

NAGALAND ELECTRICITY REGULATORY COMMISSION (NERC)



TARIFF ORDER

3X2.7 MW Lower Likhimro Hydroelectric Power Project Moya Village, Kiphire

Dated the 11th March, 2025.

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ABBREVIATIONS

Abbreviation	Description
ARR	Aggregate Revenue Requirement
CERC	Central Electricity Regulatory Commission
Cr.	Crores
CWIP	Capital Work in Progress
DE	Debt Equity
ER	Eastern Region
FY	Financial Year
GFA	Gross Fixed Assets
KV	Kilovolt
KW	Kilo Watt
kWh	kilo Watt hour
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NER	North Eastern Region
NERC	Nagaland Electricity Regulatory Commission
NTP	National Tariff Policy
O&M	Operation & Maintenance
PLF	Plant Load Factor
PLR	Prime Lending Rate
R&M	Repairs and Maintenance
RoR	Rate of Return
Rs.	Rupees
S/s	Sub Station
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
YoY	Year on Year

Before the
Nagaland Electricity Regulatory Commission (NERC)
Nagaland, Kohima

Case No: 02/2024-25

In matter of determination of levelized Tariff for Renewable Energy Generation of 3X2.7 MW Lower Likhimro Hydroelectric Power Project, Nagaland for a period of 40 years on Petition filed by M/s. NEC Energy Private Limited, Gurugram, Haryana.

Present: Shri. Khose Sale
Chairman-cum-Member,
NERC, Kohima.

Petitioner: M/s. NEC Energy Private Limited.

Date of Hearing : 17-01-2025

Date of Order : 11-03-2025

Order

1. M/s NEC Energy Limited, (hereinafter referred to The Petitioner) proposed to develop 3X2.7 MW Lower Likhimro Small Hydroelectric Power Project at Moya village, Kiphire in the State of Nagaland.
2. The Petitioner submitted that the installed capacity of the project shall be 3X2.7 MW. The proposed Project cost is Rs. 1,189.15 Lakh/MW and the proposed levelled tariff @ Rs. 4.70/kWh for 40 Years after an agreement with the buyer. The Petitioner proposed to complete the project within 36 months from the date of approval.
3. The Nagaland Electricity Regulatory Commission (NERC), upon following the procedures and in exercise of powers vested by Section 62(1) and Section 64 (3)(a) of the Electricity Act, 2003 and in accordance with the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 and other enabling provisions in this behalf, has approved the levelled provisional Tariff for Generation of

power from LLHPP @ **Rs. 4.70/kWh** for 40 Year subject to the following conditions:

- (a) The Tariff will be reviewed based on the submission of capital expenditure actually incurred up to the date of commercial operation duly audited and certified by the statutory auditors.
- (b) Any escalation in the tariff shall not be allowed beyond the approved tariff.
- (c) Signing of Power Purchase Agreement (PPA) between the Project Developer and the State Government/Distribution Licensee is done on Timely manner.
- (d) The Execution and Commissioning is completed within the scheduled time prescribed in the DPR failing which the Petitioner shall apply for time extension specifying the reason of delay in execution of the project.

4. Power Evacuation (Grid Connectivity):

The evacuation of power from the said Hydro Electric Power Plant shall be at the level of 66 kV upto main Likhimro HEP switchyard via a unity ratio at 10 MVA, 11/66 kV transformers.

Further, stepped-up power will be connected to 66 kV Busbar of existing upstream 24 MW Likhimro Hydroelectric Power Project's switchyard located at main Likhimro power plant.

Place: Kohima, Nagaland.

Date: 11-03-2025

sd/-
Chairman
NERC, Kohima.

1. INTRODUCTION

1.1. Nagaland Electricity Regulatory Commission

In exercise of the powers conferred by the Electricity Act, 2003, the State Government of Nagaland constituted an Electricity Regulatory Commission to be known as “Nagaland Electricity Regulatory Commission” for the State of Nagaland, as notified on 21st February, 2008.

The Commission is a one-member body designated to function as an autonomous authority responsible for regulation of the power sector in the State of Nagaland. The powers and the functions of the Commission are as prescribed in the Electricity Act, 2003. The head office of the Commission is presently located at Kohima, Nagaland.

The Nagaland Electricity Regulatory Commission started to function with effect from 4th March, 2008 with the objectives and purposes for which the Commission has been established.

1.1.1. In accordance with the provisions of the Act, the Nagaland Commission discharges the following functions:

- (a) Determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the 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 licensee;
- (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 Grid Code specified under Clause (h) of subsection (1) of Section 79;
- (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.
- (k) Discharge such other functions as may be assigned to it under the Act.

1.1.2. Tariff Petition:

The Petitioner has filed a Petition before the Commission on 17th October, 2024 for determination of levellised tariff for 3X2.7 MW Lower Likhimro Hydro Electric Power Plant at Moya village, Kiphire, Nagaland.

The Petitioner has prayed for the generic Tariff of Rs. 4.70/kWh for its 3X2.7 MW Lower Likhimro Hydro Electric Power Plant for 40 years.

1.2. Admission of Petition and Publication:

The Commission, after receiving requisite additional information and clarifications from the Petitioner, admitted the petition on 22nd October, 2025 vide case No. 02/2024-25.

In accordance with section 64 of the Electricity Act, 2003 and to ensure public participation, the summary of the petition in the abridged form was published on 24/10/2024 in following local Newspapers inviting the stakeholders/public/consumers to submit their objections and suggestions, if any, in writing or in person, to the NERC on the petition on or before 15/11/2024.

Sl. No.	Name of the Newspaper	Language	Date of Publication
1	Nagaland Post	English	24-10-2024
2	The Morung Express	English	24-10-2024
3	Eastern Mirror	English	24-10-2024

No objection/suggestion were received by the Commission on the petition till the last date of submission.

1.3. Notice for Public Hearing:

The Commission, through the above-mentioned Public Notice published on 09-01-2025 invited the interested stakeholders, general public and consumers to the public hearing scheduled to be held on 17-01-2025 at NERC's Conference Hall, Kohima on the said petition. The detail minutes of the Public Hearing is given in Chapter-3.

2. SUMMARY OF TARIFF PETITION

2.1. Project Cost & Annual Fixed Charges

The Petitioner in its petition has proposed the project cost of the 3X2.7 MW Lower Likhimro Hydro Electric Power Plant at Moya village, Kiphire Dist, Nagaland along with Annual Fixed Charges & levellised Tariff. The proposed project cost & Tariff are shown in Table below.

Table 1: Project Cost projected by petitioner (Rs. in Lakhs)

Sl. No.	Particulars	Amount (in lakhs)
A	Civil works	4,766.70
	<i>Trench Weir</i>	434.85
	<i>Power Channel</i>	187.32
	<i>Desilting Basin</i>	468.30
	<i>Water Conductor System</i>	2,342.20
	<i>Surge Shaft</i>	301.05
	<i>Powerhouse and Tail Race</i>	883.08
	<i>Land Acquisition</i>	149.90
B.	Cost of EM works	2,943.60
	<i>Power Plant + Erection (E&M)</i>	2,500.00
	<i>Transmission line / Distribution</i>	443.60
C.	Cost of HM works	334.50
	<i>Penstock</i>	334.50
D.	Contingencies	156.90
	<i>Preliminary & Environmental Exp</i>	156.90
E.	Project Managements & Other Services	420.08
I	Total (A + B + C + D + E)	8,621.78
II	Financing Charges	69.59
III	Interest During Construction (IDC)	940.75
	Project Cost (I + II + III)	9,632.12

2.2. Prayers of Petition:

The Petitioner has prayed in its petition for the following:

- To admit and approve the Petition for the 3X2.7 MW Lower Likhimro Hydro Electric Power Plant at Moya village, Kiphire District, Nagaland.
- To approve the tariff as submitted by the petitioner.
- Condone any inadvertent delay/omissions/errors/rounding off differences/shortcoming and Petitioner may please be permitted to add/change/modify/alter the petition.
- Permit petitioner to filed additional data/information as may be necessary.
- Pass such orders as the Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

3. PUBLIC HEARING

3.1. Public Hearing

As envisaged in the Electricity Act, 2003 and also to ensure transparency in the process of determination of tariff, public hearing was held as scheduled on 17th January, 2025 in the Office of the NERC, Kohima.

3.2. Proceedings of Public Hearing

The Public Hearing was chaired by Shri. Khose Sale, Chairman, Nagaland Electricity Regulatory Commission (NERC). He welcomed all the Members present and expressed his wishes for a good interaction and a fruitful discussion. To begin with the public hearing, summary of the petition was briefed by the petitioner followed by queries and replies. During the hearing, participants were given adequate opportunity to raise queries & comments if any, on the Petition filed by the project Petitioner. There were queries and replies on many points.

Queries by Stakeholders:

1. The Petitioner needs to submit the study/calculation of project specific hydrology & discharge availability and calculation of corresponding monthly design energy for the HEP.

Reply: *The study and calculations related to project-specific hydrology, discharge availability, and the corresponding monthly design energy have been compiled and shall be submitted soon.*

2. It is observed that the Petitioner has claimed Depreciation of Rs. 457.72 Lakhs per annum with payback period of 15 years. Whereas CERC RE Tariff Regulations, 2024 specifies that the rate of depreciation shall be 4.67% per annum (i.e. Rs. 449.82 Lakhs per annum upto 15 years) for the first 15 years and the remaining depreciation shall be evenly spread during the remaining Useful Life of the project. The Petitioner needs to clarify the same.

Reply: *It is to acknowledge here that the specified rates are as per the CERC RE Tariff Regulations, 2024 and to clarify that we have already considered the depreciation rate of 4.67% per annum in the basic parameters. As the regulation specifies this amount as a normative value for O&M expenses, we have accordingly adopted it in our tariff computation.*

3. The Petitioner has claimed O&M Expenses of Rs. 36.93 Lakhs/MW as per the CERC RE Regulations, 2024. However, the Petitioner needs to project its actual O&M Expenses for each year of the total project life.

Reply: *The O&M Expenses @ Rs. 36.93 Lakhs/MW have been considered in accordance with the CERC RE Tariff Regulations, 2024.*

4. The Petitioner has claimed Debt: Equity Ratio of 70:30 (Rs. 67.42 Cr. as Debt and Rs. 28.90 Cr. as Equity) as per Basic Parameters. However, the Petitioner has considered Rs. 2656.12 Lakhs for Return on Equity Computation, which comes to 28% of the total Project Cost (Including IDC). Therefore, the Petitioner needs to clarify the same.

Reply: *The amount of Rs. 2656.12 Lakhs considered for Return on Equity computation is exclusive of IDC.*

5. The Petitioner has not considered any MAT/Tax rate for grossing up the Rate of Return on Equity. The Petitioner needs to clarify/confirm the same.

Reply: *It is to clarify that as per Section 115BAA of the Income Tax Act, entities opting for the concessional tax regime are not required to pay Minimum Alternate Tax (MAT).*

6. The Petitioner needs to submit the Actual Loan Portfolio/Agreement entered with the financial Institution and basis of considering the rate of interest.

Reply: *It is to clarify that Currently no bank or financial institution will provide a loan profile or enters into any loan agreement without a duly signed Power Purchase Agreement (PPA). As the PPA for the 3x2.7 MW Lower Likhimro Hydro Power Plant is yet to be executed, the loan portfolio and financial agreements have not been finalized. However, we have provided indicative financial projections and assumptions based on the current factual market conditions and financing norms. Once the PPA is signed and financial closure is achieved, the actual loan details, including agreements and interest rates, will be submitted accordingly.*

7. The Petitioner needs to submit the computation of discounting factor considered for determination of levellised tariff.

Reply: *Discount rate is 9.079% $(10.52\% \times 70\% \times (1-27.82\%))+17.6\% \times 30\%$ (rate of Return on Equity (ROE) is considered at post tax rate of 17.6 %)*

Commission:

The Commission considered the submission advanced by the representatives of the M/s NEC Energy Limited as well as the submission of the DPN.

Taking into account the concern of both the parties, the Commission considered the prudent cost for the project developer and rationalised the tariff relating to existing average power purchase cost of the DPN and the energy market trends to balance with consumer interest.

The participant who attended the Public Hearing is as listed here below:

- | | | |
|------------------------------|---|-----------------------------|
| 1) Er. Khose Sale | - | Chairperson, NERC. |
| 2) Er. Kasho Chishi | - | Chief Engineer (T&G), DoPN. |
| 3) Er. T. Lithrichum Sangtam | - | SE (Generation), DoPN. |
| 4) Er. Rukangutuo Suohu | - | SE (Revenue), DoPN. |
| 5) Er. Mhonlumo Kikon | - | EE (Revenue), DoPN. |
| 6) Shri. L. Humtsoe | - | Plant Manager, LLHEP. |
| 7) Shri. Hom Bahadur Karki | - | Technical Head, LLHEP. |
| 8) Shri. Sachin Tyagi | - | Finance Manager, LLHEP. |
| 9) Shri. Temsu Walling | - | Legal Advisor, LLHEP. |
| 10) Er. Hekavi N Ayemi | - | Deputy Director, NERC. |

Sd/-

Er. HEKAVI N AYEMI

Deputy Director,
Nagaland Electricity Regulatory
Commission (NERC), Kohima.

4. PROJECT IMPLEMENTATION AND COST

4.1. Overview of the Project

The Petitioner submitted that the 3X2.7 MW Lower Likhimro Hydro Electric Power Plant shall be located at Moya village, Kiphire Dist, Nagaland. The Petitioner further submitted that total 30 Hectares of land required to establish the said project. Further, the petitioner submitted that the major part of the land belongs to Moya Village Council. Therefore, it has taken No Objection Certificate (NoC) from the Village Council and submitted the same before the Commission.

The Petitioner further submitted that the entire project of 3X2.7 MW at this site will be able to generate 31.61 MUs with the capacity utilization factor at 45%.

4.2. Grid Connectivity (Power Evacuation)

Petitioner's Submission:

The Petitioner submitted that the evacuation of power from the said Hydro Electric Power Plant shall be at the level of 66 kV upto main Likhimro HEP switchyard via a unity ratio at 10 MVA 11/66 kV transformers.

Further, stepped-up power will be connected to 66 kV Busbar of existing upstream 24 MW Likhimro Hydroelectric Power Project's switchyard located at main Likhimro power plant.

4.3. Capital Cost Petitioner's Submission:

4.3.1. The Petitioner submitted that the 3X2.7 MW Lower Likhimro Hydro Electric Power Plant shall be implemented through a turnkey engineering, procurement and construction (EPC) contract. The total project cost including all GST, taxes etc. for the implementation of the said project is as follows:

Table 2: Total Estimated Project Cost (Rs. in Lakhs)

Sl. No.	Particulars	Amount (in lakhs)
A	Civil works	4,766.70
	<i>Trench Weir</i>	434.85
	<i>Power Channel</i>	187.32
	<i>Desilting Basin</i>	468.30
	<i>Water Conductor System</i>	2,342.20

Sl. No.	Particulars	Amount (in lakhs)
	<i>Surge Shaft</i>	301.05
	<i>Powerhouse and Tail Race</i>	883.08
	<i>Land Acquisition</i>	149.90
B.	Cost of EM works	2,943.60
	<i>Power Plant + Erection (E&M)</i>	2,500.00
	<i>Transmission line / Distribution</i>	443.60
C.	Cost of HM works	334.50
	<i>Penstock</i>	334.50
D.	Contingencies	156.90
	<i>Preliminary & Environmental Exp</i>	156.90
E.	Project Managements & Other Services	420.08
I	Total (A + B + C + D + E)	8,621.78
II	Financing Charges	69.59
III	Interest During Construction (IDC)	940.75
	Project Cost (I + II + III)	9,632.12

4.3.2. Means of Finance

The total estimated project cost for 3X2.7 MW Lower Likhimro Hydro Electric Power Plant is Rs. 9,632.12 Lakhs. The Petitioner submitted that the total project shall be funded through the mixture of debt and equity in the Ratio of 70:30.

4.3.3. Project Components & Assumptions

The summarised detail of the project is as follows:

Sl. No.	Nomenclature	Description
A	Diversion Structure	
1.	Type of Structure	Trench type weir with trash rack
2	Length	Approx. 50 Mtr.
B	Intake Structure	
1	Shape and Size	Rect. 10m X 6m X 6m
2	Size of gates Inlet to Desilting Structure	4.0 m X 3.0 m

Sl. No	Nomenclature	Description
C	Desilting Basin	
1	Type	Hopper Type
2	Material of Construction	RCC
3	Size	Approx 120m (L) X 12m (W)
4	Particle size to be removed	0.2 mm
5	Size of silt flushing pipe	400 mm dia (06 Nos)
D	Water Conductor System	
1	Length (Approx)	1850 M
2	Shape	Circular
3	Size	Dia 3000 mm
4	Material	Steel Pipe
E	Surge Shaft	
1	Size	Dia 8.5 m, Height 23.08 m
F	Penstock	
1	Main penstock Diameter and thickness	2000 mm ID & 12-18 mm
2	Number	One
3	Length	Approx 120m
4	Design Discharge	12.82 Cumecs
G	Branch Main Penstock	
1	Number	Three
2	Diameter and Thickness	1300 mm ID & 14-16 mm
3	Length	18, 23, 29 M (Unit 1,2,3)
4	Design discharge	4.27 Cumecs for each branch
H	Power House	
1	Type	Surface
2	Head	
3	Gross	77.65 m
4	Net Design	75.00 m
5	Design Discharge	12.82 Cumec
6	Size of power house (LxWxH)	42.0mx (8.75+6.5) m x 11.2 m
I	Turbines	
1	Type	Horizontal Francis
2	Number	Three
3	Capacity	270 KWe at Generator Terminal
4	Type of Generator	Horizontal Synchronous with Brushless excitation system, 11kV, 0.9pf.

Sl. No.	Nomenclature	Description
5	Regulation system	Digital Governor for Turbine & AVR for Generator
6	Power house crane	EOT / 8.7 m span
7	Lifting tackle capacity	30 MT/ 5 MT
J	Tail Race	
1	Shape	Rectangular
2	No.	One
3	Length	Approx. 20 m
4	Size W x H (m) W x H x L (m) W x H (m)	DT Exit: 3 x 4. 3 Tail Race Pool: 23 x 15.5 x 9.5 Tail race pool exit: 10 x 5

4.4. Commission's Analysis:

Regulation 27 of the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides that the Capital Cost for small hydro projects during the first year of the Control Period, i.e. the financial year 2024-25 shall be Rs. 1,200 Lakhs/MW.

The Petitioner has claimed Rs. 1189.15 Lakhs/MW for execution of the 3X2.7 MW Likhimro Hydro Electric Power Plant which is below the norms as decided by the CERC for the base year i.e. FY 2024-25. The above cost is considered to be inclusive of all taxes such as GST etc.

Therefore, the commission has considered the project cost of Rs.1,189.15 Lakhs / MW for development of the project.

The Details of claimed and approved Capital Cost for execution of the project is as follows:

Table 3: Summary of Approved Project Cost (Rs. in Lakhs)

Sl. No.	Particulars	Unit	Claimed	Approved
1	Total Installed Capacity	MW	8.1	8.1
2	Capital Cost	Rs. Lakh/MW	1,189.15	1,189.15
3	Total Capital Cost	Rs. Lakh	9,632.12	9,632.12
4	Govt. Subsidy (If any)	Rs. Lakh	-	-
5	Net Capital Cost	Rs. Lakh	9,632.12	9,632.12

Further, the Petitioner is directed to submit audited actual capital cost to the Commission after commissioning of the project along with the impact of the same on the tariff.

4.5. **Debt Equity Ratio:**

Provisions relating to the Debt Equity ratio for calculation for interest on loan & return on equity, as given in Regulation 13 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 has been considered for determination of Debt-Equity. The Regulation provides as follows:

- (1) *For determination of generic tariff and project specific tariff, the debt equity ratio shall be considered as 70:30.*
 - i. *The project specific tariffs, where the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan;*
 - ii. *The project specific tariffs where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff;*
 - iii. *The equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;*
 - iv. *The debt-equity ratio shall be considered after deducting the amount of grant or capital subsidy received for the project for arriving at the amount of debt and equity; and*
 - v. *The premium, if any, raised by the generating company while issuing share capital and investment of internal resources created out of its free reserve for the funding of the project shall be reckoned as paid-up capital for the purpose of computing return on equity only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the renewable energy project.*

It is observed that the Petitioner has claimed debt: Equity ratio of 70:30 for execution of the project. However, while computing normative Debt and Equity base, it has not considered the Interest During Construction (IDC).

Regulation 12 of the CERC MYT Tariff Regulations, 2024 provides that the Capital Cost shall be inclusive of land cost, pre-development cost, commissioning, financing cost and interest during construction.

The Petitioner vide its data gap reply submitted that it has not considered the IDC for computing the Equity base and claimed Equity as Rs. 2,656.12 Lakhs which is 28% of the total project cost including IDC.

Therefore, the Commission has considered the equity base as Rs. 2656.12 Lakhs for computation of normative Equity base and balance as normative debt. The Details of the same is as follows:

Table 4: Approved Means of Finance

(Rs. in Lakhs)

Total Project Cost	Normative Debt (72%)	Normative Equity (28%)
9,632.12 Lakhs	6,975.99 Lakhs	2,656.12 Lakhs

Accordingly, the Commission considered normative Debt & Equity as above for computation of RoE & Interest on Loan.

5. Annual Fixed Charges

5.1. Overview of Annual Fixed Charges:

The CERC Regulations provides for the components of AFC and various parameters as provided below:

- (a) Operation and Maintenance expenses;
- (b) Depreciation;
- (c) Interest on loan;
- (d) Interest on working capital;
- (e) Return on equity.

Each of the above components are analysed and discussed in the subsequent sections.

5.2. Operation and Maintenance Expenses:

The Petitioner has claimed O&M Expenses as Rs. 299.13 Lakh for 1st Year with an escalation rate at 5.25% per annum during its entire project life.

Commission's Analysis:

Regulation 19 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides as follows:

- (1) *Operation and Maintenance expenses shall be determined for the Tariff Period of the project based on normative O&M expenses specified in these regulations for the first year of the Control Period.*
- (2) *Normative O&M expenses allowed during the first year of the Control Period, i.e. financial year 2024-25, under these regulations, shall be escalated at the rate of 5.25% per annum for the Tariff Period.*

Further, Regulation 30 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides that the normative O&M Expenses for the first year of the Control Period, i.e. financial year 2024-25 shall be Rs. 36.93 Lakhs/MW.

Therefore, the Commission has considered the annual O&M Expenses at Rs. 36.93 Lakhs/MW with escalation rate of 5.25% in line with the CERC MYT Tariff Regulations, 2024. The details of claim and approve figures of O&M Expenses is provided as follows:

Table 5: O&M Expenses (Rs. in Lakhs)

Sl. No.	Particulars	Unit	Claimed	Approved
1	Total Installed Capacity	MW	8.10	8.10
2	Total Project Cost	Rs. Lakh	9,632.12	9,632.12
3	Annual O&M Expense	Rs. Lakhs/MW	36.93	36.93
4	Annual O&M Expense	Lakh	299.13	299.13
5	Escalation Rate	%	5.25%	5.25%
6	Total Normative O&M Expenses	Lakh	38,417.53	38,417.53

The Commission directs the Petitioner to submit its actual O&M Expenses based on the audited financial statement during finalisation of the project cost after execution of the said project.

5.3. Depreciation:

Regulation 15 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides as follows:

- (1) *The value base for the purpose of depreciation shall be the capital cost of the project admitted by the Commission. The salvage value of the project shall be considered as 10%, and depreciation shall be allowed up to a maximum of 90% of the capital cost of the project:
Provided that no depreciation shall be allowed to the extent of grant or capital subsidy received for the project.*
- (2) *Depreciation rate of 4.67% per annum shall be considered for the first 15 years and the remaining depreciation shall be evenly spread during the remaining Useful Life of the project.*
- (3) *Depreciation shall be computed from the first year of commercial operation: Provided that, for determination of project specific tariff, in case of commercial operation of the project for part of the year, depreciation shall be computed on a pro rata basis.*

The above provisions as given in the CERC RE Regulations, 2024 has been considered for determining the depreciation in this order. The details of depreciation as approve by the Commission is as follows:

Table 6: Depreciation**(Rs. in Lakhs)**

Name of the Project	Date of COD (assumed)	Capital Cost (Rs. Lakh) (Approved)	Total useful Life (Years)	Depreciation per year upto 15 th Year	Depreciation per year after 15 th year onwards
3X2.7 MW Lower Likhimro Hydro Power Plant	36 months	9,632.12	40	449.82	76.86

5.4. Interest on Loan Capital:

The petitioner has submitted the rate of interest as 9.75% p.a. on reducing balance and tenure of loan as 06 years.

Regulation 14 (1) of The Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides that,

“For determination of generic tariff and project specific tariff, loan tenure of 15 years shall be considered.”

Further, Regulation 14 (2) of the CERC (Renewable Energy) Regulation, 2024 provides that:

“(2) Interest on Loan

- (a) The loans arrived at in the manner indicated in Regulation 13 shall be considered as gross normative loans for the calculation of interest on loans. For project specific tariff, the normative loan outstanding as on the 1st of April of every year shall be worked out by deducting the cumulative repayment up to the 31st of March of the previous year from the gross normative loan.*
- (b) For the purpose of computation of tariff, the normative interest rate of two hundred (200) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months shall be considered.*
- (c) Notwithstanding any moratorium period availed by the project developer, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.”*

The Commission sought the details of the actual loan details for prudence check of the financing plan for execution of the project, However, the Petitioner

vide data gap reply submitted that it has not executed any loan agreement with the financial institutions and claimed interest on the normative loan balance. Further, it has considered the applicable SBI MCLR for rate of Interest on normative loan balance.

The Commission has computed the State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) as applicable during last available 06 months of FY 2024-25 for computation of Rate of Interest on Normative Loan. The details computation of Rate of Interest is as follows:

Table 7: Rate of Interest on Normative Loan (Rs. in Lakhs)

From Date	To Date	Base Rate	Period	Amount
01-04-2024	14-04-2024	8.65	14	121.10
15-04-2024	14-05-2024	8.65	30	259.50
15-05-2024	14-06-2024	8.65	31	268.15
15-06-2024	14-07-2024	8.75	30	262.50
15-07-2024	14-08-2024	8.85	31	274.35
15-08-2024	14-09-2024	8.95	31	277.45
15-09-2024	30-09-2024	8.95	16	143.20
			183	1,606.25
Interest Rate (as per norms)				8.78
Add 200 Basis points = 2%				2.00
Rate of Interest on Normative Loan				10.78%

The interest rate of 9.75% as claimed by the petitioner is within the upper limit as per CERC Regulations. Therefore, the Commission has considered the same for computation of Interest on Normative loan.

Based on above and further approved Normative Loan base, the Commission has computed the Interest on Loan for determination of Tariff for 3X2.7 MW Likhimro Hydro Electric Power Plant. Further, the Commission has considered repayment of loan as equal to annual depreciation for the respective year in accordance with Regulation 14(2)(c) of the CERC (Renewable Energy) Regulation, 2024. The Details of the claim of the Petitioner & approved interest loan is as follows:

Table 8: Interest on Normative Loan (Rs. in Lakhs)

Particulars	Unit	Claimed	Approved
Total Project Cost	Rs. Lakhs	9,632.12	9,632.12
Total Normative Loan Considered	%	72%	72%
Total Normative Loan Considered	Rs. Lakhs	6,975.99	6,975.99
Rate of Interest Considered	%	9.75%	9.75%

Particulars	Unit	Claimed	Approved
Total Interest on Normative Loan	Rs. Lakhs	2125.50	2,040.48

The Commission further directs the Petitioner to submit its actual loan portfolio along with loan agreement during finalisation of the capital cost for 3X2.7 MW Likhimro Hydro Electric Power Plant.

5.5. Interest on Working Capital:

Regulation 17 (1) of The Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides as follows:

“(1) The Working Capital requirement in respect of wind power projects, small hydro projects, solar PV power projects, floating solar projects, solar thermal power projects, municipal solid wastebased power projects and refuse derived fuel based power projects and renewable energy with storage projects shall be computed in accordance with the following:

- a) Operation and Maintenance expenses for one month;*
- b) Receivables equivalent to 45 days of tariff for the sale of electricity calculated on the normative Capacity Utilisation Factor or Plant Load Factor, as the case may be; and*
- c) Maintenance spares equivalent to 15% of Operation and Maintenance expenses.”*

Regulation 17 (4) of The Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides for the rate to be considered for interest on working capital. The provisions are reproduced below:

“(4) Interest on Working Capital shall be at an interest rate equivalent to the normative interest rate of three hundred and twenty-five (325) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months.”

The above regulation provides that the normative interest rate shall be 3.25% above the State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months. The six months average of the State Bank of India MCLR (One Year Tenure) is 8.78%,

accordingly, allowable rate of interest on working capital is 12.03% (8.78%+3.25%).

The Petitioner has claimed the rate of Interest on Working Capital at 9.75% which is within the normative limits prescribed by the CERC Regulations. Therefore, the Commission has considered the same for computation of Interest on Working Capital.

The Petitioner has claimed Rs. 1259.79 Lakhs towards Interest on working Capital for execution of the project. Therefore, the Commission approves the Interest on Working Capital of Rs. 1259.79 Lakhs as claimed by the Petitioner.

The details of approved Interest on Working Capital along with claimed figures is as follows:

Table 9: Interest on Working Capital (Rs. in Lakhs)

Particulars	Unit	Claimed	Approved
Total Working Capital Requirement	Rs. Lakhs	12,854.95	12,854.95
Rate of Interest	%	9.75%	9.75%
Interest on Working Capital	Rs. Lakhs	1,259.79	1,259.79

5.6. Return on Equity:

Regulation 16 of The Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides for the Return on Equity. The provisions are reproduced below:

- “(1) *The value base for equity shall be as determined under Regulation 13.*
- (2) *The normative Return on Equity for renewable energy projects other than small hydro projects shall be 14%, and that for the small hydro projects shall be 15%. The normative Return on Equity shall be grossed up by the latest available notified Minimum Alternate Tax (MAT) rate for the first 20 years of the Tariff Period and by the latest available notified Corporate Tax rate for the remaining Tariff Period.”*

It is observed that the Petitioner has claimed Debt:Equity ratio of 70:30 for execution of the project. However, while computing normative Debt and Equity base it has not considered the Interest During Construction (IDC).

Regulation 12 of the CERC MYT Tariff Regulations, 2024 provides that the Capital Cost shall be inclusive of land cost, pre-development cost, commissioning, financing cost and interest during construction.

The Petitioner vide its data gap reply submitted that it has not considered the IDC for computing the Equity base and claimed Equity as Rs. 2656.12 Lakhs which is 28% of the total project cost including IDC.

Therefore, the Commission has considered the equity base as Rs. 2656.12 Lakhs for computation of normative Equity base and balance as normative debt.

Further, the Petitioner has not claimed any Minimum Alternative Tax (MAT) while computing the RoE. Therefore, the Commission at this stage has not considered any MAT rate for grossing up the applicable RoE.

Based on the above, the details of Return on Equity as approved by the Commission along with claimed figures is as follows:

Table 10: Return on Equity

(Rs. in Lakhs)

Sl. No.	Particulars	Unit	Claimed	Approved
1	Total Project Cost	Rs. Lakhs	9,632.12	9,632.12
2	Total Equity Considered	%	28%	28%
3	Total Equity Considered	Rs. Lakhs	2,656.12	2,656.12
4	Rate of Return on Equity	%		15.00%
5	Rate of RoE Grossed up with MAT Rate	%		15.00%
6	Rate of RoE grossed up with Corporate Tax Rate	%		15.00%
7	Total RoE	Rs. Lakhs	15,936.75	15,936.75

6. Designed Energy

6.1. Calculation of CUF/PLF:

Regulation 18 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides as follows:

“The number of hours in a year for calculation of Capacity utilization factor and plant load factor, as the case may be, shall be considered as 8766.”

Further, Regulations 28 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides for the CUF. The provisions are reproduced below:

“The normative capacity utilization factor for the small hydro projects located in Himachal Pradesh, Uttarakhand, West Bengal, Jammu and Kashmir, Ladakh, North-Eastern States and Odisha shall be 45%; for Punjab, it shall be 40% and for other States, it shall be 30%.”

Based on the above, the Commission deems it fit to allow the CUF of 45% for 3X2.7 MW Likhimro Hydro Electric Power Plant.

Further, Regulation 29 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides for the Auxiliary Consumption. The provisions are reproduced below:

“Normative auxiliary consumption for the small hydro projects shall be considered as 1.0%”

In view of the claim of the Petitioner, the Commission considered the auxiliary consumption at 1% for computation of Net saleable Energy.

6.2. Useful Life of the Project:

Regulations 2(hh)(iv) of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides for the useful life of the generating station. The provisions are reproduced below:

“‘Useful Life’ in relation to project, including dedicated evacuation system, from the date of commercial operation of such project, shall mean the following: -

.....

iv. Small Hydro Project 40 years.

.....”

In view of the above, useful life of the plant for determination of Tariff has been considered as 40 years.

6.3. Tariff Design

Regulations 10 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024 provides for the tariff on levelled basis for the Tariff period. The provisions are reproduced below:

- (1) The generic tariff shall be determined, on a levelized basis, considering the year of commissioning of the project, for the tariff period of the project: Provided that for renewable energy projects having a single part tariff with two components, the fixed cost component shall be determined on a levelized basis considering the year of commissioning of the project while the fuel cost component shall be determined on a year of operation basis in the Tariff Order to be issued by the Commission.*
- (2) For the purpose of levelized tariff computation, a discount factor equivalent to the post-tax weighted average cost of capital shall be considered.*
- (3) The above principles shall also apply for project specific tariffs.”*

The above provisions have been considered for determining the levelled tariff for the useful life of the project. Further, the discount factor for the purpose of levelled tariff computation has been considered at post-tax weighted average cost of capital of 9.23%.

6.4. Annual Fixed Charges & Tariff:

Based on the parameters approved above, the Annual Fixed Charges (AFC) & levelled Tariff for the 3X2.7 MW Likhimro Hydro Electric Power Plant has been determined. The details of Annual Fixed Charges & levelled Tariff for the project life of 40 year is provided in the Tables below.

Table 11: Annual Fixed Charges

(Rs. in Lakhs)

YEAR	Annual Fixed Charges (Rs. in Lakh)					
	O&M Expense	Return on Equity	Interest on Loan	Depreciation	Interest on Working Capital	Total
1st Year	299.13	398.42	623.48	449.82	20.91	1,791.76
2nd Year	314.84	398.42	510.12	449.82	21.16	1,694.36
3rd Year	331.37	398.42	396.76	449.82	21.43	1,597.79
4th Year	348.76	398.42	283.40	449.82	21.70	1,502.11
5th Year	367.07	398.42	170.04	449.82	22.00	1,407.35
6th Year	386.34	398.42	56.68	449.82	22.31	1,313.57
7th Year	406.63	398.42	-	449.82	22.63	1,277.50
8th Year	427.98	398.42	-	449.82	22.97	1,299.19
9th Year	450.44	398.42	-	449.82	23.33	1,322.01
10th Year	474.09	398.42	-	449.82	23.71	1,346.04
11th Year	498.98	398.42	-	449.82	24.11	1,371.33
12th Year	525.18	398.42	-	449.82	24.53	1,397.95
13th Year	552.75	398.42	-	449.82	24.97	1,425.96
14th Year	581.77	398.42	-	449.82	25.43	1,455.44
15th Year	612.31	398.42	-	449.82	25.92	1,486.47
16th Year	644.46	398.42	-	76.86	26.44	1,146.18
17th Year	678.29	398.42	-	76.86	26.98	1,180.56
18th Year	713.90	398.42	-	76.86	27.55	1,216.74
19th Year	751.38	398.42	-	76.86	28.15	1,254.82
20th Year	790.83	398.42	-	76.86	28.78	1,294.90
21st Year	832.35	398.42	-	76.86	29.44	1,337.08
22nd Year	876.05	398.42	-	76.86	30.14	1,381.48
23rd Year	922.04	398.42	-	76.86	30.88	1,428.20
24th Year	970.45	398.42	-	76.86	31.65	1,477.39
25th Year	1,021.40	398.42	-	76.86	32.47	1,529.15
26th Year	1,075.02	398.42	-	76.86	33.33	1,583.63
27th Year	1,131.46	398.42	-	76.86	34.23	1,640.97
28th Year	1,190.86	398.42	-	76.86	35.18	1,701.33
29th Year	1,253.38	398.42	-	76.86	36.18	1,764.85
30th Year	1,319.18	398.42	-	76.86	37.24	1,831.70
31st Year	1,388.44	398.42	-	76.86	38.35	1,902.07
32nd Year	1,461.33	398.42	-	76.86	39.51	1,976.13
33rd Year	1,538.05	398.42	-	76.86	40.74	2,054.08
34th Year	1,618.80	398.42	-	76.86	42.03	2,136.12
35th Year	1,703.79	398.42	-	76.86	43.39	2,222.47
36th Year	1,793.24	398.42	-	76.86	44.82	2,313.35
37th Year	1,887.38	398.42	-	76.86	46.33	2,409.00

YEAR	Annual Fixed Charges (Rs. in Lakh)					
	O&M Expense	Return on Equity	Interest on Loan	Depreciation	Interest on Working Capital	Total
38th Year	1,986.47	398.42	-	76.86	47.92	2,509.67
39th Year	2,090.76	398.42	-	76.86	49.59	2,615.63
40th Year	2,200.53	398.42	-	76.86	51.34	2,727.15

Based on the approved AFC and considering the net saleable energy, the Commission has computed the levelized Tariff for the project life of 40 year as below:

Table 12: Calculation of Net Generation (in MUs)

Year	Installed Capacity	Capacity Utilization Factor	Gross Generation	Auxiliary Consumption	Net Generation
	MW	%	Kwh	Kwh	MU
Each Year of the Project Life	8.1	45%	31.9302	1.00%	31.61

Table 13: Approved Levellised Tariff (in Rs.)

Particulars	Claimed	Computed by the Commission
Total of Tariff	48.17	49.96
Total of Discounting Factor	10.25	10.61
Levellised tariff - 40 years - Rs./unit	4.70	4.71

Based on the above paras, the net levellised tariff for 40 years is computed as Rs.4.71/ Unit.

It is observed that the Petitioner has claimed levellised Tariff for the project at Rs. 4.70/Unit inclusive of taxes.

Further, the Petitioner has also agreed to the levellised tariff of Rs. 4.70/Unit in negotiation meeting on 08.08.2024 with the Department of Power, Government of Nagaland vide their letter Dt.24.09.2024.

In view of the above, the Commission hereby approves the levellised Tariff for 3X2.7 MW Likhimro Hydro Power Plant as Rs. 4.70/kWh for 40 Years of the Project. The above tariff is firm for the life of the project and approved after considering all applicable taxes etc. and no escalation on account of price variation and taxes such as GST etc. shall be admissible.

By Order of the Commission.

Place: Kohima.

Dated: the 11th March, 2025.

Sd/-
Er. HEKAVI N AYEMI
Deputy Director,
Nagaland Electricity Regulatory
Commission, Kohima

7. DIRECTIVES

1. Actual Capital Expenditure:

The petitioner is directed to work out the Actual Capital Expenditure incurred up to the Date of Commercial Operation of the Generating Station.

2. Filing of Final Tariff Petition:

The Commission directs the petitioner to file the petition along with the Actual Capital Cost duly Audited and Certified by the Statutory Authority from the date of Commercial Operation as prescribed under MYT Regulation for determination of the Final Tariff.

3. Fixed Asset Register:

The Commission directs the petitioner to maintain Fixed Asset Register at their end and submit to the Commission on yearly basis from the date of Commercial Operation of the plant.

4. Status and Compliance Report:

The Project developer is directed to submit the Status and Compliance Report of the above Directives to the Commission every 3 months from the date of issue of this Order.

5. Penalty:

Penalty for non-compliance of the directives of the Commission shall be dealt with as per relevant Section of the Indian Electricity Act, 2003.

ANNEXURE

Table-1 Basic Parameters

Sl.no.	Parameters	Method	Units	Value	Remarks
1	Capacity		MW	8.1	Evaluated as per Head & Hydrological Data
2	CUF (Capacity Utilization Factor) / PLF (Plant Load Factor)			45.00%	As Per CERC-Renewable Energy Tariff Regulation, 2024: Chapter-4, clause 28
3	Units Generated (KWh)		MU	31.93	Energy available for sale(ii), AHEC-IITR/MNRE/SHP Standards/ 1.6 General - Economic & Financial Analysis and Tariff Determination: Plant availability – During the operation there may be some forced outage due to emergency shut downs and unplanned maintenance etc. On account of forced outage 5% of gross energy generated at generator terminal may be considered for deduction.
4	Less: Auxiliary consumption			1.0%	Energy available for sale(i), AHEC-IITR/MNRE/SHP Standards/ 1.6 General - Economic & Financial Analysis and Tariff Determination: Auxiliary consumption – The energy consumed by auxiliary equipment of the power generating station and transformer losses within the generating station are considered as auxiliary consumption. This may be taken as 1% of gross energy generated at generator terminal. As Per CERC-Renewable Energy Tariff Regulation, 2024: Chapter-4, clause 29
5	Units available for sale		MU	31.61	
6	Sale price Non-preferential Tariff		levelised tariff for 40 years		As per PPA
7	Useful life		in years	40	As Per CERC-Renewable Energy Tariff Regulation, 2024: Useful Life Point (HH)
8	Tariff period		in years	40	As per PPA.
9	Debt Equity Ratio				As Per CERC-Renewable Energy Tariff Regulation, 2024: Chapter 4, clause 27 & Chapter- 2, clause 13
a.	Debt		70%	67.42	96.32
b.	Equity		30%	28.90	
10	Construction period		in months	36	
11	Repayment quarterly		No. of installment	36	Negotiated
12	Repayment quarterly		Rs. In lacs	193.78	
13	Subsidy		Rs. In lacs	NIL	As per UNNATI 2024; Subsidy to be received in the second year after COD)
14	Interest rate on loan (Working capital)		in percentage	9.75%	
15	IDC		in percentage	9.25%	
16	Term Loan		in percentage	9.75%	For the purpose of computation of tariff, normative interest rate of two hundred (200) basis points above the average State Bank of India MCLR (Marginal Cost Lending Rate -one year tenor) prevalent during the last available six months is considered, as per CERC-Renewable Energy Tariff Regulation, 2024, Chapter 2, clause 14.
17	Return on equity			15.00%	Sub-Regulation (2) of Regulation 16 of the CERC RE Tariff Order 2019-20 stipulates the normative Return on Equity (ROE) as 17.60% (after grossing up by prevailing MAT rate of 20.46%) (Avg. MAT rate) as on 1 April 2018) for the useful life of the project. As Per CERC-Renewable Energy Tariff Regulation, 2024 Chapter -2, clause 16.
18	Discount rate			9.0795%	(10.52% x 70% x (1-27.82%))+17.6%x30% (rate of Return on Equity (ROE) is considered at post tax rate of 17.6 %)
19	OTHER EXPENSES				
a.	Depreciation				
	Depreciation for 1st 15 years	SLM Method		4.67%	DEPRECIATION 24. Regulation 15 of the CERC RE Tariff Order 2024-25 provides for computation of depreciation in the following manner: (1) "The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The Salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset. (2) Depreciation rate of 4.67% per annum for first 15 years and remaining depreciation to be spread during remaining useful life of the RE projects considering the salvage value of the project as 10% of project cost shall be considered. (3) Depreciation shall be chargeable from the first year of commercial operation. Provided that in case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis". As Per CERC-Renewable Energy Tariff Regulation, 2024 : Chapter-2, clause 15.
	Depreciation for remaining period	SLM Method			

b.	O&M Expenses	299.13	Small Hydro: CERC RE Tariff Order 2024 provides for the normative O&M expenses for small hydro projects for the first year of the Control Period which shall be escalated at the rate of 5.25% per annum over the tariff period for determination of the levelised tariff. Accordingly, from the table, the O&M cost for SHP as specified by the Commission for FY 2024-25 is 36.93 lacs/MW. As Per CERC-Renewable Energy Tariff Regulation, 2024. : Chapter-2, clause 19 & Chapter-4, clause 30.
c.	Annual escalation of O&M expenses	5.89%	
d.	Income Tax as per Normal provision(Income tax rate @ 27.82% (25% IT rate + 7% surcharge + 4% Health and Education cess)	27.82%	
20	Levelized Tariff (In Rs.)	4.70	

Table-2 Abstract of Project-costs & Means of Finance

Sl. No.	Particulars	Amount (in lakhs)
A	Civil works	4,766.70
	<i>Trench Weir</i>	434.85
	<i>Power Channel</i>	187.32
	<i>Desilting Basin</i>	468.30
	<i>Water Conductor System</i>	2,342.20
	<i>Surge Shaft</i>	301.05
	<i>Power House and Tail Race</i>	883.08
	<i>Land Acquisition</i>	149.90
B.	Cost of EM works	2,943.60
	<i>Power Plant + Erection (E&M)</i>	2,500.00
	<i>Transmission line / Distribution</i>	443.60
C.	Cost of HM works	334.50
	<i>Penstock</i>	334.50
D.	Contingencies	156.90
	<i>Preliminary & Environmental Exp</i>	156.90
E.	Project Managements & Other Services	420.08
I	Total (A + B + C + D + E)	8,621.78
II	Financing Charges	69.59
III	Interest During Construction (IDC)	940.75
	Project Cost (I + II + III)	9,632.12
	MEANS OF FINANCE	
1	Equity (30% of Project Cost, including Finance charges)	2,656.12
2	Debt without IDC (70% of Project Cost)	6,035.25
3	IDC	940.75
	Total Capitalised Cost	9,632.12

Table-3 Computation of IDC

Debt	67
Equity	29
Interest During Construction (IDC)	9.25%

Interest During Construction (IDC)

Months	1	2	3	4	5	6
Phasing of expenditure (%)	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
Phasing of expenditure	238.82	238.82	238.82	238.82	238.82	238.82
Phasing of Debt	167.18	167.18	167.18	167.18	167.18	167.18
Phasing of Equity	71.65	71.65	71.65	71.65	71.65	71.65

7	8	9	10	11	12	13	14	15
2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
238.82	238.82	238.82	238.82	238.82	238.82	238.82	238.82	238.82
167.18	167.18	167.18	167.18	167.18	167.18	167.18	167.18	167.18
71.65	71.65	71.65	71.65	71.65	71.65	71.65	71.65	71.65

16	17	18	19	20	21	22	23	24
2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
238.82	238.82	238.82	238.82	238.82	238.82	238.82	238.82	238.82
167.18	167.18	167.18	167.18	167.18	167.18	167.18	167.18	167.18
71.65	71.65	71.65	71.65	71.65	71.65	71.65	71.65	71.65

25	26	27	28	29	30	31	32	33	34
2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
238.82	238.82	238.82	238.82	238.82	238.82	238.82	238.82	238.82	238.82
167.18	167.18	167.18	167.18	167.18	167.18	167.18	167.18	167.18	167.18
71.65	71.65	71.65	71.65	71.65	71.65	71.65	71.65	71.65	71.65

35	36	Total
2.8%	2.8%	100%
238.82	238.82	8597.64
167.18	167.18	6018.35
71.65	71.65	2579.29

Calculation of Interest During Construction

Months	Period	Opening Balance	Loan During the Month	IDC	Closing Balance
1		0	167.18	1.29	168.46
2		168.46	167.18	2.59	338.23
3		338.23	167.18	3.90	509.30
4		509.30	167.18	5.21	681.69
5		681.69	167.18	6.54	855.41
6		855.41	167.18	7.88	1030.47
7		1030.47	167.18	9.23	1206.88
8		1206.88	167.18	10.59	1384.65
9		1384.65	167.18	11.96	1563.78
10		1563.78	167.18	13.34	1744.30
11		1744.30	167.18	14.73	1926.21
12		1926.21	167.18	16.14	2109.53
13		2109.53	167.18	17.55	2294.25
14		2294.25	167.18	18.97	2480.40
15		2480.40	167.18	20.41	2667.99
16		2667.99	167.18	21.85	2857.02
17		2857.02	167.18	23.31	3047.51
18		3047.51	167.18	24.78	3239.46
19		3239.46	167.18	26.26	3432.90
20		3432.90	167.18	27.75	3627.82
21		3627.82	167.18	29.25	3824.25
22		3824.25	167.18	30.77	4022.20
23		4022.20	167.18	32.29	4221.67
24		4221.67	167.18	33.83	4422.67
25		4422.67	167.18	35.38	4625.23
26		4625.23	167.18	36.94	4829.35
27		4829.35	167.18	38.51	5035.04
28		5035.04	167.18	40.10	5242.32
29		5242.32	167.18	41.70	5451.19
30		5451.19	167.18	43.31	5661.68
31		5661.68	167.18	44.93	5873.78
32		5873.78	167.18	46.57	6087.52
33		6087.52	167.18	48.21	6302.91
34		6302.91	167.18	49.87	6519.96
35		6519.96	167.18	51.55	6738.69
36		6738.69	167.18	53.23	6959.10
			6018.35	940.75	
Financing Charges			69.59		

31	32	33	34	35	36	37	38	39	40
31.93	31.93	31.93	31.93	31.93	31.93	31.93	31.93	31.93	31.93
31.61	31.61	31.61	31.61	31.61	31.61	31.61	31.61	31.61	31.61
1,388.44	1,461.33	1,538.05	1,618.80	1,703.79	1,793.24	1,887.38	1,986.47	2,090.76	2,200.53
-	-	-	-	-	-	-	-	-	-
38.35	39.51	40.74	42.03	43.39	44.82	46.33	47.92	49.59	51.34
398.42	398.42	398.42	398.42	398.42	398.42	398.42	398.42	398.42	398.42
1825.21	1899.27	1977.21	2059.25	2145.60	2236.48	2332.13	2432.81	2538.77	2650.29
5.77	6.01	6.25	6.51	6.79	7.08	7.38	7.70	8.03	8.38
0.0487	0.0441	0.0398	0.0360	0.0326	0.0295	0.0266	0.0241	0.0218	0.0197
0.28	0.26	0.25	0.23	0.22	0.21	0.20	0.19	0.17	0.17

Table-5 Computation of Interest and Schedule of Term Loan Repayment

Year	Quarter	Subsidy	Loan at the beginning of the quarter	Principal repayment during the quarter	Interest during the quarter	Balance loan at the end of the quarter	Annual interest payment	Annual Principal payment	Total Repayment
1	1		6975.99	290.67	170.04	6685.33	637.65	1162.67	1800.32
	2		6685.33	290.67	162.95	6394.66			
	3		6394.66	290.67	155.87	6104.00			
	4		6104.00	290.67	148.78	5813.33			
2	5		5813.33	290.67	141.70	5522.66	524.29	1162.67	1686.96
	6		5522.66	290.67	134.61	5232.00			
	7		5232.00	290.67	127.53	4941.33			
	8		4941.33	290.67	120.44	4650.66			
3	9		4650.66	290.67	113.36	4360.00	410.93	1162.67	1573.60
	10		4360.00	290.67	106.27	4069.33			
	11		4069.33	290.67	99.19	3778.66			
	12		3778.66	290.67	92.10	3488.00			
4	13		3488.00	290.67	85.02	3197.33	297.57	1162.67	1460.24
	14		3197.33	290.67	77.93	2906.66			
	15		2906.66	290.67	70.85	2616.00			
	16		2616.00	290.67	63.76	2325.33			
5	17		2325.33	290.67	56.68	2034.67	184.21	1162.67	1346.88
	18		2034.67	290.67	49.59	1744.00			
	19		1744.00	290.67	42.51	1453.33			
	20		1453.33	290.67	35.42	1162.67			
6	21		1162.67	290.67	28.34	872.00	70.85	1162.67	1233.52
	22		872.00	290.67	21.25	581.33			
	23		581.33	290.67	14.17	290.67			
	24		290.67	290.67	7.08	0.00			
7	25		0.00		0.00	0.00	0.00	0.00	0.00
	26		0.00		0.00	0.00			
	27		0.00		0.00	0.00			
	28		0.00		0.00	0.00			
8	29		0.00	-	0.00	0.00	0.00	0.00	0.00
	30		0.00		0.00	0.00			
	31		0.00		0.00	0.00			
	32		0.00		0.00	0.00			
9	33		0.00		0.00	0.00	0.00	0.00	0.00
	34		0.00		0.00	0.00			
	35		0.00		0.00	0.00			
	36		0.00		0.00	0.00			

21	22	23	24	25	26	27	28	29	30	31
1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14
832.35	876.05	922.04	970.45	1021.40	1075.02	1131.46	1190.86	1253.38	1319.18	1388.44
235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00
124.85	131.41	138.31	145.57	153.21	161.25	169.72	178.63	188.01	197.88	208.27
69.36	73.00	76.84	80.87	85.12	89.59	94.29	99.24	104.45	109.93	115.70
429.22	439.41	450.15	461.44	473.33	485.84	499.01	512.87	527.46	542.81	558.97
128.77	131.82	135.04	138.43	142.00	145.75	149.70	153.86	158.24	162.84	167.69
300.45	307.59	315.10	323.01	331.33	340.09	349.31	359.01	369.22	379.97	391.28
29.44	30.14	30.88	31.65	32.47	33.33	34.23	35.18	36.18	37.24	38.35

32	33	34	35	36	37	38	39	40
1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14	1906.14
1461.33	1538.05	1618.80	1703.79	1793.24	1887.38	1986.47	2090.76	2200.53
235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00
219.20	230.71	242.82	255.57	268.99	283.11	297.97	313.61	330.08
121.78	128.17	134.90	141.98	149.44	157.28	165.54	174.23	183.38
575.98	593.88	612.72	632.55	653.43	675.39	698.51	722.85	748.46
172.79	178.16	183.82	189.77	196.03	202.62	209.55	216.85	224.54
403.19	415.72	428.91	442.79	457.40	472.77	488.96	505.99	523.92
39.51	40.74	42.03	43.39	44.82	46.33	47.92	49.59	51.34

Regulation 17 of the CERC RE Tariff Order (2023-24) provides for the working capital requirements of the RE projects as under:

- (1) The Working Capital requirement in respect of Small Hydro Power shall be computed in accordance with the following:
 - a. Operation & Maintenance expenses for one month;
 - b. Receivables equivalent to 45 days of energy charges for the sale of electricity calculated on the normative CUF;
 - d. Maintenance spare @15% of operation and maintenance expenses

Table-7 Profitability Statement

Details		1	2	3
BENEFITS				
Net Saleable energy		31.61	31.61	31.61
Energy Unit Price		4.70	4.70	4.70
Turnover		1,485.31	1,485.31	1,485.31
REC		33.71	33.71	33.71
Total Revenue		1,519.02	1,519.02	1,519.02
EXPENSES				
Construction Cost				
O&M Expenses		299.13	314.84	331.37
Total expenses before Tax		299.13	314.84	331.37
Profit before Int, depr. & tax		1,219.89	1,204.19	1,187.66
Depreciation		457.72	457.72	457.72
Interest on Term Loan		637.65	524.29	410.93
Interest on WC		20.91	21.16	21.43
Total expenses for IT calculation		1415.4	1318.0	1221.4
Operational profit before Tax		1103.61	1201.02	4297.58
Mat @ 20.5868% till 1st to 5th year and income tax from 6th to 20th years		21.33	41.38	61.26
Profit after Tax		82.28	159.63	236.32
Add depr.		457.72	457.72	457.72
Cash accruals before loan installment		540.00	617.35	694.04
Installment for loan repayment		1162.6	1162.6	1162.6
Cash accruals after loan installment		7622.66	7545.31	7468.63
Discount Rate		9.0795%	9.0795%	9.0795%
Turnover		1,519.02	1,519.02	1,519.02
Discounting Factor @ 10.5953%		1.0000	0.9042	0.8176
NPV Turnover		1,519.02	1,373.50	1,241.91
Expenses		1415.4	1318.0	1221.4
NPV Expenses		1,415.41	1,191.74	998.62
Benefit-Cost Rao	1.30			

4	5	6	7	8	9	10
31.61	31.61	31.61	31.61	31.61	31.61	31.61
4.70	4.70	4.70	4.70	4.70	4.70	4.70
1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31
33.71	33.71	33.71	33.71	33.71	33.71	33.71
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
348.76	367.07	386.34	406.63	427.98	450.44	474.09
348.76	367.07	386.34	406.63	427.98	450.44	474.09
1,170.26	1,151.95	1,132.68	1,112.40	1,091.05	1,068.58	1,044.93
457.72	457.72	457.72	457.72	457.72	457.72	457.72
297.57	184.21	70.85				
21.70	22.00	22.31	22.63	22.97	23.33	23.71
1125.76	1031.00	937.22	886.98	908.67	931.49	955.52
393.27	488.03	581.81	632.05	610.36	587.53	563.50
80.96	100.47	161.86	175.84	169.80	163.45	156.77
312.31	387.56	419.95	456.21	440.56	424.08	406.74
457.72	457.72	457.72	457.72	457.72	457.72	457.72
770.03	845.27	877.67	913.93	898.27	881.80	864.45
1162.67	1162.67	1162.67	0.00	0.00	0.00	0
-392.64	-317.39	-285.00	913.93	898.27	881.80	864.45
9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
0.7392	0.6684	0.6044	0.5465	0.4941	0.4468	0.4040
1,122.93	1,015.35	918.08	830.13	750.60	678.69	613.67
1125.76	1031.00	937.22	886.98	908.67	931.49	955.52
832.21	689.15	566.44	484.72	449.00	416.19	386.02

11	12	13	14	15	16	17
31.61	31.61	31.61	31.61	31.61	31.61	31.61
4.70	4.70	4.70	4.70	4.70	4.70	4.70
1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31
33.71	33.71	33.71	33.71	33.71	33.71	33.71
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
498.98	525.18	552.75	581.77	612.31	644.46	678.29
498.98	525.18	552.75	581.77	612.31	644.46	678.29
1,020.04	993.84	966.27	937.25	906.71	874.56	840.73
457.72	457.72	457.72	457.72	457.72	388.37	388.37
24.11	24.53	24.97	25.43	25.92	26.44	26.98
980.81	1007.43	1035.44	1064.92	1095.95	1059.26	1093.64
538.21	511.60	483.59	454.10	423.07	459.76	425.38
149.73	142.33	134.53	126.33	117.70	127.91	
388.48	369.27	349.05	327.77	305.37	331.85	425.38
457.72	457.72	457.72	457.72	457.72	388.37	388.37
846.20	826.99	806.77	785.49	763.09	720.22	813.75
0	0	0	0	0	0	0
846.20	826.99	806.77	785.49	763.09	720.22	813.75
9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
0.3653	0.3303	0.2986	0.2700	0.2442	0.2208	0.1996
554.88	501.72	453.65	410.19	370.90	335.36	303.23
980.81	1007.43	1035.44	1064.92	1095.95	1059.26	1093.64
358.28	332.74	309.23	287.57	267.60	233.86	218.32

18	19	20	21	22	23	24
31.61	31.61	31.61	31.61	31.61	31.61	31.61
4.70	4.70	4.70	4.70	4.70	4.70	4.70
1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31
33.71	33.71	33.71	33.71	33.71	33.71	33.71
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
713.90	751.38	790.83	832.35	876.05	922.04	970.45
713.90	751.38	790.83	832.35	876.05	922.04	970.45
805.12	767.64	728.19	686.67	642.97	596.98	548.57
388.37	388.37	388.37	388.37	388.37	388.37	388.37
27.55	28.15	28.78	29.44	30.14	30.88	31.65
1129.82	1167.90	1207.98	1250.16	1294.56	1341.29	1390.47
389.20	351.12	311.04	268.86	224.46	177.73	128.55
389.20	351.12	311.04	268.86	224.46	177.73	128.55
388.37	388.37	388.37	388.37	388.37	388.37	388.37
777.57	739.49	699.41	657.23	612.83	566.10	516.92
0	0	0	0	0	0	0
777.57	739.49	699.41	657.23	612.83	566.10	516.92
9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
0.1805	0.1632	0.1476	0.1334	0.1207	0.1091	0.0986
274.18	247.92	224.16	202.69	183.27	165.71	149.84
1129.82	1167.90	1207.98	1250.16	1294.56	1341.29	1390.47
203.93	190.61	178.26	166.81	156.19	146.32	137.16

25	26	27	28	29	30	31
31.61	31.61	31.61	31.61	31.61	31.61	31.61
4.70	4.70	4.70	4.70	4.70	4.70	4.70
1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31
33.71	33.71	33.71	33.71	33.71	33.71	33.71
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
1021.40	1075.02	1131.46	1190.86	1253.38	1319.18	1388.44
1,021.40	1,075.02	1,131.46	1,190.86	1,253.38	1,319.18	1,388.44
497.63	444.00	387.56	328.16	265.64	199.84	130.58
388.37	388.37	388.37	388.37	388.37	388.37	388.37
32.47	33.33	34.23	35.18	36.18	37.24	38.35
1442.24	1496.72	1554.06	1614.41	1677.93	1744.79	1815.15
76.79	22.31	-35.04	-95.39	-158.91	-225.76	-296.13
76.79	22.31	-35.04	-95.39	-158.91	-225.76	-296.13
388.37	388.37	388.37	388.37	388.37	388.37	388.37
465.16	410.67	353.33	292.98	229.46	162.60	92.24
0	0	0	0	0	0	0
465.16	410.67	353.33	292.98	229.46	162.60	92.24
9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
0.0892	0.0806	0.0729	0.0659	0.0596	0.0539	0.0487
135.48	122.50	110.77	100.16	90.56	81.88	74.04
1442.24	1496.72	1554.06	1614.41	1677.93	1744.79	1815.15
128.63	120.70	113.32	106.44	100.03	94.05	88.47

32	33	34	35	36	37	38	39	40
31.61	31.61	31.61	31.61	31.61	31.61	31.61	31.61	31.61
4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70
1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31	1,485.31
33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71	33.71
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
1461.33	1538.05	1618.80	1703.79	1793.24	1887.38	1986.47	2090.76	2200.53
1,461.33	1,538.05	1,618.80	1,703.79	1,793.24	1,887.38	1,986.47	2,090.76	2,200.53
57.69	(19.03)	(99.78)	(184.77)	(274.21)	(368.36)	(467.45)	(571.74)	(681.50)
388.37	388.37	388.37	388.37	388.37	388.37	388.37	388.37	388.37
39.51	40.74	42.03	43.39	44.82	46.33	47.92	49.59	51.34
1889.21	1967.16	2049.20	2135.55	2226.43	2322.08	2422.76	2528.71	2640.24
-370.19	-448.14	-530.18	-616.53	-707.41	-803.06	-903.73	-1009.69	-1121.21
-370.19	-448.14	-530.18	-616.53	-707.41	-803.06	-903.73	-1009.69	-1121.21
388.37	388.37	388.37	388.37	388.37	388.37	388.37	388.37	388.37
18.18	-59.77	-141.81	-228.16	-319.04	-414.69	-515.37	-621.32	-732.85
0	0	0	0	0	0	0	0	0
18.18	-59.77	-141.81	-228.16	-319.04	-414.69	-515.37	-621.32	-732.85
9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%	9.0795%
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
0.0441	0.0398	0.0360	0.0326	0.0295	0.0266	0.0241	0.0218	0.0197
66.95	60.53	54.73	49.49	44.75	40.46	36.59	33.08	29.91
1889.21	1967.16	2049.20	2135.55	2226.43	2322.08	2422.76	2528.71	2640.24
83.26	78.39	73.84	69.58	65.59	61.85	58.35	55.07	51.99

Statement Showing computation of IRR (Internal Rate of Return)

		1	2	3	4
		1.4700500	47.0050000		
CFAT BEFORE INTEREST ON TERM LOAN		1177.65	1141.64	1104.97	1067.60
RE BENEFIT (NET OF TAX/AFTER INCOME TAX)		33.712	33.712	33.712	33.712
TOTAL CFAT AFTER RE BENEFITS		1211.362	1175.354	1138.681	1101.307
DISCOUNT FACTOR		1.0000	0.6802	0.4627	0.3148
PVCI		1,211.36	799.53	526.91	346.67
PVCO					
NPV					

5	6	7	8	9	10	11	12	13
1029.48	948.52	913.93	898.27	881.80	864.45	846.20	826.99	806.77
33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712
1063.197	982.227	947.642	931.987	915.509	898.166	879.913	860.702	840.482
0.2141	0.1457	0.0991	0.0674	0.0459	0.0312	0.0212	0.0144	0.0098
227.66	143.07	93.90	62.82	41.98	28.01	18.67	12.42	8.25

14	15	16	17	18	19	20	21	22
785.49	763.09	720.22	813.75	777.57	739.49	699.41	657.23	612.83
33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712
819.201	796.802	753.934	847.463	811.283	773.203	733.124	690.940	646.542
0.0067	0.0045	0.0031	0.0021	0.0014	0.0010	0.0007	0.0005	0.0003
5.47	3.62	2.33	1.78	1.16	0.75	0.49	0.31	0.20

23	24	25	26	27	28	29	30	31
566.10	516.92	465.16	410.67	353.33	292.98	229.46	162.60	92.24
33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712
599.814	550.632	498.867	444.386	387.044	326.691	263.170	196.315	125.949
0.0002	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
0.12	0.08	0.05	0.03	0.02	0.01	0.01	0.00	0.00

32	33	34	35	36	37	38	39	40
18.18	-59.77	-141.81	-228.16	-319.04	-414.69	-515.37	-621.32	-732.85
33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712
51.889	-26.059	-108.100	-194.447	-285.328	-380.980	-481.653	-587.612	-699.134
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.00	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

**Table 8 -Statement Showing computation of ARR
(Accounting/Average Rate of Return)**

		1	2	3	4	5
RE BENEFIT (NET OF TAX/AFTER INCOME TAX)	A	33.712	33.712	33.712	33.712	33.712
Profit after Tax	B	82.28	159.63	236.32	312.31	387.56
Total Post Tax Return per year	C	115.99	193.35	270.03	346.02	421.27
Total Post Tax Return in 20 years	D	7548.43				
Period of Project	E	20				
Average Return	F=D/E	377.42				
Initial Investment	G	9632.12				
Terminal Value	H	963.21				
Average Investment	$I = \frac{G+H}{2}$	5297.67				
ARR (in %)	$J = \frac{F \times 100}{I}$	7.12				

6	7	8	9	10	11	12	13	14
33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712	33.712
419.95	456.21	440.56	424.08	406.74	388.48	369.27	349.05	327.77
453.66	489.92	474.27	457.79	440.45	422.20	402.98	382.76	361.48

15	16	17	18	19	20
33.712	33.712	33.712	33.712	33.712	33.712
305.37	331.85	425.38	389.20	351.12	311.04
339.08	365.57	459.10	422.92	384.84	344.76

ARR= Post Tax Average Rate of Return over the period of project*100/Average Investment

Where Average Investment = (initial investment + Terminal Value of the project at the end of useful life of the project)/2

Statement Showing computation of NPV (NET PRESENT VALUE)

		1	2	3	4	5
TOTAL CFAT AFTER RE BENEFITS AND AFTER INTEREST ON TERM LOAN		573.713	651.065	727.751	803.737	878.987
Discounting Factor @ 10.5953%		1.0000	0.9042	0.8176	0.7393	0.6685
PVCI		573.71	588.70	595.01	594.20	587.59
PVCO						
NPV						

6	7	8	9	10	11	12	13
911.377	947.642	931.987	915.509	898.166	879.913	860.702	840.482
0.6045	0.5466	0.4942	0.4469	0.4041	0.3654	0.3304	0.2987
550.88	517.94	460.59	409.11	362.92	321.49	284.35	251.07

14	15	16	17	18	19	20	Total
819.201	796.802	753.934	847.463	811.283	773.203	733.124	
0.2701	0.2442	0.2208	0.1997	0.1806	0.1633	0.1476	
221.27	194.61	166.50	169.23	146.49	126.24	108.23	7,230.14
							9,632.12
							(2,401.98)

Statement Showing computation of BCR (Benefit Cost Ratio)

		1	2	3	4	5
Turnover		1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
RE receipts		47.42	47.42	47.42	47.42	47.42
Total Turnover		1,566.44	1,566.44	1,566.44	1,566.44	1,566.44
Discounting Factor @		1.0000	0.9042	0.8176	0.7392	0.6684
NPV Turnover	A	1,566.44	1,416.37	1,280.68	1,157.99	1,047.05
Total Expenses		1415.41	1318.01	1221.44	1125.76	1031.00
NPV Expenses	B	1415.41	1191.74	998.62	832.21	689.15
BCR (Benefit Cost Rao)	C=A/B					

6	7	8	9	10	11	12	13
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02
47.42	47.42	47.42	47.42	47.42	47.42	47.42	47.42
1,566.44	1,566.44	1,566.44	1,566.44	1,566.44	1,566.44	1,566.44	1,566.44
0.6044	0.5465	0.4941	0.4468	0.4040	0.3653	0.3303	0.2986
946.74	856.04	774.03	699.87	632.83	572.20	517.38	467.81
937.22	886.98	908.67	931.49	955.52	980.81	1007.43	1035.44
566.44	484.72	449.00	416.19	386.02	358.28	332.74	309.23

14	15	16	17	18	19	20	Total
1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	1,519.02	
47.42	47.42	47.42	47.42	47.42	47.42	47.42	
1,566.44	1,566.44	1,566.44	1,566.44	1,566.44	1,566.44	1,566.44	
0.2700	0.2442	0.2208	0.1996	0.1805	0.1632	0.1476	
423.00	382.47	345.83	312.70	282.74	255.65	231.16	14,168.99
1064.92	1095.95	1059.26	1093.64	1129.82	1167.90	1207.98	
287.57	267.60	233.86	218.32	203.93	190.61	178.26	10,009.89
							1.42

Statement Showing computation of PBP (Payback Period)

		1	2	3	4	5
Cost of Project	A	9632.12				
Annual Cash Inflows after Tax	B	573.71	651.06	727.75	803.74	878.99
Cumulative Annual Cash	c	573.71	1,224.78	1,952.53	2,756.27	3,635.25
PBP						

6	7	8	9	10	11	12	13
911.38	947.64	931.99	915.51	898.17	879.91	860.70	840.48
4,546.63	5,494.27	6,426.26	7,341.77	8,239.93	9,119.85	9,980.55	10,821.03
44.30 Months							

14	15	16	17	18	19	20
819.20	796.80	753.93	847.46	811.28	773.20	733.12
11,640.23	12,437.03	13,190.97	14,038.43	14,849.71	15,622.92	16,356.04

Table-9 Debt Service Coverage Ratio

YEAR	1	2	3	4	5	6	Total
PAT	82.28	159.63	236.32	312.31	387.56	419.95	
Interest on Term Loan	637.65	524.29	410.93	297.57	184.21	70.85	
Interest on Working Capital	20.91	21.16	21.43	21.70	22.00	22.31	
Depreciation (Non Cash Item)	457.72	457.72	457.72	457.72	457.72	457.72	
Non-Solar REC	33.71	33.71	33.71	33.71	33.71	33.71	
TOTAL (A)	1,232.27	1,196.51	1,160.11	1,123.01	1,085.19	1,004.53	6,801.63
Interest on Term Loan	637.65	524.29	410.93	297.57	184.21	70.85	2,125.50
Principal Repayment	1,162.67	1,162.67	1,162.67	1,162.67	1,162.67	1,162.67	6,975.99
TOTAL (B)	1,800.32	1,686.96	1,573.60	1,460.24	1,346.88	1,233.52	9,101.49
DSCR (C=A/B)	0.68	0.71	0.74	0.77	0.81	0.81	
Av. Debt Service Coverage Rati	0.75						
Minimum DSCR	0.68						
Maximum DSCR	0.81						
IRR							

Table -10 Statement Showing Computation of RE Benefits

	No. of Units of Saleable Energy	31610898	
	1 REC=1000KWH		
	Total Annual RECs for 8 MW	31610.898	
	Expected Discovered Price		
	Price Per REC (in Rs.)	150	
	Number of RECs	31610.898	
			(in Rs.)
a	REC value		47,41,634.70
b	12% GST on REC Trade value	12% on Trade value(a)	5,68,996.16
c	Exchange Charges	(Rs. 20/REC)	6,32,217.96
d	Exchange GST	18% on Exchange Charges	1,13,799.23
e	Assume Trading margin (Rs-10/REC)		3,16,108.98
f	GST ON TRADING MARGIN		56,899.62
	Total Earning from Sale of REC		30,53,612.75
	RE Receipts Net of Expenses		37,93,307.76
			(Rupees in Lakhs)
	RE RECEIPT		37.93
	INCOME TAX @ 11.128%		4.22
	Net of income Tax		33.71

CAPITAL COST

Sl. No.	Particulars	Unit	Claimed	Approved
1	Total Installed Capacity	MW	8.1	8.1
2	Capital Cost	Rs. Lakh/MW	1,189.15	1,189.15
3	Total Capital Cost	Rs. Lakh	9,632.12	9,632.12
4	Govt. Subsidy (If any)	Rs. Lakh	-	-
5	Net Capital Cost	Rs. Lakh	9,632.12	9,632.12

DEPRECIATION

Name of the Project	Date of COD (assumed)	Capital Cost (Rs. Lakh) (Approved)	Total useful Life (Years)	Depreciation per year upto 15th Year	Depreciation per year after 15th year onwards
3X2.7 MW Lower Likhimro Hydro Power Plant		9,632.12	40	449.82	76.86

Sl. No.	Particulars	Approved
1	Capital Cost (Rs. Lakh)	9,632.12
2	Rate of Depreciation (%)	4.67%
3	Depreciation per year upto 15 Years	449.82
4	Total Depreciation upto 15 Year	6,747.30
5	Depreciable Value (%)	90%
6	Net Depreciable Value (Rs. Lakh)	8,668.91
7	Remaining Amount for Depreciation	1,921.61
8	Total useful life	40
9	Remaining useful life	25
10	Depreciation per year after 15th year onwards	76.86

O&M EXPENSES

Sl. No.	Particulars	Unit	Claimed	Approved
1	Total Installed Capacity	MW	8.10	8.10
2	Total Project Cost	Rs. Lakh	9,632.12	9,632.12
3	Annual O&M Expense	Rs. Lakhs/MW	36.93	36.93
4	Annual O&M Expense	Lakh	299.13	299.13
5	Escalation Rate	%	5.25%	5.25%
6	Total Normative O&M Expenses	Lakh	38,417.53	38,417.53

Year	Claimed	Approved
1st Year	299.13	299.13
2nd Year	314.84	314.84
3rd Year	331.37	331.37
4th Year	348.76	348.76
5th Year	367.07	367.07
6th Year	386.34	386.34
7th Year	406.63	406.63
8th Year	427.98	427.98
9th Year	450.44	450.44
10th Year	474.09	474.09
11th Year	498.98	498.98
12th Year	525.18	525.18
13th Year	552.75	552.75
14th Year	581.77	581.77
15th Year	612.31	612.31
16th Year	644.46	644.46
17th Year	678.29	678.29
18th Year	713.90	713.90
19th Year	751.38	751.38
20th Year	790.83	790.83
21st Year	832.35	832.35
22nd Year	876.05	876.05
23rd Year	922.04	922.04
24th Year	970.45	970.45
25th Year	1021.40	1,021.40
26th Year	1075.02	1,075.02
27th Year	1131.46	1,131.46
28th Year	1190.86	1,190.86
29th Year	1253.38	1,253.38
30th Year	1319.18	1,319.18
31st Year	1388.44	1,388.44
32nd Year	1461.33	1,461.33
33rd Year	1538.05	1,538.05
34th Year	1618.80	1,618.80
35th Year	1703.79	1,703.79
36th Year	1793.24	1,793.24
37th Year	1887.38	1,887.38
38th Year	1986.47	1,986.47
39th Year	2090.76	2,090.76
40th Year	2200.53	2,200.53

RETURN ON EQUITY

Sl. No.	Particulars	Unit	Claimed	Approved
1	Total Project Cost	Rs. Lakhs	9,632.12	9,632.12
2	Total Equity Considered	%	28%	28%
3	Total Equity Considered	Rs. Lakhs	2,656.12	2,656.12
4	Rate of Return on Equity	%		15.00%
5	Rate of RoE Grossed up with MAT Rate	%		15.00%
6	Rate of RoE grossed up with Corporate Tax Rate	%		15.00%
7	Total RoE	Rs. Lakhs	15,936.75	15,936.75

The normative Return on Equity shall be 14%. The normative Return on Equity shall be grossed up by the latest available notified Minimum Alternate Tax (MAT) rate for the first 20 years of the Tariff Period and by the latest available notified Corporate Tax rate for the remaining Tariff Period.

RoE	MAT	CORPORATE RATE	Average RoE
Base rate	15%	15%	
Tax Rate			0.00%
Grossed up	15.00%	15.00%	15.00%

	Claimed	Approved
1st Year	398.42	398.42
2nd Year	398.42	398.42
3rd Year	398.42	398.42
4th Year	398.42	398.42
5th Year	398.42	398.42
6th Year	398.42	398.42
7th Year	398.42	398.42
8th Year	398.42	398.42
9th Year	398.42	398.42
10th Year	398.42	398.42
11th Year	398.42	398.42
12th Year	398.42	398.42
13th Year	398.42	398.42
14th Year	398.42	398.42
15th Year	398.42	398.42
16th Year	398.42	398.42
17th Year	398.42	398.42
18th Year	398.42	398.42
19th Year	398.42	398.42
20th Year	398.42	398.42
21st Year	398.42	398.42
22nd Year	398.42	398.42
23rd Year	398.42	398.42
24th Year	398.42	398.42
25th Year	398.42	398.42
26th Year	398.42	398.42
27th Year	398.42	398.42
28th Year	398.42	398.42
29th Year	398.42	398.42
30th Year	398.42	398.42
31st Year	398.42	398.42
32nd Year	398.42	398.42
33rd Year	398.42	398.42
34th Year	398.42	398.42
35th Year	398.42	398.42
36th Year	398.42	398.42
37th Year	398.42	398.42
38th Year	398.42	398.42
39th Year	398.42	398.42
40th Year	398.42	398.42

INTEREST ON NORMATIVE LOAN

Particulars	Unit	Claimed	Approved
Total Project Cost	Rs. Lakhs	9,632.12	9,632.12
Total Normative Loan Considered	%	72%	72%
Total Normative Loan Considered	Rs. Lakhs	6,975.99	6,975.99
Rate of Interest Considered	%	9.75%	9.75%
Total Interest on Normative Loan	Rs. Lakhs	2125.50	2,040.48

(b) For the purpose of computation of tariff, normative interest rate of two hundred (200) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months shall be considered.

Year	Opening balance	Repayment	Closing Balance	Average Loan	Rate of Interest	Interest
1st Year	6,975.99	1,162.67	5,813.33	6,394.66	9.75%	623.48
2nd Year	5813.33	1,162.67	4,650.66	5,232.00	9.75%	510.12
3rd Year	4650.66	1,162.67	3,488.00	4,069.33	9.75%	396.76
4th Year	3488.00	1,162.67	2,325.33	2,906.66	9.75%	283.40
5th Year	2325.33	1,162.67	1,162.67	1,744.00	9.75%	170.04
6th Year	1162.67	1,162.67	-	581.33	9.75%	56.68
7th Year	0.00	-	-	-	9.75%	-
8th Year	0.00	-	-	-	9.75%	-
9th Year	0.00	-	-	-	9.75%	-
10th Year	0.00	-	-	-	9.75%	-
11th Year	0.00	-	-	-	9.75%	-
12th Year	0.00	-	-	-	9.75%	-
13th Year	0.00	-	-	-	9.75%	-
14th Year	0.00	-	-	-	9.75%	-
15th Year	0.00	-	-	-	9.75%	-
16th Year	-	-	-	-	9.75%	-
17th Year	-	-	-	-	9.75%	-
18th Year	-	-	-	-	9.75%	-
19th Year	-	-	-	-	9.75%	-
20th Year	-	-	-	-	9.75%	-
21st Year	-	-	-	-	9.75%	-
22nd Year	-	-	-	-	9.75%	-
23rd Year	-	-	-	-	9.75%	-

24th Year	-	-	-	-	9.75%	-
25th Year	-	-	-	-	9.75%	-
26th Year	-	-	-	-	9.75%	-
27th Year	-	-	-	-	9.75%	-
28th Year	-	-	-	-	9.75%	-
29th Year	-	-	-	-	9.75%	-
30th Year	-	-	-	-	9.75%	-
31st Year	-	-	-	-	9.75%	-
32nd Year	-	-	-	-	9.75%	-
33rd Year	-	-	-	-	9.75%	-
34th Year	-	-	-	-	9.75%	-
35th Year	-	-	-	-	9.75%	-
36th Year	-	-	-	-	9.75%	-
37th Year	-	-	-	-	9.75%	-
38th Year	-	-	-	-	9.75%	-
39th Year	-	-	-	-	9.75%	-
40th Year	-	-	-	-	9.75%	-

From Date	To Date	Base Rate	Period	Amount
01-04-2024	14-04-2024	8.65	14	121.10
15-04-2024	14-05-2024	8.65	30	259.50
15-05-2024	14-06-2024	8.65	31	268.15
15-06-2024	14-07-2024	8.75	30	262.50
15-07-2024	14-08-2024	8.85	31	274.35
15-08-2024	14-09-2024	8.95	31	277.45
15-09-2024	30-09-2024	8.95	16	143.20
			183	1,606.25
Interest Rate (as per norms)			8.78	
Add 200 Basis points = 2%			2.00	
Rate of Interest on Normative Loan			10.78%	

INTEREST ON WORKING CAPITAL

Particulars	Unit	Claimed	Approved
Total Working Capital Requirement	Rs. Lakhs	12,854.95	12,854.95
Rate of Interest	%	9.75%	9.75%
Interest on Working Capital	Rs. Lakhs	1,259.79	1,259.79

ANNUAL FIXED CHARGES

YEAR	Annual Fixed Charges (Rs. in Lakh)					
	O&M Expense	Return on Equity	Interest on Loan	Depreciation	Interest on Working Capital	Total
1st Year	299.13	398.42	623.48	449.82	20.91	1,791.76
2nd Year	314.84	398.42	510.12	449.82	21.16	1,694.36
3rd Year	331.37	398.42	396.76	449.82	21.43	1,597.79
4th Year	348.76	398.42	283.40	449.82	21.70	1,502.11
5th Year	367.07	398.42	170.04	449.82	22.00	1,407.35
6th Year	386.34	398.42	56.68	449.82	22.31	1,313.57
7th Year	406.63	398.42	-	449.82	22.63	1,277.50
8th Year	427.98	398.42	-	449.82	22.97	1,299.19
9th Year	450.44	398.42	-	449.82	23.33	1,322.01
10th Year	474.09	398.42	-	449.82	23.71	1,346.04
11th Year	498.98	398.42	-	449.82	24.11	1,371.33
12th Year	525.18	398.42	-	449.82	24.53	1,397.95
13th Year	552.75	398.42	-	449.82	24.97	1,425.96
14th Year	581.77	398.42	-	449.82	25.43	1,455.44
15th Year	612.31	398.42	-	449.82	25.92	1,486.47
16th Year	644.46	398.42	-	76.86	26.44	1,146.18
17th Year	678.29	398.42	-	76.86	26.98	1,180.56
18th Year	713.90	398.42	-	76.86	27.55	1,216.74
19th Year	751.38	398.42	-	76.86	28.15	1,254.82
20th Year	790.83	398.42	-	76.86	28.78	1,294.90
21st Year	832.35	398.42	-	76.86	29.44	1,337.08
22nd Year	876.05	398.42	-	76.86	30.14	1,381.48
23rd Year	922.04	398.42	-	76.86	30.88	1,428.20
24th Year	970.45	398.42	-	76.86	31.65	1,477.39
25th Year	1,021.40	398.42	-	76.86	32.47	1,529.15
26th Year	1,075.02	398.42	-	76.86	33.33	1,583.63
27th Year	1,131.46	398.42	-	76.86	34.23	1,640.97
28th Year	1,190.86	398.42	-	76.86	35.18	1,701.33
29th Year	1,253.38	398.42	-	76.86	36.18	1,764.85
30th Year	1,319.18	398.42	-	76.86	37.24	1,831.70
31st Year	1,388.44	398.42	-	76.86	38.35	1,902.07
32nd Year	1,461.33	398.42	-	76.86	39.51	1,976.13
33rd Year	1,538.05	398.42	-	76.86	40.74	2,054.08
34th Year	1,618.80	398.42	-	76.86	42.03	2,136.12
35th Year	1,703.79	398.42	-	76.86	43.39	2,222.47
36th Year	1,793.24	398.42	-	76.86	44.82	2,313.35
37th Year	1,887.38	398.42	-	76.86	46.33	2,409.00

YEAR	Annual Fixed Charges (Rs. in Lakh)					
	O&M Expense	Return on Equity	Interest on Loan	Depreciation	Interest on Working Capital	Total
38th Year	1,986.47	398.42	-	76.86	47.92	2,509.67
39th Year	2,090.76	398.42	-	76.86	49.59	2,615.63
40th Year	2,200.53	398.42	-	76.86	51.34	2,727.15

GENERATION

Year	Installed Capacity	Capacity Utilization Factor	Gross Generation	Auxiliary Consumption	Net Generation
	MW	%	Kwh	Kwh	MU
1st Year	8.1	45%	31.9302	1.00%	31.61089
2nd Year	8.1	45%	31.9302	1.00%	31.61089
3rd Year	8.1	45%	31.9302	1.00%	31.61089
4th Year	8.1	45%	31.9302	1.00%	31.61089
5th Year	8.1	45%	31.9302	1.00%	31.61089
6th Year	8.1	45%	31.9302	1.00%	31.61089
7th Year	8.1	45%	31.9302	1.00%	31.61089
8th Year	8.1	45%	31.9302	1.00%	31.61089
9th Year	8.1	45%	31.9302	1.00%	31.61089
10th Year	8.1	45%	31.9302	1.00%	31.61089
11th Year	8.1	45%	31.9302	1.00%	31.61089
12th Year	8.1	45%	31.9302	1.00%	31.61089
13th Year	8.1	45%	31.9302	1.00%	31.61089
14th Year	8.1	45%	31.9302	1.00%	31.61089
15th Year	8.1	45%	31.9302	1.00%	31.61089
16th Year	8.1	45%	31.9302	1.00%	31.61089
17th Year	8.1	45%	31.9302	1.00%	31.61089
18th Year	8.1	45%	31.9302	1.00%	31.61089
19th Year	8.1	45%	31.9302	1.00%	31.61089
20th Year	8.1	45%	31.9302	1.00%	31.61089
21st Year	8.1	45%	31.9302	1.00%	31.61089
22nd Year	8.1	45%	31.9302	1.00%	31.61089
23rd Year	8.1	45%	31.9302	1.00%	31.61089
24th Year	8.1	45%	31.9302	1.00%	31.61089
25th Year	8.1	45%	31.9302	1.00%	31.61089
26th Year	8.1	45%	31.9302	1.00%	31.61089
27th Year	8.1	45%	31.9302	1.00%	31.61089
28th Year	8.1	45%	31.9302	1.00%	31.61089
29th Year	8.1	45%	31.9302	1.00%	31.61089
30th Year	8.1	45%	31.9302	1.00%	31.61089
31st Year	8.1	45%	31.9302	1.00%	31.61089
32nd Year	8.1	45%	31.9302	1.00%	31.61089
33rd Year	8.1	45%	31.9302	1.00%	31.61089
34th Year	8.1	45%	31.9302	1.00%	31.61089
35th Year	8.1	45%	31.9302	1.00%	31.61089
36th Year	8.1	45%	31.9302	1.00%	31.61089
37th Year	8.1	45%	31.9302	1.00%	31.61089
38th Year	8.1	45%	31.9302	1.00%	31.61089
39th Year	8.1	45%	31.9302	1.00%	31.61089
40th Year	8.1	45%	31.9302	1.00%	31.61089

DISCOUNTED TARIFF

Particulars	Amount/ Rate	
Capital cost		9632.12
Debt	72%	6975.99
Equity	28%	2656.12
Interest rate		9.75%
RoE		15.00%
Tax Rate		27.82%
Capital - Loan		5.10%
Capital Cost - Equity		4.14%
WACC		9.23%

Particulars	ARR (Rs. in Lakhs)	Net Generation (In Mus)	Tariff (Rs.)	Discounting Factor			Discounted Tariff (Rs.)
1st Year	1,791.76	31.61	5.67	9.23%	1	1.00	5.67
2nd Year	1,694.36	31.61	5.36	9.23%	2	0.91	4.87
3rd Year	1,597.79	31.61	5.05	9.23%	3	0.82	4.16
4th Year	1,502.11	31.61	4.75	9.23%	4	0.75	3.55
5th Year	1,407.35	31.61	4.45	9.23%	5	0.68	3.02
6th Year	1,313.57	31.61	4.16	9.23%	6	0.62	2.56
7th Year	1,277.50	31.61	4.04	9.23%	7	0.56	2.26
8th Year	1,299.19	31.61	4.11	9.23%	8	0.51	2.09
9th Year	1,322.01	31.61	4.18	9.23%	9	0.46	1.93
10th Year	1,346.04	31.61	4.26	9.23%	10	0.42	1.78
11th Year	1,371.33	31.61	4.34	9.23%	11	0.38	1.65
12th Year	1,397.95	31.61	4.42	9.23%	12	0.34	1.52
13th Year	1,425.96	31.61	4.51	9.23%	13	0.31	1.41
14th Year	1,455.44	31.61	4.60	9.23%	14	0.28	1.31
15th Year	1,486.47	31.61	4.70	9.23%	15	0.26	1.21
16th Year	1,146.18	31.61	3.63	9.23%	16	0.23	0.85
17th Year	1,180.56	31.61	3.73	9.23%	17	0.21	0.79
18th Year	1,216.74	31.61	3.85	9.23%	18	0.19	0.74
19th Year	1,254.82	31.61	3.97	9.23%	19	0.17	0.69
20th Year	1,294.90	31.61	4.10	9.23%	20	0.16	0.65
21st Year	1,337.08	31.61	4.23	9.23%	21	0.14	0.61
22nd Year	1,381.48	31.61	4.37	9.23%	22	0.13	0.57

23rd Year	1,428.20	31.61	4.52	9.23%	23	0.12	0.54
24th Year	1,477.39	31.61	4.67	9.23%	24	0.11	0.50
25th Year	1,529.15	31.61	4.84	9.23%	25	0.10	0.47
26th Year	1,583.63	31.61	5.01	9.23%	26	0.09	0.44
27th Year	1,640.97	31.61	5.19	9.23%	27	0.08	0.42
28th Year	1,701.33	31.61	5.38	9.23%	28	0.07	0.39
29th Year	1,764.85	31.61	5.58	9.23%	29	0.07	0.37
30th Year	1,831.70	31.61	5.79	9.23%	30	0.06	0.35
31st Year	1,902.07	31.61	6.02	9.23%	31	0.05	0.33
32nd Year	1,976.13	31.61	6.25	9.23%	32	0.05	0.31
33rd Year	2,054.08	31.61	6.50	9.23%	33	0.05	0.29
34th Year	2,136.12	31.61	6.76	9.23%	34	0.04	0.28
35th Year	2,222.47	31.61	7.03	9.23%	35	0.04	0.26
36th Year	2,313.35	31.61	7.32	9.23%	36	0.03	0.25
37th Year	2,409.00	31.61	7.62	9.23%	37	0.03	0.23
38th Year	2,509.67	31.61	7.94	9.23%	38	0.03	0.22
39th Year	2,615.63	31.61	8.27	9.23%	39	0.03	0.21
40th Year	2,727.15	31.61	8.63	9.23%	40	0.02	0.20

LEVELLISED TARIFF

Total Revenue	64605.33	66323.45
Total Generation	1264.44	1264.44
Average Tariff	5.11	5.25

Particulars	Claimed	Calculated Tariff
Total of Tariff	48.17	49.96
Total of Discounting Factor	10.25	10.61
Levelling tariff - 40 years (Rs./unit)	4.70	4.71



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