51
9	Koshikataiya	19.20	2.81	2.99
10	Shirkhinda	0.70	0.10	0.11
11	Sebari	1.00	0.15	0.16
12	Arwal	0.50	0.07	0.08
13	Belsar	1.00	0.15	0.16
	<b>Total</b>	<b>54.30</b>	<b>7.96</b>	<b>8.47</b>

## **2.8. Interest on Working Capital**

According to the Regulation 55(5) of Tariff Regulations, 2007, Interest on Working Capital is to be computed as follows:

*“(a) The working capital shall cover the following: -*

*(i) Operation and Maintenance expenses for one month;*

*(ii) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation;*

(iii) Receivables equivalent to two months of fixed charges for sale of energy, calculated on normative capacity index.

(b) Rate of interest on working capital shall be the short-term prime lending rate of State Bank of India as on 1st April of the year in which the generation unit/station is declared under commercial operation. The interest on working capital shall be payable on normative basis notwithstanding that the integrated utility / generating company has not taken working capital loan from any outside agency."

The rate of interest for the computation of interest on working capital based upon the aforesaid regulations and as per the Hon'ble Commission's True-up order (dated 01.10.2024) for FY 2015-16.

The petitioner in line with the above has accordingly computed the Interest on Working Capital for the FY 2016-17 and FY 2017-18 in the respective tables as shown below:

*Table 13: Interest on Working Capital during FY 2016-17*

(Amount in Crore)

S. No.	Plant	O&M exp for month <sup>1</sup>	Maintenance spares @1%	Receivables equivalent to 2 months of fixed charge	Working Capital Requirement	Rate of Interest %	Interest on Working Capital
1	Agnoor	0.01	0.09	0.16	0.26	10.75%	0.03
2	Dhelabagh	0.01	0.12	0.20	0.33	10.75%	0.04
3	Jainagara	0.01	0.04	0.10	0.15	12.75%	0.02
4	Nasriganj	0.01	0.04	0.09	0.15	12.75%	0.02
5	Triveni	0.04	0.18	0.33	0.55	12.75%	0.07
6	Valmikinagar	0.18	0.64	0.98	1.81	15.30%	0.28
7	Dehri-on-sone	0.08	0.45	0.62	1.15	18.00%	0.21
8	Barun	0.04	0.17	0.25	0.46	15.75%	0.07
9	Koshikataiya	0.23	0.28	0.67	1.19	12.75%	0.15
10	Shirkhinda	0.01	0.05	0.11	0.17	11.75%	0.02
11	Sebari	0.01	0.08	0.16	0.25	12.25%	0.03

S. No.	Plant	O&M exp for month <sup>1</sup>	Maintenance spares @1%	Receivables equivalent to 2 months of fixed charge	Working Capital Requirement	Rate of Interest %	Interest on Working Capital
12	Arwal	0.01	0.04	0.07	0.11	12.75%	0.01
13	Belsar	0.01	0.05	0.11	0.17	14.50%	0.02
	<b>Total</b>	<b>0.66</b>	<b>2.23</b>	<b>3.84</b>	<b>6.73</b>	<b>1.73</b>	<b>0.97</b>

Table 14: Interest on Working Capital during FY 2017-18

(Amount in Crore)

S. No.	Plant	O&M exp for month <sup>1</sup>	Maintenance spares @1%	Receivables equivalent to 2 months of fixed charge	Working Capital Requirement	Rate of Interest %	Interest on Working Capital
1	Agnoor	0.01	0.09	0.16	0.26	10.75%	0.03
2	Dhelabagh	0.01	0.12	0.20	0.32	10.75%	0.03
3	Jainagara	0.01	0.04	0.10	0.16	12.75%	0.02
4	Nasriganj	0.01	0.04	0.09	0.15	12.75%	0.02
5	Triveni	0.04	0.18	0.33	0.56	12.75%	0.07
6	Valmikinagar	0.19	0.64	1.08	1.92	15.30%	0.29
7	Dehri-on- sone	0.09	0.45	0.66	1.20	18.00%	0.22
8	Barun	0.04	0.17	0.28	0.49	15.75%	0.08
9	Koshikataiya	0.25	0.28	0.78	1.31	12.75%	0.17
10	Shirkhinda	0.01	0.05	0.11	0.17	11.75%	0.02
11	Sebari	0.01	0.08	0.16	0.25	12.25%	0.03
12	Arwal	0.01	0.04	0.07	0.12	12.75%	0.01
13	Belsar	0.01	0.05	0.11	0.18	14.50%	0.03
	<b>Total</b>	<b>0.71</b>	<b>2.23</b>	<b>4.13</b>	<b>7.07</b>	<b>1.73</b>	<b>1.02</b>

The petitioner requests the Hon'ble Commission to approve Interest on Working Capital of Rs. 0.97 Cr. and Rs. 1.02 Cr. for FY 2016-17 and FY 2017-18 respectively.

## 2.9. Non Tariff Income

The Non-Tariff Income (NTI) of Rs. 5.72 crore for FY 2016-17 and Rs. 4.07 crore for FY 2017-18 has been claimed as per the Audited Accounts.

## 2.10. Aggregate Revenue Requirement (ARR)

In line with the Regulation 55 of Tariff Regulations 2007, the petitioner submits that the Annual Revenue Requirement (ARR) by aggregating all the expenses as exhibited in the previous sections i.e. Depreciation, Interest on Loan, O&M expenses, Return on Equity, and Interest on Working Capital. The petitioner herein claimed ARR for the True-up of FY 2016-17 and FY 2017-18 as detailed in the respective table below:

*Table 15: Annual Revenue Requirement for FY 2016-17 and FY 2017-18*

*(Amount in Crore)*

S. No.	Particular	FY 2016-17	FY 2017-18
1	O&M	7.96	8.47
2	Interest on Loan	6.39	5.97
3	Depreciation	8.98	8.98
4	Return on Equity	4.44	4.44
5	Interest on Working Capital	0.97	1.02
6	NTI	5.72	4.07
7	<b>Annual Revenue Requirement</b>	<b>23.01</b>	<b>24.79</b>

The following tables shows the plant-wise ARR computation for relevant years.

*Table 16: Annual Revenue Requirement (Plant-wise) for FY 2016-17*

*(Amount in Crore)*



S. No.	Plant	O&M	Interest on Loan	Depreciation	RoE	Interest on Working Capital	Less: NTI	ARR
1	Agnoor	0.15	0.50	0.36	-	0.03	0.11	0.94
2	Dhelabagh	0.15	0.64	0.46	-	0.04	0.11	1.19
3	Jainagara	0.15	0.34	0.17	-	0.02	0.11	0.58
4	Nasriganj	0.15	0.30	0.18	-	0.02	0.11	0.54
5	Triveni	0.44	1.02	0.74	-	0.07	0.32	1.95
6	Valmikinagar	2.20	-	2.58	2.41	0.28	1.58	5.88
7	Dehri-on-sone	0.97	-	1.82	1.40	0.21	0.69	3.69
8	Barun	0.48	-	0.68	0.63	0.07	0.35	1.52
9	Koshikataiya	2.81	2.00	1.11	-	0.15	2.02	4.05
10	Shirkhinda	0.10	0.40	0.21	-	0.02	0.07	0.66
11	Sebari	0.15	0.55	0.32	-	0.03	0.11	0.95
12	Arwal	0.07	0.24	0.15	-	0.01	0.05	0.43
13	Belsar	0.15	0.37	0.21	-	0.02	0.11	0.65
	<b>Total</b>	<b>7.96</b>	<b>6.39</b>	<b>8.98</b>	<b>4.44</b>	<b>0.97</b>	<b>5.72</b>	<b>23.01</b>

Table 17: Annual Revenue Requirement (Plant-wise) for FY 2017-18

(Amount in Crore)

S. No.	Plant	O&M	Interest on Loan	Depreciation	RoE	Interest on Working Capital	Less: NTI	ARR
1	Agnoor	0.16	0.47	0.36	-	0.03	0.07	0.94
2	Dhelabagh	0.16	0.60	0.46	-	0.03	0.07	1.18

S. No.	Plant	O&M	Interest on Loan	Depreciation	RoE	Interest on Working Capital	Less: NTI	ARR
3	Jainagara	0.16	0.32	0.17	-	0.02	0.07	0.60
4	Nasrganj	0.16	0.28	0.18	-	0.02	0.07	0.56
5	Triveni	0.47	0.95	0.74	-	0.07	0.22	2.00
6	Valmikinagar	2.34	-	2.58	2.41	0.29	1.12	6.49
7	Dehri-on-sone	1.03	-	1.82	1.40	0.22	0.49	3.96
8	Barun	0.51	-	0.68	0.63	0.08	0.25	1.65
9	Koshikataiya	2.99	1.88	1.11	-	0.17	1.44	4.71
10	Shirkhinda	0.11	0.38	0.21	-	0.02	0.05	0.67
11	Sebari	0.16	0.52	0.32	-	0.03	0.07	0.95
12	Arwal	0.08	0.23	0.15	-	0.01	0.04	0.43
13	Belsar	0.16	0.35	0.21	-	0.03	0.07	0.66
	<b>Total</b>	<b>8.47</b>	<b>5.97</b>	<b>8.98</b>	<b>4.44</b>	<b>1.02</b>	<b>4.07</b>	<b>24.79</b>

The petitioner requests the Hon'ble Commission to approve ARR of Rs. 23.01 Cr., and Rs.24.79 Cr. for the True-up of FY 2016-17 and FY 2017-18 respectively.

### 2.11. Saleable Energy

The petitioner submits that the net actual energy generation for FY 2016-17 and FY 2017-18 of all operation plants is 12.38 MUs and 9.75 MUs respectively. The detailed plant-wise generation data is provided as **Annexure C**.

The reason for less saleable energy generation than the designed generation capacity is that most of the plants for which True-up Petition has been filed are Canal Based plants. Hence, the generation from such plants are based on the discharge of water to the canal depending on irrigation requirement and availability of BSEB network for evacuating power.

The petitioner submits that the generation depends on the discharge of water in the canals which is controlled by the irrigation department, therefore, the flow of water is not under the direct

control of BHPC. Hence, the petitioner humbly requests the Hon'ble Commission to allow Tariff as per actual saleable energy for the respective years.

### **2.12. Revenue Gap and the Proposed Treatment**

The petitioner submits the computation of revenue gap for FY 2016-17 and FY 2017-18 as shown in the table below.

The petitioner requests the Hon'ble Commission to consider the impact Revenue Gap in the ARR of FY 2025-26.

*Table 18: Revenue Gap for FY 2016-17 and FY 2017-18*

*(Amount in Crore)*

S. No.	Particular	FY 2016-17	FY 2017-18
1	Revenue as per Audited Accounts	3.33	2.66
2	Trued-up ARR	23.01	24.79
3	<b>Revenue Gap/(Surplus)</b>	<b>19.68</b>	<b>22.13</b>

**DETERMINATION of ANNUAL  
REVENUE REQUIREMENT (ARR) for FY  
2025-26**

### 3. Annual Revenue Requirement for FY 2025-26

#### 3.1. Introduction

In line with the provision contained in the Bihar Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2007, the petitioner is submitting the estimates of expenses for the determination of Annual Revenue Requirement for FY 2025-26.

The following considerations have been made by the Petitioner for the determination of ARR for FY 2025-26:

- 1) For FY 2018-19 to FY 2020-21 the GFA, Equity, and Debt Balances are derived based on the Asset additions in the provisional accounts for the respective years.
- 2) For FY 2021-22, FY 2022-23, FY 2023-24 and FY 2024-25 no addition is proposed, however, the Asset additions would be claimed based on the Actual Accounts at the time of True up.
- 3) O&M expenses has been taken as per provisional accounts of FY 2020-21.

The year on year balances of GFA, Normative Loan, and Normative Equity for the period 2018-19 to 2020-21 is provided as **Annexure D**.

#### 3.2. Return on Equity (RoE)

According to the Regulation 53 of Tariff Regulation, 2007, debt to equity ratio should be treated as follow:

*“(1) In case of all generating stations, the debt – equity ratio as on the date of commercial operation shall be 70:30 for determination of tariffs, provided that the commission may in appropriate cases consider equity higher than 30% for purpose of determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that the deployment of equity more than 30% was in the interest of general public. Provided that*

*(i) in case of a generating station, the actual equity employed is less than 30%, the actual debt and equity employed shall be taken for determination of tariff*

*(ii) in case of existing projects the actual debt: equity ratio shall be used for tariff determination. However any expansion shall be governed by clause (1) above.*

*(2) The debt and equity amount arrived at in accordance with clause (1) shall be used for calculation of interest on loan, return on equity, Advance Against Depreciation and foreign exchange rate variation.”*

The petitioner submits that there has been no infusion of equity in further years.

Table 19: Equity and Debt addition for FY 2025-26

(Amount in Crore)

S. No.	Plant name	Net GFA (excluding Grants)	Addition to Equity	Addition to Debt
1	Agnoor	8.10	-	-
2	Dhelabagh	11.21	-	-
3	Jainagara	3.81	-	-
4	Nasrganj	3.94	-	-
5	Triveni	17.73	-	-
6	Valmikinagar	57.32	-	-
7	Dehri-on-sone	42.89	-	-
8	Barun	15.02	-	-
9	Koshikataiya	24.58	-	-
10	Shirkhinda	5.53	-	-
11	Sebari	7.11	-	-
12	Arwal	3.34	-	-
13	Belsar	4.61	-	-
	<b>Total</b>	<b>205.19</b>	-	-

According to Regulation 55(3) of Tariff Regulation, 2007, Return on Equity shall be computed as follows:

*“(a) The return on equity shall be computed on the equity base determined in accordance with Regulation 53 @ 14% per annum.*

*“(b) In the case of existing projects, the actual debt equity shall be used for tariff determination. However, any expansion shall be governed by Regulation 53.*

*“(c) Equity invested in foreign currency shall be allowed a return upto the prescribed limit in the same currency and the repayment on this account shall be made in Indian Rupee based on the exchange rate prevailing on the due date of billing.*

*(d) The premium raised by the integrated utility / generating company while issuing share capital and investment of internal resources created out of its free reserve, if any, for funding the project, shall also be reckoned as a paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of approved financial package. The definition of equity thus would involve all net worth deployed in the capital of the unit."*

Accordingly, Return on Equity has been computed for FY 2025-26 in the tables as shown below:

*Table 20: Return on Equity for FY 2025-26*

*(Amount in Crore)*

S. No.	Plants name	Opening Equity	Additions To Equity	Closing Equity	Average Equity	RoE (@14% of Equity)
1	Valmikinagar	17.18	-	17.18	17.18	2.41
2	Dehri-on-sone	9.99	-	9.99	9.99	1.40
3	Barun	4.51	-	4.51	4.51	0.63
	<b>Total</b>	<b>31.68</b>	<b>-</b>	<b>31.68</b>	<b>31.68</b>	<b>4.44</b>

The petitioner requests the Hon'ble Commission to approve Return on Equity of Rs. 4.44 Cr. for FY 2025-26.

### **3.3. Depreciation**

According to Regulation 55(2)(a) of Tariff Regulation, 2007, the Depreciation shall be computed as follows:

*"(i) The value base for the purpose of depreciation shall be the historical cost of the asset.*

*(ii) Depreciation shall be calculated annually, based on the straight-line method over the useful life of the asset and at rates prescribed by the Central Electricity Regulatory Commission*

*(iii) The residual value of the asset shall be considered as 10% and the depreciation shall be allowed upto a maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost for purposes of depreciation while computing 90% of the historical cost of the asset. The historical capital cost for purposes of depreciation of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Central Government / Central Electricity Regulatory Commission*

*(iv) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.*

(v) Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis.”

The petitioner has used the same methodology which was used by the Hon’ble Commission in True-up order of FY 2015-16 (dated 01.10.2024) for the computation of depreciation. Accordingly, the overall depreciation worked out for FY 2025-26 is summarised in the table below:

*Table 21: Depreciation for FY 2025-26*

(Amount in Crore)

S. No.	Plants name	Net GFA (excluding Grants)	P&M @ 60% of Net GFA	Civil @ 40% of Net GFA	Depreciation on P&M @ 5.28%	Depreciation on Civil @ 3.34%	Depreciation during the Year
1	Agnoor	8.10	4.86	3.24	0.26	0.11	0.36
2	Dhelabagh	11.21	6.72	4.48	0.36	0.15	0.50
3	Jainagara	3.81	2.29	1.52	0.12	0.05	0.17
4	Nasrganj	3.94	2.37	1.58	0.12	0.05	0.18
5	Triveni	17.73	10.64	7.09	0.56	0.24	0.80
6	Valmikinagar	57.32	34.39	22.93	1.82	0.77	2.58
7	Dehri-on-sona	42.89	25.73	17.15	1.36	0.57	1.93
8	Barun	15.02	9.01	6.01	0.48	0.20	0.68
9	Koshikataiya	24.58	14.75	9.83	0.78	0.33	1.11
10	Shirkhinda	5.53	3.32	2.21	0.18	0.07	0.25
11	Sebari	7.11	4.27	2.85	0.23	0.10	0.32
12	Arwal	3.34	2.00	1.34	0.11	0.04	0.15
13	Belsar	4.61	2.77	1.84	0.15	0.06	0.21
	<b>Total</b>	<b>205.19</b>	<b>123.12</b>	<b>82.08</b>	<b>6.50</b>	<b>2.74</b>	<b>9.24</b>

### 3.4. Interest on Capital/Loan

According to the Regulation 55(1) of Tariff Regulation, 2007, interest on loan shall be computed as follows:



*“(i) Interest on loan capital shall be computed loan wise on the loans arrived at in manner indicated in Regulation 53.*

*(ii) In the case of existing projects, the actual debt equity ratio shall be used for tariff determination. However, any expansion shall be governed by Regulation 53.*

*(iii) The generating company / integrated utility shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such refinancing shall be borne by the beneficiaries.*

*(iv) The charges on loan terms and conditions shall be reflected from the date of such swapping and benefit shall be passed to the beneficiaries.*

*(v) In case of any dispute, any of the parties may approach the Commission with proper application. The beneficiaries shall not, however, withhold payment to the generating company / integrated utility during pendency of the dispute, unless the Commission specifically directs such non-payment, relating to swapping of the loan.*

*(vi) In case any moratorium period is availed of by the integrated utility / generating company, depreciation provided for in the tariffs during the period of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.*

*(vii) The integrated utility or the generating company shall not make any profit on account of swapping of loan and interest thereon.*

*(viii) The integrated utility or the generating company, may at its descretion, swap loans having floating rate of interest with loans having fixed rate of interest or vice – versa at its own cost and gains or losses as a result of such swapping shall accrue to the utility / generating company. Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted whether on floating or fixed rate of interest.”*

The interest rate for the calculation of Interest on Loan for FY 2025-26 has been computed using the same methodology used for the computation of interest rates for True-up in the section above. The opening and closing balances of the loans has been taken as per the provisional accounts. The weighted average interest rate which is 8.49% in FY 2022-23 is taken for the computation of interest expenses in FY 2025-26 and the computation of the same is shown in the tables below:

*Table 22: Loan Balances for FY 2021-22 and FY 2022-23*

*(Amount in Crore)*

Year	GoB				NABARD			
	Opening	Closing	Average	Rate	Opening	Closing	Average	Rate
<b>FY 2021-22</b>	225.77	239.90	232.83	10.50%	243.34	243.34	243.34	6.50%
<b>FY 2022-23</b>	239.90	239.90	239.90	10.50%	243.34	243.34	243.34	6.50%

Table 23: Computation of Weighted Rate of Interest for FY 2025-26

Year	Weight of GoB	Wieht of NABARD	Wt. Rate of GoB	Wt. Rate of NABARD	Total Wt. Interest Rate
<b>FY 2021-22</b>	0.49	0.51	5.13%	3.32%	8.46%
<b>FY 2022-23</b>	0.50	0.50	5.21%	3.27%	8.49%

Accordingly, computation of Interest on Loan, considering the above-mentioned weighted interest rate and addition to debt has been considered zero, is computed for FY 2025-26 in the table below:

Table 24: Interest on Loan for FY 2025-26

(Amount in Crore)

S. No.	Plant name	Opening loan	Addition during the year	Repayment	Net closing balance	Average	Interest rate	Interest expense
(A)	(B)	(C)	(D)	(E)	(F) = (C) + (D) - (E)	(G) = (C + F)/2	(H)	(I) = (G) X (H)
1	Agnoor	5.55	-	0.36	5.19	5.37	8.49%	0.46
2	Dhelabagh	7.99	-	0.50	7.48	7.73	8.49%	0.66
3	Jainagara	3.74	-	0.17	3.57	3.65	8.49%	0.31
4	Nasriganj	3.28	-	0.18	3.11	3.19	8.49%	0.27
5	Triveni	12.65	-	0.80	11.86	12.26	8.49%	1.04
6	Valmikinagar	0.04	-	0.04	-	0.02	8.49%	0.00
7	Dehri-on-sone	2.82	-	2.82	-	1.41	8.49%	0.12
8	Barun	0.00	-	0.00	-	0.00	8.49%	0.00
9	Koshikataiya	21.81	-	1.11	20.70	21.25	8.49%	1.80
10	Shirkhinda	5.32	-	0.25	5.07	5.20	8.49%	0.44
11	Sebari	6.05	-	0.32	5.73	5.89	8.49%	0.50
12	Arwal	2.73	-	0.15	2.58	2.65	8.49%	0.23
13	Belsar	4.06	-	0.21	3.85	3.96	8.49%	0.34

S. No.	Plant name	Opening loan	Addition during the year	Repayment	Net closing balance	Average	Interest rate	Interest expense
	<b>Total</b>	<b>76.04</b>	<b>-</b>	<b>6.91</b>	<b>69.14</b>	<b>72.59</b>		<b>6.16</b>

The petitioner requests the Hon'ble Commission to approve Interest Expense of Rs. 6.16 Cr. for FY 2025-26.

### 3.5. Operational and Maintenance Expenses

The petitioner submits that the O&M expenses (which also includes Employee Expenses, Repair & Maintenance Expenses, and Administrative & General Expenses) for FY 2025-26 are taken as per the Provisional Accounts for FY 2020-21, and are further prorated among the 13 plants as per their respective generation capacity, and are presented in the table below:

*Table 25: O&M Expenses for FY 2025-26*

*(Amount in Crore)*

S. No.	Plants name	Capacity (MW)	FY 2025-26
1	Agnoor	1.00	0.22
2	Dhelabagh	1.00	0.22
3	Jainagara	1.00	0.22
4	Nasriganj	1.00	0.22
5	Triveni	3.00	0.66
6	Valmikinagar	15.00	3.32
7	Dehri-on-sona	6.60	1.46
8	Barun	3.30	0.73
9	Koshikataiya	19.20	4.25
10	Shirkhinda	0.70	0.15
11	Sebari	1.00	0.22
12	Arwal	0.50	0.11
13	Belsar	1.00	0.22
	<b>Total</b>	<b>54.30</b>	<b>12.02</b>

### 3.6. Interest on Working Capital

According to the Regulation 55(1) of Tariff Regulation, 2007, interest on loan shall be computed as follows:

*“(i) Interest on loan capital shall be computed loan wise on the loans arrived at in manner indicated in Regulation 53.*

*“(ii) In the case of existing projects, the actual debt equity ratio shall be used for tariff determination. However, any expansion shall be governed by Regulation 53.*

*“(iii) The generating company / integrated utility shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such refinancing shall be borne by the beneficiaries.*

*“(iv) The charges on loan terms and conditions shall be reflected from the date of such swapping and benefit shall be passed to the beneficiaries.*

*“(v) In case of any dispute, any of the parties may approach the Commission with proper application. The beneficiaries shall not, however, withhold payment to the generating company / integrated utility during pendency of the dispute, unless the Commission specifically directs such non-payment, relating to swapping of the loan.*

*“(vi) In case any moratorium period is availed of by the integrated utility / generating company, depreciation provided for in the tariffs during the period of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.*

*“(vii) The integrated utility or the generating company shall not make any profit on account of swapping of loan and interest thereon.*

*“(viii) The integrated utility or the generating company, may at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest or vice – versa at its own cost and gains or losses as a result of such swapping shall accrue to the utility / generating company. Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted whether on floating or fixed rate of interest.”*

The rate of interest for the computation of interest on working capital based upon the aforesaid regulations and as per the Hon’ble Commission’s True-up order (dated 01.10.2024) for FY 2015-16.

Accordingly, computation of Interest on Working Capital considering the above-mentioned parameters is computed for FY 2025-26 in the respective table below:

Table 26: Interest on Working Capital for FY 2025-26

(Amount in Crore)

S. No.	Plant	O&M exp for month	Maintenance spares @1%	Receivables equivalent to 2 months of fixed charge	Working Capital Requirement	Rate of Interest %	Interest on Working Capital
1	Agnoor	0.02	0.09	0.18	0.29	10.75%	0.03
2	Dhelabagh	0.02	0.13	0.24	0.38	10.75%	0.04
3	Jainagara	0.02	0.04	0.12	0.18	12.75%	0.02
4	Nasriganj	0.02	0.04	0.12	0.18	12.75%	0.02
5	Triveni	0.06	0.20	0.43	0.69	12.75%	0.09
6	Valmikinagar	0.28	0.64	1.44	2.37	15.30%	0.36
7	Dehri-on- sone	0.12	0.48	0.86	1.47	18.00%	0.26
8	Barun	0.06	0.17	0.36	0.58	15.75%	0.09
9	Koshikataiya	0.35	0.28	1.23	1.86	12.75%	0.24
10	Shirkhinda	0.01	0.06	0.15	0.22	11.75%	0.03
11	Sebari	0.02	0.08	0.18	0.27	12.25%	0.03
12	Arwal	0.01	0.04	0.084	0.13	12.75%	0.02
13	Belsar	0.02	0.05	0.13	0.20	14.50%	0.03
	<b>Total</b>	<b>1.00</b>	<b>2.30</b>	<b>5.52</b>	<b>8.82</b>		<b>1.27</b>

The petitioner requests the Hon'ble Commission to approve Interest on Working Capital of Rs. 1.27 Cr. for FY 2025-26.

### 3.7. Aggregate Revenue Requirement (ARR)

The petitioner submits that the Annual Revenue Requirement have been arrived by aggregating all the expenses as illustrated in the previous sections i.e. Depreciation, Interest on Loan, O&M expenses, Return on Equity, and Interest on Working Capital. The petitioner herein claimed ARR for FY 2025-26 as detailed in the table below:

Table 27: Annual Revenue Requirement for FY 2025-26

(Amount in Crore)

S. No.	Particular	FY 2025-26
1	O&M	12.02
2	Interest on Loan	6.16
3	Depreciation	9.24
4	Return on Equity	4.44
5	Interest on Working Capital	1.27
6	<b>Annual Revenue Requirement</b>	<b>33.12</b>

The following tables shows the plant-wise ARR computation for FY 2025-26.

Table 28: Annual Revenue Requirement (Plant-wise) for FY 2025-26

(Amount in Crore)

S. No.	Plant	O&M	Interest on Loan	Depreciation	RoE	Interest on Working Capital	ARR
1	Agnoor	0.22	0.46	0.36	-	0.03	1.07
2	Dhelabagh	0.22	0.66	0.50	-	0.04	1.42
3	Jainagara	0.22	0.31	0.17	-	0.02	0.73
4	Nasriganj	0.22	0.27	0.18	-	0.02	0.69
5	Triveni	0.66	1.04	0.80	-	0.09	2.59
6	Valmikinagar	3.32	0.00	2.58	2.41	0.36	8.67
7	Dehri-on-sone	1.46	0.12	1.93	1.40	0.26	5.17
8	Barun	0.73	0.00	0.68	0.63	0.09	2.13
9	Koshikataiya	4.25	1.80	1.11	-	0.24	7.40
10	Shirkhinda	0.15	0.44	0.25	-	0.03	0.87
11	Sebari	0.22	0.50	0.32	-	0.03	1.08

S. No.	Plant	O&M	Interest on Loan	Depreciation	RoE	Interest on Working Capital	ARR
12	Arwal	0.11	0.23	0.15	-	0.02	0.50
13	Belsar	0.22	0.34	0.21	-	0.03	0.79
	<b>Total</b>	<b>12.02</b>	<b>6.16</b>	<b>9.24</b>	<b>4.44</b>	<b>1.27</b>	<b>33.12</b>

The petitioner requests the Hon'ble Commission to approve ARR of Rs. 33.12 Cr. for FY 2025-26.

### 3.8. Saleable Energy

The Petitioner submits that in order dated 01.10.2024 the Hon'ble Commission has allowed Tariff on saleable energy of 88.99 MUs. The Petitioner requests the Hon'ble Commission to consider the same energy for the ARR FY 2025-26. The details of actual generation would be submitted at the time of True-up.

### 3.9. Recovery of Surplus/ Gap

The Petitioner submits before the Hon'ble Commission to pass the impact of the Revenue Gap accrued during the True-Up for FY 2016-17 and FY 2017-18. The relevant extracts of the said Regulation is reproduced below:

#### *"22. Review and Truing up*

*(1) The Commission shall undertake a review along with next Tariff Order, of the expenses and revenues approved by the Commission in the current year Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / pre-actuals of the sale of electricity, income and expenditure for the relevant year and permit necessary adjustments / changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.*

*(2) After audited accounts of the year are made available, the Commission shall undertake a similar exercise as in sub-clause (1) above based on the final actual figures as per the audited accounts. This exercise based on the audited accounts shall be called 'Truing up'. The truing up exercise for any year shall not ordinarily be considered after more than one year gap after 'Review'.*

*(3) The Revenue gap of next year shall be adjusted as a result of Review and Truing up exercises.*

*(4) While approving adjustments towards revenue / expenses in future years, arising out of Review / Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses / revenues, Carrying costs shall be limited to the interest rate approved for working capital borrowings.*

*(5) For any revision of approvals, the licensee shall satisfy the Commission that the revision is necessary for the reasons beyond its control. In case additional supply is required to be made to any particular category, the licensee may, at any time during the year, make an application to the Commission for its approval, duly explaining the need for such change of consumer mix and additional supply of power and also indicating the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power. The Commission may consider according approval to such proposals provided the cost of additional supply of power is met by the beneficiary category."*

The Petitioner therefore propose Gap adjustment pertaining to the True-up of FY 2016-17 and FY 2017-18 in the ARR of FY 2025-26. The working of the Gap computation is illustrated in the table below:

*Table 29: Recovery of Gap*

*(Amount in Crore)*

S. No.	Parameters	FY 2025-26
1	ARR of FY 2025-26	33.12
2	True-up Gap FY 2016-17	19.68
3	True-up Gap FY 2017-18	22.13
<b>4</b>	<b>Recoverable ARR during FY 2025-26</b>	<b>74.94</b>

The petitioner also request the Hon'ble Commission to allow carrying cost for the Gap of all the True-up years as mentioned in the table above.



## 4. List of Annexures

- Annexure A – Tariff Formats
- Annexure B – Audited Accounts of FY 2015-16 to FY 2015-16
- Annexure C – Generation Data for FY 2016-17 and FY 2017-18
- Annexure D – GFA, Equity, and Loan addition for the period of FY 2016-17 to FY 2020-21.
- Annexure E – Government of Bihar Loan Details