

**Before
Assam Electricity Regulatory Commission**

**Petition for
True Up for FY 2021-22,
Annual Performance Review for FY 2022-23
and
Aggregate Revenue Requirement
for FY 2023-24**



Assam Electricity Grid Corporation Limited
Bijulee Bhawan, Paltan Bazar Guwahati – 781 001

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ASSAM ELECTRICITY GRID CORPORATION LIMITED

OFFICE OF THE MANAGING DIRECTOR

Regd. Office: (FIRST FLOOR), BIJULEE BHAWAN, PALTANBAZAR, GUWAHATI - 781001

CIN: U40101AS2003SGC007238GSTIN: 18AAFCA4973J9Z3

PHONE: 0361-2739520 Web: www.aegcl.co.in



No. AEGCL/HQ/ACCTTS/2007/9(Part III)/ 09

Date: 30-Nov-2022

To,

**The Secretary,
Assam Electricity Regulatory Commission,
ASEB Campus, Dwarandhar,
G.S.Road, Sixth Mile,
Guwahati- 781022.**

Sub.: Submission of Tariff Petition for True- up of **FY 2021-22**, Annual Performance Review of **FY 2022-23** & Aggregate Revenue Requirement of **FY 2023-24** of Assam Electricity Grid Corporation Limited (AEGCL).


Sir,

Reference to the subject cited above, I am furnishing herewith the Tariff Petition for True- up for **FY 2021-22**, Annual Performance Review for **FY 2022-23** & Aggregate Revenue Requirement for **FY 2023-24** of Assam Electricity Grid Corporation Limited (AEGCL).

Enclo.:-

1) Six copies of the above mentioned Tariff Petition

Yours faithfully,


General Manager (Marketing & PR),
AEGCL, Bijulee Bhawan,
Paltanbazar, Guwahati-781001.

BEFORE THE HON'BLE ASSAM ELECTRICITY REGULATORY COMMISSION

PETITION NO. _____

CASE NO. _____

(to be filed by the Office)

IN THE MATTER OF

Truing up for the FY 2021-22, Annual Performance Review for FY 2022-23 & ARR for FY 2023-24 of AEGCL.

IN THE MATTER OF

Assam Electricity Grid Corporation Limited
Bijulee Bhawan, Paltanbazar,
Guwahati – 781 001.

Petitioner

I, Loknath Choudhury, son of Late Prasanna Choudhury, aged 59 years, residing at Guwahati do solemnly affirm and say as follows:

I am the General Manager, Marketing & PR, of Assam Electricity Grid Corporation Limited, the petitioner in the above matter and am duly authorized by the said Petitioner to make this affidavit for and on behalf of the Assam Electricity Grid Corporation Limited.

The Statement made in the Petition based on information received from official records and I believe them to reflect truly and no material has been concealed from the statements so made or documents or supporting data etc. attached.

Solemnly affirm at Guwahati on 30th day of November, 2022 that the contents of this affidavit are true to my knowledge, no part of it is false or no material has been concealed therefore and misleading material included therein.

Place: Guwahati

Date 30-11-2022

Deponent

Loknath Choudhury

By order of the Commission
Secretary of the Commission

General Manager
(Marketing & PR)
O/o the MD, AEGCL

BEFORE THE HON'BLE ASSAM ELECTRICITY REGULATORY COMMISSION

FILING NO.

CASE NO.

IN THE MATTER OF: Petition for the approval of the Truing up for the FY 2021-22, Annual Performance Review for FY 2022-23 & ARR for FY 2023-24 of AEGCL

AND

IN THE MATTER OF: Assam Electricity Grid Corporation Limited incorporated under the provisions of the Companies Act, 1956 and having its registered office in the State of Assam.

THE HUMBLE APPLICANT ABOVE NAMED MOST RESPECTFULLY SUBMITS:

1. That the Assam Electricity Grid Corporation Limited, hereinafter named as AEGCL, is a successor corporate entity, formed in pursuant to the notification of the Government of Assam, notified under sub-sections (1), (2), (5), (6) and (7) of Section 131 and Section 133 of the Electricity Act 2003 (Central Act 36 of 2003), for the purpose of transfer and vesting of functions, properties, interests, rights, obligations and liabilities, along with the transfer of Personnel of the Board to the successor corporate entities.
2. That the Assam Electricity Grid Corporation Limited is a company incorporated with the main object of undertaking electricity transmission in the state of Assam as State Transmission Utility (STU).
3. That the Assam Electricity Grid Corporation Limited is a deemed licensee under the provisions laid down in Section 14 Proviso 5, read with Section 131 (2) of the Electricity Act 2003.
4. That the licensee is now filing the petition for the approval of its Truing up for the FY 2021-22, Annual Performance Review for FY 2022-23 & ARR for FY 2023-24 of AEGCL.

Loknath Choudhury

(PETITIONER)

General Manager
(Marketing & PR)
O/o the MD, AEGCL

File Upload e-PayOrder Number AOHH540303
 Debit Status Success
 File Remarks Completed Successfully
 Download(Mandate Files,MCC Scheduled Time 29-Nov-2022 12:01 IST
 Files,Instruction Files)

29-11-2022

Late Returns

30341598688

1500000.00

Beneficiary LEI

BIJENDRA PRASAD

Setup for

00000030019619154

NEFT/RTGS

A T ROAD, GUWAHATI

KASHI NATH BAISHYA
Authorizer 1Paresh Kumar Barman
Authorizer 2

Stationery

AOHH540303

CMP00000000569526347

Request Enquiry

Counterfoil Description 30019619154

Transaction Type FT

Debit Account Details

00000030019619154

A T ROAD,
GUWAHATI

1500000.00

Credit Account Details

Account No	Branch	Account Type	Amount	Debit Status
30341598688 / AERC	106616811	SIXMILE	1500000.00	Success

BACK

Before
Assam Electricity Regulatory Commission

**Petition for
True Up for FY 2021-22,
Annual Performance Review for FY 2022-23
and
Aggregate Revenue Requirement for
FY 2023-24**

November 2022



Assam Electricity Grid Corporation Limited
Bijulee Bhawan, Paltan Bazar, Guwahati – 781 001



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**1 EXECUTIVE SUMMARY****1.1 Preamble**

1.1.1 This section summarizes the petition for True Up of FY 2021-22, Annual Performance Review for FY 2022-23 and Aggregate Revenue Requirement for FY 2023-24 of Assam Electricity Grid Corporation Ltd. (AEGCL).

1.2 True Up for FY 2021-22

1.2.1 AEGCL has calculated its ARR for FY 2021-22 as part of True Up for FY 2021-22. AEGCL has presented the actual cost based on Audited Annual Accounts for FY 2021-22 and applied norms wherever applicable as per Assam Electricity Regulatory Commission (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2018. A detailed comparison of various cost components has been presented in Chapter of True Up for FY 2021-22. A summary of the proposed True Up for FY 2021-22 with the approved ARR for FY 2021-22 is presented below:

Table 1: True Up for FY 2021-22

(Rs. Crs.)			
S.N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	O&M Expenses	219.59	221.06
a	Employee Cost	185.10	186.23
b	R&M Expenses	23.84	24.31
c	A&G Expenses	10.26	10.21
d	Training Expenses	0.40	0.30
2	Depreciation	35.97	51.91
3	Interest & Finance Charges	24.06	20.00
4	Interest on Working Capital	11.06	12.21
5	BST for Pension Trust Fund	146.64	153.94
6	Return on Equity	15.49	15.49
7	Income Tax	-	-
8	Other debits	-	3.39
9	Less: Non-Tariff Income/ Other Income	63.73	54.80
10	Aggregate Revenue Requirement	389.09	423.18
11	Incentive on Transmission Availability	-	2.64
12	Add: Sharing of (Gains)/Loss	-	(9.91)
13	ARR after Sharing (Gains)/Losses and Incentive	389.09	415.92
14	Revenue with Approved Tariff for FY 2021-22	389.09	389.09
15	Less: Revenue from STOA/MTOA Charges	-	11.94
16	ARR after reducing revenue from STOA/MTOA charges	389.09	403.98
17	Revenue Gap /(Surplus) for FY 2021-22	-	14.89



1.3 Annual Performance Review of FY 2022-23

1.3.1 As per AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021, APR of FY 2022-23 is based on the actuals of H1 and estimated H2 for Summary as follows:

Table 2: Annual Performance Review for FY 2022-23

(Rs. Crs.)

S.N.	Particulars	Approved in T.O. dtd 21.03.2022	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
1	O&M Expenses	223.11	119.53	119.53	239.05
a	Employee Cost	184.39	99.59	99.59	199.18
b	R&M Expenses	28.89	14.56	14.56	29.12
c	A&G Expenses	9.83	5.38	5.38	10.75
2	Depreciation	35.96	56.89	56.89	113.78
3	Interest & Finance Charges	24.32	7.56	7.56	15.11
4	Interest on Working Capital	12.30	8.52	8.52	17.04
5	BST for Pension Trust Fund	214.38	113.42	113.42	226.85
6	Return on Equity	13.68	33.25	33.25	66.51
7	Other debits	-	2.71	2.29	5.00
8	Contribution towards Contingency Reserve	2.71			2.74
9	Less: Non-Tariff Income/ Other Income	54.01	34.35	19.66	54.01
10	Aggregate Revenue Requirement	472.45	308.90	323.17	632.07
11	Incentive on Transmission Availability	-	-	-	-
12	Aggregate Revenue Requirement after incentive	472.45	308.90	323.17	632.07
13	Less: Revenue from STOA/MTOA Charges	12.00	3.16	8.84	12.00
14	Net Aggregate Revenue Requirement	460.45	305.74	314.33	620.07
15	Revenue with Approved Tariff for FY 2022-23	460.45	-	-	460.45
16	Revenue Gap /(Surplus) for FY 2022-23	-	-	-	159.62

**1.4 Aggregate Revenue Requirement for FY 2023-24**

As per AERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2021, AEGCL has presented ARR for FY 2023-24. The summary of Projected ARR for FY 2023-24 is shown in the table below:

Table 3: Summary of Projected ARR for FY 2023-24

(Rs.Crs.)			
S. No.	Particulars	As per T.O. dated 21.03.2022	FY 2023-24
1	O&M Expenses	234.74	259.07
a	Employee Cost	196.54	213.02
b	R&M Expenses	27.97	34.72
c	A&G Expenses	10.23	11.33
2	Depreciation	37.46	124.19
3	Interest & Finance Charges	22.36	5.16
4	Interest on Working Capital	13.86	18.81
5	BST for Pension Trust Fund	231.75	229.11
6	Return on Equity	14.02	119.53
7	Contribution to Contingency Reserve	2.91	2.91
8	Less: Non-Tariff Income/ Other Income	54.01	54.01
9	Add: Incentive for FY 2015-16	-	10.60
10	Aggregate Revenue Requirement	503.11	715.39
11	Less: Revenue from STOA/MTOA Charges	12.00	12.00
12	Net Aggregate Revenue Requirement	491.11	703.39
13	Revenue Gap /(Surplus) for FY 2023-24		212.30

**2 INTRODUCTION****2.1 AEGCL**

2.1.1 Assam Electricity Grid Corporation Limited (*hereinafter to be referred to as "AEGCL" or the "Petitioner"*) owns and operates the transmission system previously owned by Assam State Electricity Board (ASEB). AEGCL started functioning as a separate entity from December 10, 2004.

2.1.2 AEGCL has been developing, operating, and maintaining a transmission system consisting of total line length of 5809.65 Ckt. km and sixty-nine grid substations at different voltage levels along with associated equipment and terminal bays, etc.

Table 4: Transmission Line Length of AEGCL

Sr. No.	Voltage Level	Length in Ckt. Km		
		FY 2021-22	FY 2020-21	FY 2019-20
1.	400 kV	7.20	7.20	7.20
2.	220 kV	2048.50	2048.05	2048.05
3.	132 kV	3140.95	3069.19	3038.97
4.	66 kV	613.00	613.00	613.00
	Total	5809.65	5737.45	5707.22

Table 5: No. of Grid Substation of AEGCL

Sr. No	Voltage Level	Nos of GSS		
		FY 2021-22	FY 2020-21	FY 2019-20
1	400/220/132/33 kV	1	1	1
2	220/132 kV	1	1	2
3	220/132/66/33 kV	1	1	3
4	220/132/33 kV	9	9	6
5	220/33 kV	1	1	1
6	132/66/33 kV	1	1	2
7	132/33 kV	54	52	51
8	132/11 kV	1	1	1
	Total	69	67	67

2.2 Approach for filing the petition

- a) The Hon'ble Commission notified the AERC (Terms and Conditions for determination of MYT) Regulations, 2018 (hereinafter to be referred as MYT Regulations 2018) which are applicable for determination of tariff from 1st April 2019 onwards and have defined control period from FY 2019-20 to FY 2021-22. As per the provisions of these MYT Regulations, 2018, AEGCL is filing the true up petition for FY 2021-22 based on Audited Annual Accounts for



- consideration of the Hon'ble Commission along with the specified formats providing information on various operational and performance parameters.
- b) Since FY 2021-22 is completed and Audited Annual Accounts for the said year are now available, hence AEGCL is filing the true up petition for FY 2021-22 along with audited accounts as per the provisions of MYT Regulations, 2018.
 - c) Thereafter, Hon'ble Commission vide Order dated 15th February 2021 approved the ARR for FY 2021-22. As per the provisions of the MYT Regulations 2018
 - d) Further on 22nd September 2021, the Hon'ble Commission notified AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021 (*hereinafter to be referred as MYT Regulations 2021*) which are applicable from 1st April 2022.
 - e) As per the provisions of the MYT Regulations, 2021, AEGCL is filing Annual Performance Review petition for FY 2022-23 based on 6 months actual (1st April 2022 to 30th September 2022) and 6 months estimation (1st Oct 2022 to 31st Mar 2023) and Aggregate Revenue Requirement for 2023-24.

2.3 Provision of Law

- a) The Hon'ble Commission has notified the MYT Regulations, 2021. The scope of this regulation included tariff determination for transmission licensee under Multi Year Tariff principle. From FY 2019-20 onwards, MYT Regulations, 2018 are applicable till 31st March 2022, hence True Up for FY 2021-22 are prepared as per the provisions of MYT Regulations, 2018. From 1st April 2022, MYT Regulations, 2021 are applicable for APR for FY 2022-23 and ARR for FY 2023-24. The relevant extract of the applicability of MYT Regulations 2021 is provided below for reference.

"3 Object, Scope of Regulations and Extent of Application

3.1 *The objective of these Regulations is to specify the terms and conditions for the determination of tariffs by the Assam Electricity Regulatory Commission for the supply of electricity by a generating company to a distribution licensee, for transmission of electricity, for wheeling of electricity and for retail sale of electricity, and SLDC.*

3.2 *The Commission in specifying these Regulations is guided by the principles contained in Sections 61 and 62 of the Act, the National Electricity*



Policy, 2005 and the Tariff Policy, 2016 notified by the Central Government under Section 3 of the Act.

3.3 *The Commission shall determine tariff, including terms and conditions thereof, for all matters for which the Commission has jurisdiction under the Act, including in the following cases:-*

- (i) Supply of electricity by a Generating Company to a Distribution Licensee;*
- (ii) Intra-State transmission of electricity;*
- (iii) Wheeling Business for Distribution of electricity;*
- (iv) Retail Supply Business of electricity;*
- (v) State Load Dispatch Centre;*

Provided that the Commission shall determine such tariff, having regard to the terms and conditions contained in Chapter 6,7, 8, 9 & 10 of these Regulations for applications under this Regulation for determination of tariff, for generation, transmission, distribution Wheeling Business and retail supply business and SLDC:

Provided further that the Commission, while determining tariff upon an application made to it under this Regulation, shall also have regard to the terms and conditions of tariff as may be specified by the State Commission of such other State and/or the terms and conditions of tariff as may be specified by the Central Commission where any of the Parties to such transaction come under the jurisdiction of such State Commission or of the Central Commission.

3.4 *Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government.*

”

- a) Accordingly, as per the provisions of AERC (MYT) Regulations, 2018, AEGCL has prepared the True-up petition for FY 2021-22. Further, Annual Performance Review for FY 2022-23 and Aggregate Revenue Requirement for FY 2023-24 is proposed as per the provisions of AERC (MYT) Regulations, 2021. AEGCL is submitting the above petition for approval of the Hon'ble Commission.



2.4 Petition Structure

The True Up, APR and ARR Petition included the following Chapters:

Sr. No.	Section	Contents
1	Section 1	Executive summary of Petition
2	Section 2	Introduction and overall approach to filling the Petition
3	Section 3	True Up for FY 2021-22
4	Section 4	Annual Performance Review for FY 2022-23
5	Section 5	Aggregate Revenue Requirement for FY 2023-24
6	Section 6	Directives of Compliances
7	Section 7	Prayers to the Hon'ble Commission

**3 TRUE UP FOR FY 2021-22****3.1 Preamble**

3.1.1 This section outlines the performance of AEGCL for FY 2021-22 and is based on the Audited Annual Accounts. In line with the provisions of MYT Regulations, 2018, AEGCL hereby submits the True Up Petition comparing the actual performance during FY 2021-22 with the approved by the Hon'ble Commission for FY 2021-22 vide tariff order dated 15.02.2021.

3.2 Principles of Truing Up for FY 2021-22

3.2.1 AEGCL submits the actual performance based on the audited accounts for true up for FY 2021-22. This chapter summarizes each of the components of Annual Transmission Charges for FY 2021-22 and requests the Hon'ble Commission to approve the true up for FY 2021-22. The Audited Annual Accounts for FY 2021-22 are attached as **Annexure-I**.

3.2.2 The following sections outline the deviations in actual expenses and revenue for FY 2021-22 based on the Audited Accounts of AEGCL in comparison with the approved by the Hon'ble Commission for FY 2021-22 vide tariff order dated 15.02.2021.

3.3 Transmission Loss for FY 2021-22

3.3.1 AEGCL has achieved a significant reduction in transmission losses in recent years. In FY 2021-22, the actual transmission loss was 3.32%, which was reduced as compared to the previous year. The table below highlights the actual transmission loss achieved by AEGCL.

Table 6: Transmission Loss for FY 2021-22

S.N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	Energy Injected (MU)		10890.16
2	Energy Sent Out to APDCL & OA Consumers (MU)		10262.67
3	Energy Sent Out to OA Consumers (MU)		265.96
4	Total Energy Sent Out		10528.63
4	Transmission Loss (MU)		361.53
5	Transmission Loss (%)	3.29%	3.32%

3.3.2 The energy balance certified by SLDC is attached as **Annexure-II**. Hence, AEGCL requests the Hon'ble Commission to approve the Transmission loss of 3.32 % for FY 2021-22. The Energy Audit Report for FY 2021-22 is provided for your reference as **Annexure-III**.



3.4 Fixed Cost for FY 2021-22

3.4.1 Based on the Capital Cost and the consequent Capitalized Expenditure, Equity Component and Normative Debt, the fixed cost of AEGCL for FY 2021-22 have been determined in accordance with the MYT Regulations, 2018 outlined thereof. The fixed cost for AEGCL has been determined under the following major heads:

- Operation and Maintenance Expenses
- Depreciation
- Interest and Finance Charges
- Interest on Working Capital
- Return on Equity
- Bulk Supply Tariff (BST)

Less:

- Non-Tariff Income
- Income from other business

3.4.2 For the purpose of truing up, all the heads mentioned above have been categorized into Controllable or Uncontrollable factors. A head wise comparison has been made between the values approved by the Hon'ble Commission vide Tariff Order dated 15.02.2021 and the actual expenditure incurred by the AEGCL in FY 2021-22 based on the audited accounts along with the same applied as per the requirement.

3.5 Categorization of Heads of Expenses

3.5.1 As per provisions of MYT Regulations, 2018, all the expenditure heads need to be categorized into Controllable (under control of the Petitioner) and Uncontrollable (not under control of the Petitioner).

3.5.2 Regulations 11 of MYT Regulations, 2018, provide for categorization of expense heads. Based on the above classification, AEGCL has computed the Gains/ Losses attributed to such controllable & uncontrollable factors for FY 2021-22.

3.6 Operation and Maintenance Expenses for FY 2021-22

3.6.1 The Regulation 66.9 and 66.10 of the AERC (MYT) Regulations, 2018 specifies the normative Operation and Maintenance (O&M) expenses allowed for new Transmission Licensee for the said control period. The relevant provision is as follows:

“Regulation 66.9 (Operation and Maintenance Expenses): The O&M expenses for the nth year and also for the year immediately preceding the Control Period shall be approved based on the formula given below:-



$$O\&M_n = R\&M_n + EMP_n + A\&G_n$$

Where –

O&M_n – Operation and Maintenance expense for the nth year;

EMP_n – Employee Costs for the nth year;

R&M_n – Repair and Maintenance Costs for the nth year;

A&G_n – Administrative and General Costs for the nth year;

Regulation 66.10 (Operation and Maintenance Expenses): The above components shall be computed in the manner specified below:

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (CPI \text{ inflation})$$

$$R\&M_n = K \times (GFA_{n-1}) \times (WPI \text{ inflation}) \text{ and}$$

$$A\&G_n = (A\&G_{n-1}) \times (WPI \text{ inflation}) + \text{Provision}$$

Where -

EMP_{n-1} – Employee Costs for the (n-1)th year;

A&G_{n-1} – Administrative and General Costs for the (n-1)th year;

Provision: Cost for initiatives or other one-time expenses as proposed by the Licensee and validated by the Commission.

‘K’ is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on licensee’s filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-a-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;

CPI inflation – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;

WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;

GFA_{n-1} --- Gross Fixed Asset of the transmission licensee for the n-1th year;

G_n is a growth factor for the nth year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee’s filings, benchmarking, and any other factor that the Commission feels appropriate”

- 3.6.2 During FY 2021-22, based on methodology specified by the MYT Regulations, 2018, the Normative O&M expenses of AEGCL works out to be Rs. 221.06 crores which is inclusive of Employee cost, Repair & Maintenance charges, and Administration & General expenses. The following table provides the summary of Normative O&M Expenses for FY 2021-22.

**Table 7: Operation and Maintenance Expenses for FY 2021-22****(Rs.Crs.)**

S.N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
	O&M Expenses	219.60	221.06
1	Employee Cost	185.10	186.23
2	R&M Expenses	23.84	24.31
3	A&G Expenses	10.26	10.21
4	Training Expenses	0.40	0.30

3.6.3 WPI Inflation computation for FY 2021-22

3.6.3.1 The average increase in the Wholesale Price Index (WPI) for the preceding three years gives the WPI Inflation for FY 2021-22. Hence the WPI Index from FY 2018-19 to FY 2020-21 is considered and the computation is provided in the table as follows:

Fiscal	WPI Index	YOY Change %
FY 2020-21	123.37	1.29%
FY 2019-20	121.8	1.67%
FY 2018-19	119.80	4.26%
Average WPI Inflation (Last 3 Years)		2.41%

3.6.4 WPI inflation for FY 2021-22 has been computed as an average increase of WPI index for period from FY 2018-19 to FY 2020-21 which works out to 2.41%.

3.6.5 CPI Inflation computation for FY 2021-22

3.6.6 The average increase in the Consumer Price Index (CPI) for the preceding three years gives the CPI Inflation for FY 2021-22. Hence the CPI Index from FY 2018-19 to FY 2020-21 is considered and the computation is provided in the table as follows:

Fiscal	CPI Index	YOY Change %
FY 2020-21	338.69	5.02%
FY 2019-20	322.5	7.53%
FY 2018-19	299.92	5.45%
Average CPI Inflation (Last 3 Years)		6.00%

3.6.7 CPI inflation for FY 2021-22 has been computed as the average increase of CPI index for period from FY 2018-19 to FY 2020-21 which works out to 6.00%.

**3.6.8 Normative Calculation of R&M expense for FY 2021-22**

3.6.8.1 Regulation 66.10 provides the manner in which components of O&M expenses shall be computed. The methodology for R&M expense is as follows:

$$R\&Mn = K \times (GFA\ n-1) \times (WPI\ inflation)$$

Table 8: Normative Repairs and Maintenance Expenses for FY 2021-22

S. No	Particulars	Amount (Rs. Cr.)
1	Opening GFA for previous year	2,388.52
2	Closing GFA for previous year	2,557.99
3	Average GFA for previous year	2,473.25
4	K Factor	0.96%
5	WPI Inflation	2.41%
4	Normative R&M Expense	24.31

3.6.8.2 The “K” factor of AEGCL has been considered as 0.96% as approved by the Hon’ble Commission vide MYT Order dated 01.03.2019. The above normative R&M expenses are exclusive of SLDC expenses.

3.6.8.3 AEGCL has excluded the assets of SLDC from the opening and closing GFA of the previous year of AEGCL while computing normative R&M for FY 2021-22. R&M costs of SLDC have been individually accounted in the SLDC True up Petition for FY 2021-22. Also, the AMC cost of SCADA has not been considered under AEGCL and separately considered under SLDC petition

3.6.8.4 AEGCL requests the Hon’ble Commission to approve the normative R&M expenses as shown in above table amounting to Rs. 24.31 Crores for FY 2021-22.

3.6.9 Normative Calculation of Employee Expense for FY 2021-22

3.6.9.1 Regulation 66.10 provides the manner in which components of O&M expenses shall be computed. The methodology for Employee expense is as follows:

$$EMPn = (EMPn-1) \times (1+Gn) \times (CPI\ inflation)$$

Table 9: Normative Employee Expenses for FY 2021-22

S. No	Particulars	Amount (Rs. Cr.)
1	Base Employee Cost (n-1)	173.95
2	CPI Inflation	6.00%
3	Gn (Growth Factor for nth Year)	1.00%
4	Normative Employee Cost for FY 2021-22	186.23



3.6.9.2 The Gn (Growth Factor) of AEGCL has been considered as 1.00% as approved by the Commission in the Tariff Order dated 01.03.2019. Base employee cost has been considered as approved by the Hon'ble Commission during the True Up for FY 2020-21 vide Tariff Order dated 21.03.2022. The above normative Employee Expenses are exclusive of SLDC Employee Expenses.

3.6.9.3 AEGCL requests the Hon'ble Commission to approve the normative Employee expenses as shown in above table amounting to Rs. 186.23 Cr for FY 2021-22.

3.6.10 Normative calculation of Administrative & General Expenses for FY 2021-22

3.6.10.1 Regulation 66.10 provides the manner in which components of O&M expenses shall be computed. The methodology for Administrative and General Expenses is as follows:

$$A\&Gn = (A\&Gn-1) \times (WPI \text{ inflation}) + Provision$$

Table 10: Normative A&G Expenses for FY 2021-22

S. No	Particulars	Amount (Rs. Cr.)
1	A&G Expense for Previous year	9.97
2	WPI Inflation	2.41%
3	Normative A&G Expense for the year	10.21

3.6.10.2 AEGCL requests the Hon'ble Commission to approve the normative A&G expenses as shown in above table amounting to Rs. 10.21 Crores for FY 2021-22.

3.6.10.3 The following sections provide the details of O&M expenses as provided in the Audited Accounts for FY 2021-22.

3.6.11 Training and Capacity Building of AEGCL Employees for FY 2021-22

3.6.11.1 AEGCL submits that on account of technological changes, training of manpower was required in order to achieve operational effectiveness along with the accident-free workplace. Hence, to adapt better working conditions to reduce accident and mis happening, AEGCL has conducted several training workshops at regular intervals.

Table 11: Training and Capacity Building for FY 2021-22

SL No	Name of Training/Webinar/Conference	Total Participants	Start Date	End date
1	Transmission Line - Design and Engineering	20	05-04-2021	07-04-2021



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SL No	Name of Training/Webinar/Conference	Total Participants	Start Date	End date
2	Substation - Design and Engineering	20	10-05-2021	12-05-2021
3	New Trends in LV Switchgear & modernization of plants	15	27-04-2021	28-04-2021
4	(Webinar) Energy Storage is the Next Big Thing for the Power Sector	10	20-05-2021	20-05-2021
5	(Webinar) Cyber Security	5	25-05-2021	26-05-2021
6	Lecture Series: How to select technical specifications of Circuit Breaker	15	29-05-2021	29-05-2021
7	Lecture Series: History and Fundamentals of Power Transformer	15	05-06-2021	05-06-2021
8	Lecture Series: Tan Delta Measurement for Condition Monitoring of Power Transformers	15	12-06-2021	12-06-2021
9	DR, EL Downloading, FIR etc on Transmission System (NERPC)	20	17-06-2021	17-06-2021
10	Lecture Series: Condition Monitoring of Transformer bushings	15	19-06-2021	19-06-2021
11	Microgrid	5	23-06-2021	24-06-2021
12	Lecture Series: Condition Monitoring of Transformers/Reactors through Frequency Response Analysis	14	03-07-2021	03-07-2021
13	Creativity and Innovation for the workplace	5	12-07-2021	13-07-2021
14	Lecture Series: Condition Monitoring of Transformers/Reactors by Dissolved Gas Analysis"	15	10-07-2021	10-07-2021
15	Lecture Series: Efficient Management of Transmission Lines	15	17-07-2021	17-07-2021
16	Cyber Security for Power System Safety and Smart Grids	10	22-07-2021	22-07-2021
17	Contract Management from Principles to Action	2	27-07-2021	28-07-2021
18	Lecture Series: Concept of Back Flashover due to Lightening and use of Surge Arresters in Transmission Lines	15	24-07-2021	24-07-2021
19	Renewable Energy	3	11-08-2021	11-08-2021
20	Lecture Series: Tower Footing Impedance importance & mitigation measures	15	31-07-2021	31-07-2021



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SL No	Name of Training/Webinar/Conference	Total Participants	Start Date	End date
21	Lecture Series: Insulation Coordination and Lightning Protection of Transmission System	15	07-08-2021	07-08-2021
22	Lecture Series: Surge Arrester Selection and Placement for Insulation Coordination in EHV substations	15	14-08-2021	14-08-2021
23	Instrument Transformers, CBIP	5	24-08-2021	26-08-2021
24	Lecture Series: Fundamentals of Insulation Coordination for EHV Class Power Transformer	15	21-08-2021	21-08-2021
25	Energy Monitoring System, CBIP	5	26-08-2021	27-08-2021
26	Lecture Series:	15	28-08-2021	28-08-2021
27	Online Training: PSSE Software (Siemens)	18	06-09-2021	10-09-2021
28	Lecture Series: Capacitance & Tan Delta- Principle & its application in Condition Monitoring of Substation Equipment	15	04-09-2021	04-09-2021
29	Lecture Series 20: STATCOM System Operation and Application	15	11-09-2021	11-09-2021
30	Lecture Series 21: Fundamentals of substation layout arrangement	15	18-09-2021	18-09-2021
31	Lecture Series 22: Fundamentals of Protection System	15	25-09-2021	25-09-2021
32	Induction Batch 1: Transmission System Overview & Powergrid Practices	33	27-09-2021	01-10-2021
33	Lecture Series 23: Condition Monitoring of Instrument Transformer	15	02-10-2021	02-10-2021
34	Lecture Series 24: Preventing Defecencies during commissioning of Protection System	15	09-10-2021	09-10-2021
35	5th India Energy Forum by CERAWEEK	10	20-10-2021	22-10-2021
36	2nd Edition DIGIELEC-BHARAT	3	25-10-2021	26-10-2021
37	Advocacy Program (Umesh Kumar, Retd IPS)	30 emp + 5 contractors	25-10-2021	25-10-2021
38	Lecture Series 26: Fundamentals of Multi Terminal HVDC	15	30-10-2021	30-10-2021
39	Human Resource Management (HR): Past: Present: Future Objective, Significance & Strategies	12	15-11-2021	16-11-2021
40	Lecture Series 27: Safety Requirements during construction and O&M of transmission system	15	06-11-2021	06-11-2021



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SL No	Name of Training/Webinar/Conference	Total Participants	Start Date	End date
41	Lecture Series 28: Optimization of O&M Cost of Transmission System	15	13-11-2021	13-11-2021
42	Induction Batch 2: Transmission System Overview & Powergrid Practices	129	22-11-2021	26-11-2021
43	Lecture Series 29: Basics of substation automation system	15	20-11-2021	20-11-2021
44	Lecture Series 30: GIS Technology and PD monitoring in GIS	15	27-11-2021	27-11-2021
45	Induction Batch 3: Transmission System Overview & Powergrid Practices	129	06-12-2021	10-12-2021
46	Lecture Series 31: Optimization of O&M cost of Transmission System - Part-II	15	04-12-2021	04-12-2021
47	Lecture Series 32: ISO-55000 and reliability centred Asset Management Practices	15	11-12-2021	11-12-2021
48	Lecture Series 33: Salient Features and Operational Aspects of HVDC	15	18-12-2021	18-12-2021
49	Induction Program for HR executives	6	27-12-2021	31-12-2021
50	Lecture Series 34: Concept of Reliability centred maintenance for transmission assets	15	25-12-2021	25-12-2021
51	Lecture Series 35: Fundamentals & Principle of Bus Bar Protection	15	31-12-2021	31-12-2021
52	Lecture Series 36: Reactive Power Management in Transmission Grid	15	08-12-2021	08-12-2021
53	Lecture Series 37: Pre-Commissioning of GIS substation	15	15-01-2022	15-01-2022
54	Lecture Series 38: Basics of communication system in power transmission	15	22-01-2022	22-01-2022
55	Lecture Series 39: Challenges in O&M of Transmission System	15	29-01-2022	29-01-2022
56	SCADA & Cyber Security (SLDC fund)	20	10-02-2022	11-02-2022
57	Basic Training on Surveying, Design and Quality Control for Civil Engineering Works	27	07-02-2022	26-02-2022
58	Lecture Series 40: Insulation Coordination of Substation Equipment	15	05-02-2022	05-02-2022
59	Autodesk Software Solution and Photoshop	130	17-01-2022	06-03-2022



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SL No	Name of Training/Webinar/Conference	Total Participants	Start Date	End date
60	Lecture Series 41: Online Monitoring of Transmission Equipments	15	12-02-2022	12-02-2022
61	Administering & operating the EAP portal developed under EAP cell of Chief Minister's Office	2	09-02-2022	09-02-2022
62	Assam Right to Public Service Act (AASC)	2	23-02-2022	25-02-2022
63	Power Safety (NPTI-NER organized)	30	17-02-2022	18-02-2022
64	Environment & Social Management by Dr. B.K.D Raja, E&S Consultant (AIIB)	18	18-02-2022	18-02-2022
65	Lecture Series 42: Experiences of O&M of Renewable Energy Pooling Substations		19-02-2022	19-02-2022
66	Lecture Series 43: Protection Issues/Mal-operations in transmission system and their mitigation measures	15	26-02-2022	26-02-2022
67	Best Practices for Underground Cable Systems (IEEMA)	2	04-03-2022	04-03-2022
68	Lecture Series 44: Online PID Scanning of Transmission Line	15	05-03-2022	05-03-2022
69	Lecture Series 45: Concept of IEC 61850 Process Bus Based Digital Substation	15	12-03-2022	12-03-2022
70	Decision making for effective leadership	2	22-03-2022	24-03-2022
71	Lecture Series 46: HTLS Conductor and Procedure for Re-conductoring in hilly terrain	15	19-03-2022	19-03-2022
72	Role of SLDC in Power Scenario	33+28	24-03-2022	25-03-2022
73	Lecture Series 47: Overview, Basic Setting and Testing of Bus Bar Protection	15	26-03-2022	26-03-2022
74	Office Procedure, Conduct Rules & Disciplinary Procedures	30	30-03-2022	30-03-2022
75	Induction Training Programme by AEGCL	83 AM + 198 JM	15-09-2021	27-10-2021
76	Basic Level Training and Certification Program on Cyber Security (Theory and Hands on)	20	21-03-2022	01-04-2022

3.6.11.2 AEGCL has incurred Rs. 0.30 Crores in FY 2021-22, hence, requests the Hon'ble Commission to approve the proposed expenses under training for the FY 2021-22.

**3.6.12 Repair and Maintenance Expenses for FY 2021-22**

3.6.12.1 Repairs and Maintenance expenses go towards the day-to-day upkeep of the transmission network of the company and form an integral part of the company's efforts towards reliable and quality power transmission as also in reduction of losses in the system.

3.6.12.2 To maintain the assets in a more efficient way, AEGCL has been carrying out the repair and maintenance activities. The actual R&M expense for FY 2021-22 is mentioned below.

Table 12: Repair and Maintenance Expenses for FY 2021-22
Amount (Rs. Crs.)

S.N.	Particulars	AEGCL Submission
1	Plant & Machinery	7.01
2	Buildings	1.76
3	Civil works	0.48
4	Hydraulic Works	-
5	Lines, Cable Networks etc.	3.52
6	Vehicles	0.26
7	Furniture & Fixtures	0.08
8	Office Equipment	0.31
9	Total R&M Expenses	13.42

3.6.13 Employee Expenses for FY 2021-22

3.6.13.1 Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity funding, leave encashment and staff welfare expenses. The actual employee expenses for FY 2021-22 are as follows:

Table 13: Employee Expenses for FY 2021-22

(Rs. Crs.)

S.N	Particulars	Actual Employee Expenses
1	Salaries	94.29
2	Dearness Allowance (DA)	23.41
3	Other Allowances & Relief	14.20
4	Honorarium/Overtime	0.42
5	Bonus/ Exgratia to Employees	0.30
6	Medical Expenses Reimbursement	0.14
7	Leave Travel Assistance	0.01
8	Earned Leave Encashment	3.88



(Rs. Crs.)		
S.N	Particulars	Actual Employee Expenses
9	Payment Under Workman's Compensation and Gratuity	6.06
10	Staff Welfare Expenses	0.33
11	Contribution to Terminal Benefits	20.95
12	Total Employee Costs	163.99

3.6.13.2 The details of manpower for FY 2021-22 excluding SLDC is provided in the table below:

Table 14: Manpower details for FY 2021-22

S.N.	Particulars	FY 2021-22
(A)	Manpower as on 1st April (Opening Balance)	1576
(B)	Retirement during the Financial Year	81
(C)	Recruitment during the Financial Year	0
(D)	Transfer within sister company and within AEGCL and SLDC during the fiscal year	1
(E)	Manpower as on 31st March (Closing balance)	1496

3.6.14 Administrative and General Expenses for FY 2021-22

3.6.14.1 Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and traveling allowances, other debits. The actual Administrative and General expenses for the year FY 2021-22 is as follows:

Table 15: Administrative and General Expenses for FY 2021-22

(Rs. Crs.)		
S. N	Particulars	Actual A&G Expenses
1	Lease/ Rent/Rates and taxes	0.45
2	Insurance	0.08
3	Telephone, Postage, Telegram & Telex Charges	0.14
4	Incentive & Award to Employees/Outsiders	0.12
5	Consultancy Charges	0.40
6	Other Professional Charges	0.42
7	Conveyance and travelling	4.04
8	License and Registration Fees	0.01
9	Vehicle Expenses	0.70
10	Fee And Subscriptions Books and Periodicals	4.38
11	Printing And Stationery	0.27
12	Advertisement Expenses	0.28



S. N	Particulars	(Rs. Crs.)
		Actual A&G Expenses
13	Contributions/Donations to Outside Institutes / Associations	0.03
14	Electricity Charges to Offices	1.39
15	Water Charges	0.00
16	Entertainment Charges	0.43
17	Miscellaneous Expenses	0.08
18	Legal Charges	0.11
19	Auditor's Fee	0.09
20	Freight On Capital Equipment	0.02
21	Purchase Related Advertisement Expenses	0.00
22	Vehicle Running Expenses Truck / Delivery Van	0.18
23	Fees including TA and DA for non-official member of Board	0.01
	Total A&G Expenses	13.63

3.7 Sharing of Gains & Losses for FY 2021-22

3.7.1 Based on the methodology prescribed in the MYT Regulations 2018, AEGCL has classified various heads of expenses under Controllable & Uncontrollable factors. Regulation 10.2 of MYT Regulations, 2018 specifies O&M expenses (excluding terminal liabilities with regard to employees on account of changes in pay scales or dearness allowance due to inflation) as controllable factors. Also, the one-third of the amount of such gain shall be passed on as a rebate in tariff. The relevant extract from regulation 12 of MYT Regulations, 2018 is provided below for ready reference.

“12 Mechanism for pass through of gains or losses on account of Controllable items

12.1 The approved aggregate gain to the Generating Company or Transmission Licensee or Distribution Licensee or SLDC on account of controllable items shall be dealt with in the following manner:

a) One-third of the amount of such gain shall be passed on as a rebate in tariff over such period as may be stipulated in the Order of the Commission under Regulation 9.5;

b) The balance amount, which will amount to two-third of such gain, may be utilised at the discretion of the Generating Company or Transmission Licensee or Distribution Licensee or SLDC.

13.2 The approved aggregate loss to the Generating Company or Transmission Licensee or Distribution Licensee or SLDC on account of controllable items shall be dealt with in the following manner:

a) One-third of the amount of such loss may be passed on as an additional charge in tariff over such period as may be stipulated in the Order of the Commission; and



b) The balance amount of loss shall be absorbed by the Generating Company or Transmission Licensee or Distribution Licensee or SLDC."

3.7.2 Based on the above regulations, the sharing of gains or (losses) on account of O&M expenses is shown in the following Table.

Table 16: Sharing of Gains / (Losses) -O&M expenses for FY 2021-22

(Rs. Crores)					
S N	Particulars	Actual	Normative	Gain / (Loss)	Gain/(Loss) to be shared with APDCL
		A	b	c=b-a	d=c x 1/3
1	Employee Cost	163.99	186.23	22.24	
2	Less: Terminal Liabilities	27.00	27.00	-	-
3	Employee Cost excl. Terminal Liabilities	136.98	159.23	22.24	7.41
4	Repair & Maintenance	13.42	24.31	10.89	3.63
5	Administrative & General Expenses	13.63	10.21	-3.42	-1.14
	Total (A)	164.03	193.75	29.72	9.91

3.7.3 In view of the above, AEGCL submits that normative O&M Expenses are higher than actual with respect to controllable factors, hence, the gain of Rs. 9.91 crores shall be shared and passed on through ARR. Hence, AEGCL requests the Hon'ble Commission to approve the sharing of gain as shown in the above table.

3.8 Capital Expenditure and Capitalization for FY 2021-22

3.8.1 The funding of Capital Expenditure is done through various sources namely Grants, Equity and Debt. Although capital expenditure should be funded by normative debt and equity, no infusion of equity has been made other than equity capital allocated to the companies in the Opening Balance Sheets (OBS) of the Companies in the Reorganization. The funding of Capitalisation excluding SLDC is shown in the following Table:

Table 17: Funding for Capitalisation for FY 2021-22

(Rs.Crs.)			
S.N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	Grant	605.27	130.61
2	Equity	0	0
3	Debt	77.46	43.60
4	Total Capitalisation	682.73	174.21



3.8.2 Further, scheme wise detail capitalization for FY 2021-22 is mentioned is provided the Revised capital Investment Plan as **Annexure-IV**:

3.9 Gross Fixed Assets for FY 2021-22

3.9.1 The opening GFA for FY 2021-22 (excluding SLDC) as submitted by AEGCL is shown in the below table:

Table 18: Gross Fixed Assets for FY 2021-22

(Rs Crores)

SN	Particulars	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year
1	Land owned under full ownership	38.67	6.31	-	44.98
2	Land under lease	-	-	-	-
3	Building	55.95	5.71	-	61.67
4	Hydraulic	2.64	-	-	2.64
5	Other Civil Works	127.85	3.40	-	131.26
6	Plant & Machinery	1,241.98	72.70	-	1,314.68
7	Lines & Cable Network	1,074.82	84.21	-	1,159.03
8	Vehicles	4.95	-	-	4.95
9	Furniture & Fixtures	7.00	0.77	-	7.77
10	Office Equipment	4.11	1.11	-	5.22
11	Any other assets	-	-	-	-
	Total	2,557.99	174.21	-	2,732.20

3.9.2 AEGCL requests the Hon'ble Commission to approve the capitalization amounting to Rs. 174.21 crores as shown in the above table for FY 2021-22.

3.10 Depreciation for FY 2021-22

3.10.1 As per the Audited Accounts for FY 2021-22, the Opening Gross Block of Fixed Assets and the opening depreciation for FY 2021-22 is Rs. 2557.99 crores and Rs. 1250.41 crores respectively. Depreciation has been calculated taking into consideration the opening balance of assets in the beginning of the year and the capitalization as shown in Table 17 and 18.



Table 19: Depreciation for FY 2021-22

(Rs.Crs.)

S.N.	Particulars	Depreciation Rate	Accumulated depreciation - beginning of the year	Additions during the year
1	Land owned under full ownership	-	-	-
2	Land under lease	3.34%	0.05	0.01
3	Building	3.34%	23.56	2.05
4	Hydraulic	5.28%	2.51	-
5	Other Civil Works	3.34%	18.84	4.17
6	Plant & Machinery	5.28%	551.49	72.22
7	Lines & Cable Network	5.28%	765.13	59.28
8	Vehicles	9.50%	4.45	0.00
9	Furniture & Fixtures	6.33%	3.94	0.45
10	Office Equipment	6.33%	3.17	0.58
	Total		1,373.14	138.76
(a)	Total Depreciation			1511.90
(b)	Gross Fixed Assets excluding Land			2687.22
(c)	Grant towards GFA			1682.00
(d)	Gross Depreciation during the year			138.76
(e)	Less: Dep towards assets through Grant/Consumer contribution			86.85
(f)	Depreciation for the year (excl. assets funded through Grant)			51.91

3.10.2 AEGCL requests the Hon'ble Commission to approve the depreciation amounting to Rs. 51.91 Crore after excluding assets funded through grant as shown in above table for FY 2021-22.

3.11 Interest and Finance Charges for FY 2021-22

3.11.1 The Hon'ble Commission vide Tariff Order dated 21.03.2022 has approved the net normative closing loan as Rs. 205.68 Crores for FY 2020-21 and the same has been considered as net normative opening loan for FY 2021-22. Addition of normative loan and repayment during the year was computed as Rs. 43.60 Crores and Rs. 51.91 Crores respectively. Also, the finance charges of Rs. 0.01 crore has been considered as bank commission/charges. Accordingly, Interest on loan arrived at Rs. 20.00 Crores.

Table 20: Normative Interest and Finance Charges for FY 2021-22

(Rs. Crs.)

Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
Net Normative Opening Loan	217.95	205.68



(Rs. Crs.)		
Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
Addition of normative loan during the year	77.46	43.60
Normative Repayment during the year	35.97	51.91
Net Normative Closing Loan	259.44	197.37
Interest Rate	10.08%	9.92%
Interest Expenses on Loan	24.06	19.92
Finance Charges		0.01
Total Interest and Finance Charges	24.06	20.00

3.11.2 AEGCL requests the Hon'ble Commission to approve the normative Interest & Finance Charges amounting to Rs. 20.00 Crore as mentioned for FY 2021-22.

3.12 Interest on Working Capital for FY 2021-22

3.12.1 AERC (MYT Regulations), 2018 provides for the interest on working capital. AEGCL computed the working capital based on the normative formula prescribed in the MYT Regulations, 2018.

3.12.2 The interest on working capital for FY 2021-22 computed by AEGCL against the approved interest on working capital by the Hon'ble Commission is shown below:

Table 21: Interest on Working Capital for FY 2021-22

S.N.	Particulars	Unit	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	O&M expenses for 1 month	Rs. Crs.	18.3	18.42
2	Maintenance spares @ 15% of O&M	Rs. Crs.	32.94	33.16
3	Receivables for two months	Rs. Crs.	59.40	70.53
4	Total Working Capital	Rs. Crs.	110.64	122.11
5	Rate of Interest	%	10.00%	10.00%
6	Interest on Working Capital	Rs. Crs.	11.06	12.21

3.12.3 AEGCL requests the Hon'ble Commission to approve the Interest on Working Capital amounting to Rs. 12.21 Crore as shown in the above table.

3.13 Return on Equity for FY 2021-22

3.13.1 As per the MYT Regulations 2018 issued by the Hon'ble Commission, a return at 15.5% on the equity base is considered as reasonable and hence liable to be recovered through Tariff. Accordingly, AEGCL has computed the return on equity considering a rate of return @ 15.50% for FY 2021-22 as shown below.

**Table 22: Return on Equity for FY 2021-22**

(Rs. Crore)

S.N	Particulars	Units	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	Equity (Opening Balance)	Rs. Crs.	99.93	99.93
2	Net additions during the year	Rs. Crs.	-	-
3	Less: Reduction during the year	Rs. Crs.	-	-
4	Equity (Closing Balance)	Rs. Crs.	99.93	99.93
5	Average Equity	Rs. Crs.	99.93	99.93
6	Rate of Return on Equity	%	15.50%	15.50%
7	Return on Equity	Rs. Crs.	15.49	15.49

3.13.2 AEGCL requests the Hon'ble Commission to approve the return on equity amounting to Rs. 15.49 Crore as shown in the above table.

3.14 Other Debit for FY 2021-22

3.14.1 AEGCL submits that other debit has been claimed as per the Audited Annual Accounts of FY 2021-22.

Table 23: Other Debit for FY 2021-22

(Rs. Crs.)

S. N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	Loss of obsolescence of stores, etc	-	1.58
2	Loss to fixed assets on account of flood, cyclone, fire, etc.	-	1.80
	Total	-	3.39

3.14.2 AEGCL requests the Hon'ble Commission to approve the other debit amounting to Rs. 3.39 Crore as shown in above table.

3.15 Bulk Supply Tariff (BST) – Terminal Benefits for FY 2021-22

3.15.1 AEGCL submits that the BST has been calculated as Rs. 0.15 per kwh of energy sent out to APDCL as certified by SLDC on 15.11.2022 (Attached as **Annexure II**). The same is claimed for Pension Fund (special charges for Terminal Benefits.)

Table 24: Bulk Supply Tariff (BST) – Terminal Benefits for FY 2021-22

(Rs.Crs.)

S.N	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	Energy Sent out to APDCL (MU)	146.64	10262.67
2	BST Charge (Rs. /kWh)		0.15
3	Total (3=1*2/10)	146.64	153.94



3.15.2 AEGCL requests the Hon'ble Commission to approve the special charges on BST accounting to Rs. 153.94 Crores as shown in above table.

3.16 Non-Tariff Income for FY 2021-22

3.16.1 The amount of Non-Tariff Income mostly comprises of income from investments and misc. receipts. The actual amount received during FY 2021-22 is considered under the truing up for FY 2021-22.

Table 25: Non-Tariff Income for FY 2021-22

(Rs.Crs.)

S.N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
A	Income from Investment, Fixed & Call Deposits		
	Income from Investments		1.18
	Interest on fixed deposits		45.91
	Income on other investments (Dividend)		1.78
	Interest from Banks		1.18
	Interest on GPF		-2.05
	Sub Total		48.00
B	Other Non-Tariff Income		
	Rental from contractors/others		0.48
	Inspection Bungalow/Guest house charges		0.03
	Electricity charges from employees		0.00
	Sale of tender forms		0.04
	Penalties recovered from suppliers/contractors	63.73	-2.57
	Income from Supervision/Service charges on deposit works		6.51
	Income from Fibre Optic Network		0.69
	Revised testing bill raised against Aradhana Agency by T&C Dibrugarh.		0.03
	Testing bills raised against testing of transformer, circuit breaker, etc.		0.01
	Rental charges for occupying land at 132/33KV Baghja by Shyama Power India Ltd.		0.01
	LR Bill of Techno Electric Company & Engineering Pvt Ltd Raised		0.27
	Bill for Transformer Oil filtration raised against APDCL.		0.11



(Rs.Crs.)			
S.N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
	Hire Charges from Contractors/Suppliers/Others		0.18
	Sale of scrap		0.88
	Rentals from staff quarters		0.14
	Sub-Total		6.81
	Total	63.73	54.80

3.16.1 AEGCL requests the Hon'ble Commission to approve the Non-Tariff income amounting to Rs. 54.80 Crore as shown in above table.

3.16.2 In accordance with Regulation 68 of the MYT Regulations, 2018, AEGCL has considered 1/3rd of Dividend from North East Transmission Company Limited (NETCL) for FY 2021-22.

"Where the Transmission Licensee has engaged in any Other Business, an amount equal to one-third of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from the aggregate revenue requirement in calculating the annual transmission charges of the Transmission Licensee"

3.17 Deduction of Interest on GPF from Non-Tariff Income

3.17.1 AEGCL has been utilizing GPF subscription from its employees as internal resources and the fund has been parked at different banks from which AEGCL has been earning interest. It has been shown as the other income in the profit and loss account of AEGCL which has been adjusted with the ARR at the time of filing the Tariff Petition. As such AEGCL is facing losses due to normative calculation of interest and finance charges.

3.17.2 Also, it is pertinent to mention that the Hon'ble Commission vide tariff order dated 15.02.2021 has approved deduction of interest on GPF from Non-Tariff Income.

3.17.3 Therefore, AEGCL prays to the Hon'ble Commission to allow the interest on GPF amounting to Rs. 2.05 Crores for FY 2021-22 by deducting the same from Non-Tariff Income.

**3.18 Open Access Consumer's wheeling charges**

3.18.1 The Hon'ble Commission vide tariff order dated 15.02.2021 has approved the wheeling charges from Open Access Consumers separately considered as additional revenue of AEGCL for the computation of Revenue Gap/(Surplus) in True-up of AEGCL for FY 2021-22.

3.18.2 Therefore, in view of the above, AEGCL has considered the wheeling charges from Open Access Consumers amounting to Rs. 11.94 Crores as additional revenue of AEGCL for computation of Revenue Gap/(Surplus) in True-up for FY 2021-22 and request the Hon'ble Commission to approve the same.

3.19 Transmission Incentive for FY 2021-22

3.19.1 AEGCL submits that regulation 65 of MYT Regulations 2018 provides the incentive for transmission utility. Based on the said regulation, AEGCL has claimed an amount of Rs. 2.64 Crore during FY 2021-22 as incentive for higher Transmission Availability. This had been calculated based on the actual monthly transmission availability data in which the transmission availability was higher than 98.50% (Normal Availability). Month wise computation of the Transmission Incentive for the FY 2021-22 is shown in the following table.

Table 26: Transmission Incentive for FY 2021-22**(Rs Crores)**

Sl.No.	Month	Actual transmission availability (in %)	Incentive/(Disincentive) (in Rs. Crore)
1	April'21	99.23	0.24
2	May'21	99.33	0.28
3	June'21	99.06	0.19
4	July,21	98.98	0.16
5	August'21	99.24	0.25
6	September'21	99.05	0.18
7	October'21	99.27	0.26
8	November'21	99.22	0.24
9	December,21	99.32	0.28
10	January'22	99.08	0.20
11	February' 22	98.97	0.14
12	March'22	99.10	0.21
	Total	99.16	2.64



3.19.2 AEGCL requests the Hon'ble Commission to approve the transmission incentive amounting to Rs. 2.64 crores for FY 2021-22 as shown in the above table. The details of the Transmission Availability Factor is attached as **Annexure-XI**.

3.20 Truing Up for FY 2021-22 after Sharing of Gains & Losses for FY 2021-22

3.20.1 AEGCL submits that based on the above sections, total ARR for FY 2021-22 is mentioned below:

Table 27: Truing Up for FY 2021-22

(Rs. Crs.)			
S.N.	Particulars	Approved in T.O. dtd 15.02.2021	AEGCL Submission
1	O&M Expenses	219.59	221.06
a	Employee Cost	185.10	186.23
b	R&M Expenses	23.84	24.31
c	A&G Expenses	10.26	10.21
d	Training Expenses	0.40	0.30
2	Depreciation	35.97	51.91
3	Interest & Finance Charges	24.06	20.00
4	Interest on Working Capital	11.06	12.21
5	BST for Pension Trust Fund	146.64	153.94
6	Return on Equity	15.49	15.49
7	Income Tax	-	-
8	Other debits	-	3.39
9	Less: Non-Tariff Income/ Other Income	63.73	54.80
10	Aggregate Revenue Requirement	389.09	423.18
11	Incentive on Transmission Availability	-	2.64
12	Add: Sharing of (Gains)/Loss	-	(9.91)
13	ARR after Sharing (Gains)/Losses and Incentive	389.09	415.92
14	Revenue with Approved Tariff for FY 2021-22	389.09	389.09
15	Less: Revenue from STOA/MTOA Charges		11.94
16	ARR after reducing revenue from STOA/MTOA charges	-	403.98
17	Revenue Gap /(Surplus) for FY 2021-22	-	14.89

3.20.2 The Hon'ble Commission is requested to approve the above ARR of Rs. 403.98 crore and allow AEGCL to pass on the revised revenue gap of Rs. 14.89 crores for FY 2021-22.

**4 ANNUAL PERFORMANCE REVIEW OF FY 2022-23****4.1 Preamble**

4.1.1 This section outlines the Annual Performance Review for FY 2022-23 whereby it highlights the performance of AEGCL for FY 2022-23 based on actuals of H1 and estimated H2 for FY 2022-23.

4.1.2 As per the provisions of MYT Regulations, 2021, AEGCL hereby submits the Annual Performance Review for FY 2022-23 comparing actual performance during April to September (H1) and estimates for October to March (H2) of FY 2022-23 with approved figures for FY 2022-23 by Hon'ble Commission vide Tariff Order dated 21.03.2022. In addition, AEGCL wants to highlight that the GFA of SLDC has been segregated from AEGCL's GFA and is being filed separately under SLDC's Tariff Petition for FY 2022-23.

4.2 Transmission Loss for FY 2022-23

4.2.1 As stated in regulation 71 of AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021, "The energy losses in the transmission system of the Transmission Licensee, as determined by the State Load Dispatch Centre and approved by the Commission, shall be borne by the Transmission System Users pro-rata to their usage of the intra-State transmission system.

"Provided that the Commission may stipulate a trajectory for reduction of transmission losses as a part of Multi Year Tariff framework applicable to the Transmission Licensee."

4.2.2 In Tariff Order dated 21.03.2022, the Hon'ble Commission has approved transmission loss as 3.27% for FY 2022-23. AEGCL has achieved a significant reduction in Transmission losses during recent years. These efforts shall continue and will be enhanced. However, loss reduction is a slow process and becomes increasingly difficult as losses approach the technical threshold. The estimated transmission loss for FY 2022-23 based on actual half yearly results is shown below.

Table 28: Transmission Loss for FY 2022-23

S.N.	Particulars	Approved in T.O. dtd 21.03.2022	AEGCL Estimation
1	Energy Injected (MU)		11922.38
2	Energy Sent Out to APDCL (MU)		11342.25
3	Energy Sent Out to OA Consumers (MU)		184.31
4	Total Energy Sent Out		11526.56
4	Transmission Loss (MU)		395.82
5	Transmission Loss (%)	3.27%	3.32%



- 4.2.3 Further, the energy balance of 6 months actual and 6 months estimated of AEGCL, certified by SLDC is attached as **Annexure-II**. As per table above, AEGCL requests the Hon'ble Commission to approve the Transmission loss of 3.32% for FY 2022-23.

4.3 Estimation of Expenses for the FY 2022-23

- 4.3.1 The components for the calculation of total expenses for FY 2022-23 are as follow:

- Operation and Maintenance Expenses
- Depreciation
- Interest and Finance Charges
- Interest on Working Capital
- Return on Equity
- Bulk Supply Tariff (BST)
- Contribution towards Contingency Reserves

Less:

- Non-Tariff Income
- Income from other business

4.4 Operation and Maintenance Expenses for FY 2022-23

- 4.4.1 The Regulation 67.5 and 67.8 of the AERC (MYT) Regulations, 2021 specifies the normative Operation and Maintenance (O&M) expenses allowed for existing Transmission Licensee for the said control period. The relevant provision is as follows:

"67.6 Existing Transmission Licensee

...

67.6.3 The O&M expenses for the nth year and also for the year immediately preceding the Control Period shall be approved based on the formula given below:

$$O\&M_n = R\&M_n + EMP_n + A\&G_n$$

Where –

O&M_n – Operation and Maintenance expense for the nth year;

EMP_n – Employee Costs for the nth year;

R&M_n – Repair and Maintenance Costs for the nth year;

A&G_n – Administrative and General Costs for the nth year;

67.6.4 The above components shall be computed in the manner specified below:

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (CPI \text{ inflation})$$

$$R\&M_n = K \times (GFA_{n-1}) \times (WPI \text{ inflation}) \text{ and}$$

$$A\&G_n = (A\&G_{n-1}) \times (WPI \text{ inflation}) + Provision$$



Where -

- *EMP_{n-1} – Employee Costs for the (n-1)th year;*
- *A&G_{n-1} – Administrative and General Costs for the (n-1)th year;*
- *Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.*
- *'K' is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-a-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*
- *CPI inflation – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;*
- *WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;*
- *GFA_{n-1} --- Gross Fixed Asset of the transmission licensee for the n-1th year;*
- *G_n is a growth factor for the nth year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, and any other factor that the Commission feels appropriate.*

67.7 O&M Norms for New Transmission Licensee

For the New transmission licensees, the year-wise O&M norms shall be determined on case to case basis:

Provided that the same shall not be applicable to those new projects which are awarded on a competitive bidding basis.

Explanation: The term "New Transmission Licensee" shall mean the transmission licensee(s) for which Transmission Licence is granted by the Commission prior to or after the date of effectiveness of these Regulations, and whose transmission project assets are commissioned after March 31, 2022.

67.8 O&M Sharing between two Transmission Licensees

67.8.1 For such Transmission Licensees whose bays are installed in the premises of and maintained by another Transmission Licensee, the O&M expense for such assets shall be allowed in accordance with the norms applicable for the Transmission Licensee who performs the O&M of such assets:

Provided that the Transmission Licensees shall mutually agree on sharing of such allowed O&M expenses:



Provided further that Transmission Licensees shall project addition of such assets over the Control Period separately in their Capital Investment Plan to be submitted in accordance with Regulation 6."

- 4.4.2 During FY 2022-23, based on methodology specified by the MYT Regulations, 2021, the Normative O&M expenses of AEGCL works out to be Rs. 239.05 crores which is inclusive of Employee cost, Repair & Maintenance charges, Administration & General Expenses and Training Expenses. The following table provides the summary of Normative O&M Expenses for FY 2022-23 excluding the O&M expenses of SLDC.

Table 29: Operation and Maintenance Expenses for FY 2022-23
(Rs.Crs.)

S.N.	Particulars	Approved in T.O. dtd 21.03.2022	AEGCL Submission
1	O&M Expenses	223.11	239.05
a	Employee Cost	184.39	199.18
b	R&M Expenses	28.89	29.12
c	A&G Expenses	9.83	10.75

4.4.3 WPI Inflation computation for FY 2022-23

- 4.4.3.1 The average increase in the Wholesale Price Index (WPI) for immediately preceding three years gives the WPI Inflation for FY 2022-23. Hence the WPI Index from FY 2019-20 to FY 2021-22 is considered for computation purpose.

Table 30: WPI Inflation Computation for FY 2022-23

Fiscal	WPI Index	YOY Change %
FY 2021-22	139.41	13.00%
FY 2020-21	123.37	1.29%
FY 2019-20	121.80	1.67%
Average WPI Inflation (Last 3 Years)		5.32%

- 4.4.3.2 WPI inflation for FY 2022-23 has been computed as an average increase of WPI index for period from FY 2019-20 to FY 2021-22 which works out to 5.32%.

4.4.4 CPI Inflation computation for FY 2022-23

- 4.4.4.1 The average increase in the Consumer Price Index (CPI) for immediately preceding three years gives the CPI Inflation for FY 2022-23. Hence the CPI Index from FY 2019-20 to FY 2021-22 is considered for computation purpose.

**Table 31: CPI Inflation Computation for FY 2022-23**

Fiscal	CPI Index	YOY Change %
FY 2021-22	356.06	5.13%
FY 2020-21	338.69	5.02%
FY 2019-20	322.50	7.53%
Average CPI Inflation (Last 3 Years)		5.89%

4.4.4.2 CPI inflation for FY 2022-23 has been computed as average increase of CPI index for period from FY 2019-20 to FY 2021-22 which works out to 5.89%.

4.4.5 Normative Calculation of R&M expense for FY 2022-23

4.4.5.1 Regulation 67.6.4 of AERC (MYT Regulations), 2021 provides the manner in which components of O&M expenses shall be computed. The methodology for R&M expense is as follows:

$$R\&M_n = K \times (GFA_{n-1}) \times (WPI \text{ inflation})$$

Table 32: Normative R&M expenses for FY 2022-23

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Opening GFA for previous year	2,557.77	2,557.99
2	Closing GFA for previous year	2,708.47	2,732.20
3	Average GFA for previous year	2,633.12	2,645.09
4	K Factor	0.75%	0.75%
5	WPI Inflation	4.13%	5.32%
6	Normative R&M Expense	20.66	20.89
7	Provision for Colony Maintenance of AEGCL	5.93	5.93
8	Provision for Emergency Restoration System	2.30	2.30
9	Total R&M Expenses	28.89	29.12

4.4.5.2 The closing GFA for FY 2021-22 has been considered as opening GFA for FY 2022-23. The “K” factor of AEGCL has been considered as 0.75% as approved by the Hon’ble Commission in the Tariff Order dated 21.03.2022.

4.4.5.3 AEGCL has excluded the assets of SLDC from the opening and closing GFA of the previous year while computing normative R&M for FY 2022-23. The SCADA AMC cost is accounted in the SLDC Petition, which is not included in AEGCL's GFA for 2022-23.

**4.4.6 Provision for Colony Maintenance of AEGCL**

4.4.6.1 The Hon'ble Commission vide tariff order dated 21.03.2022 has approved amount of Rs.5.93Cr for FY 2022-23 for restoration of old colony buildings. AEGCL has already initiated the process and expenses of the same will be incurred during the current financial year. The details of the fund utilization are being provided under **Annexure-V**.

4.4.7 Provision for Emergency Restoration System (ERS)

4.4.7.1 The Hon'ble Commission has approved Rs.2.30 Cr vide Tariff Order dated 21.03.2022 for FY 2022-23. For procurement of ERS, issuance of Request For Proposal for procurement of two ERS towers is in process, technical specification has been reviewed by design wings of AEGCL. Details have been collected from the various field offices of AEGCL regarding the existing ERS towers and data has been prepared containing all the information received for optimization of spares and usage of the existing skilled manpower of AEGCL associated with the present available ERS towers. The bidding process is expected to be completed during H2 and the contractor to be finalized. In view of the same AEGCL request the Hon'ble Commission to allow the approved amount of Rs. 2.30 crores for procurement of ERS.

4.4.7.2 Therefore, in view of the above, AEGCL requests the Hon'ble Commission to approve an amount of Rs. 29.12 crores for Repair and Maintenance expenses including provision for colony maintenance of AEGCL and Emergency Restoration System for FY 2022-23.

4.4.8 Normative Calculation of Employee Expense for FY 2022-23

4.4.8.1 In accordance with Regulation 67.6.4 of AERC (MYT Regulations), 2021 provides the manner in which components of O&M expenses shall be computed. The methodology for employee expense is as follows:

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (CPI \text{ inflation})$$

Table 33: Normative Employee Expense for FY 2022-23

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Base Employee Cost (n-1)	173.00	186.23
2	CPI Inflation	5.53%	5.89%
3	Gn (Growth Factor for nth Year)	1.00%	1.00%
4	Normative Employee Cost	184.39	199.18



4.4.8.2 The normative employee cost for FY 2021-22 of AEGCL has been considered as base employee cost for FY 2022-23 after deducting the approved base employee cost of SLDC for previous year.

4.4.8.3 The Gn (Growth Factor) of AEGCL has been considered as 1.00% as approved by the Hon'ble Commission in the Tariff Order dated 21.03.2022.

4.4.8.4 AEGCL requests the Hon'ble Commission to approve the normative Employee expenses amounting to Rs. 199.18 Crores for FY 2022-23 as shown in the above table.

4.4.9 Normative Calculation of Administrative & General Expenses for FY 2021-22

4.4.9.1 In accordance with Regulation 67.6.4 of AERC (MYT Regulations), 2021 provides the manner in which components of O&M expenses shall be computed. The methodology for Administrative and General Expenses is as follows:

$$A\&G_n = (A\&G_{n-1}) \times (WPI \text{ inflation}) + \text{Provision}$$

Table 34: Normative A&G expenses for FY 2022-23

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	A&G Expense for Previous year	9.44	10.21
2	WPI Inflation	4.13%	5.32%
3	Normative A&G Expense for the year	9.83	10.75

4.4.9.2 The normative A&G expense for FY 2021-22 of AEGCL has been considered as base A&G expense for FY 2022-23 and requests the Hon'ble Commission to approve the normative A&G expenses amounting to Rs. 10.75 crores for FY 2022-23 as shown in the above table.

4.4.9.3 In view of the above, AEGCL requests the Hon'ble Commission to approve the normative O&M expenses amounting to Rs. 239.05 crores as shown in the above tables for FY 2022-23.

4.4.9.4 Following Sections provide the details of O&M expenses as provided in the provisional half yearly statements and estimated for FY 2022-23.

**4.4.10 Repair and Maintenance Expenses for FY 2022-23**

4.4.10.1 While arriving R&M expenses for the FY 2021-22, actual R&M expenses incurred during first 6 months plus estimate for the next 6 months has been considered. It is pertinent to note that the R&M works of assets during the H1 is minimal on account of monsoon. Assam receives abundant rainfall in the monsoon. The rain season starts off with the month of June and lasts till October. Hence the R&M works are carried out post monsoon and hence H2 expenses are usually twice as the H1 expenses.

Table 35: Repair and Maintenance Expenses of FY 2022-23

(Rs. Crores)

S.N	Particulars	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
1	Plant & Machinery	2.18	8.86	11.04
2	Buildings	0.99	1.39	2.38
3	Civil works	0.16	0.22	0.38
4	Hydraulic Works	0.00	0.00	0.00
5	Lines, Cable Networks etc.	2.26	4.20	6.46
6	Vehicles	0.09	0.13	0.23
7	Furniture & Fixtures	0.05	0.06	0.11
8	Office Equipment	0.14	0.15	0.29
9	Total	5.87	15.02	20.89

4.4.10.2 AEGCL requests the Hon'ble Commission to approve the proposed expenses under R&M for the FY 2022-23.

4.4.11 Employee Expenses for FY 2022-23

4.4.11.1 Employee expenses include salaries, bonus, other benefits like medical expense reimbursement, LTA, etc. and terminal benefits in the form of pension, gratuity, leave encashment, staff welfare etc.

4.4.11.2 AEGCL submits that the employee costs for the FY 2022-23 have been estimated based on 6 months actual data and estimation for the next 6 months. Actual salary paid for the month of Oct 2022 has been considered as the salaries for the month of November 2022 to March, 2023.

Table 36: Employee Expenses of FY 2022-23

(Rs. Crores)

S.N	Particulars	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
1	Salaries	47.18	57.00	104.18
2	Dearness Allowance (DA)	14.70	19.00	33.70



(Rs. Crores)				
S.N	Particulars	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
3	Other Allowances & Relief	7.58	10.00	17.58
4	Honorarium/Overtime	0.08	0.50	0.58
5	Bonus/ Exgratia to Employees	0.13	0.25	0.38
6	Medical Expenses Reimbursement	0.09	1.00	1.09
7	Travelling Allowance (Conveyance Allowance)	0.00	1.00	1.00
8	Leave Travel Assistance	0.00	0.00	0.00
9	Earned Leave Encashment	1.30	1.50	2.80
10	Payment Under Workman's Compensation and Gratuity	3.03	3.50	6.53
11	Staff Welfare Expenses	0.02	0.05	0.07
12	Contribution To Terminal Benefits	10.36	13.00	23.36
13	Total Employee Costs	84.46	106.80	191.26

4.4.11.3 The detail of the manpower of AEGCL excluding SLDC for FY 2022-23 is provided in the table below:

Table 37: Manpower details of AEGCL for FY 2022-23

S.N.	Particulars	Manpower	Projection
(A)	Manpower as on 1st April (Opening Balance)	1496	1496
(B)	Retirement during the Financial Year	53	53
(C)	Recruitment during the Financial Year	0	762
(D)	Transfer within sister company and within AEGCL and SLDC during the fiscal year	(+)9	(+)16
(E)	Manpower as on 31st March (Closing balance)	1452	2221

4.4.11.4 AEGCL requests the Hon'ble Commission to approve the proposed expenses of Rs. 191.26 crores. under employee cost for FY 2022-23.

4.4.12 Administrative and General Expenses for FY 2022-23

4.4.12.1 Administrative expenses include rents, telephone and other communication expenses, professional charges, conveyance and traveling allowances, etc. While arriving A&G expenses for the FY 2022-23, actual A&G expenses incurred during first 6 months plus estimate for the next 6 months has been considered. Estimated A&G Expense for FY 2022-23 is as shown below.

Table 38: Administrative and General Expenses for FY 2022-23



(Rs. Crores)				
S.N	Particulars	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
1	Lease/ Rent/Rates and taxes	0.39	0.16	0.55
2	Insurance	0.06	0.73	0.79
3	Telephone, Postage, Telegram & Telex Charges	0.06	0.05	0.11
4	Consultancy Charges	0.27	0.23	0.50
5	Other Professional Charges	0.28	0.17	0.45
6	Conveyance and travelling	0.78	0.24	1.02
7	License and Registration Fees	0.01	0.01	0.02
8	Vehicle Expenses	2.44	1.55	3.99
9	Fee And Subscriptions Books and Periodicals	3.36	0.64	4.00
10	Printing And Stationery	0.18	0.10	0.28
11	Advertisement Expenses	0.27	0.03	0.30
12	Contributions/Donations to Outside Institutes / Associations	0.00	0.03	0.03
13	Electricity Charges to Offices	0.30	1.23	1.53
14	Water Charges	0.00	0.00	0.00
15	Entertainment Charges	0.07	0.32	0.39
16	Miscellaneous Expenses	0.08	0.01	0.09
17	Legal Charges	0.08	0.04	0.12
18	Auditor's Fee	0.04	0.05	0.09
19	Freight On Capital Equipments	0.01	0.01	0.02
20	Vehicle Running Expenses Truck / Delivery Van	0.01	0.12	0.13
21	Other Freight	0.01	0.01	0.02
22	Fees including TA and DA for non-official member of the Board	0.09	0.11	0.20
23	Fees for conducting recruitment & Other Departmental Examinations	0.01	0.00	0.01
24	Participation fees paid for training/conference	0.00		0.00
25	Training of Staff and Officers	0.11	0.08	0.19
26	Total A&G Expenses	8.92	5.92	14.83

4.4.12.2 AEGCL requests the Hon'ble Commission to approve the proposed expenses under A&G for the FY 2022-23.

4.4.13 Training and Capacity Building of AEGCL Employees for FY 2022-23

4.4.13.1 AEGCL submits that most of the scheduled training courses in the 1st half (April 22 to Sep 22) of FY 2022-23 have been conducted online, however, the online/offline training courses has been initiated by AEGCL for the 2nd half of FY 2022-23. AEGCL has already conducted few online/offline trainings in the 1st half as detailed below:



Table 39: Training details for FY 2022-23 (H1)

S N	Name of Training/Webinar/Conference	Start Date	End date	Self-Funded/Funded
1	LS 48: Use of Digital Technologies in Transmission System O&M	02-04-2022	02-04-2022	under CBIS-NERPSIP
2	Cloud Computing	04-04-2022 & 05-04-2022	06-04-2022 to 08-04-2022	Govt of India (Ministry of Electronics & Information Technology)
3	LS 49: Improved Power System Reliability in NER – A case study	09-04-2022	09-04-2022	under CBIS-NERPSIP
4	LS 50: Operational Challenges and Possible Solutions for Powergrid of 2030	16-04-2022	16-04-2022	under CBIS-NERPSIP
5	LS 51: One Solar, One World, One Grid – A Framework	23-04-2022	23-04-2022	under CBIS-NERPSIP
7	Public Procurement Act, 2017 & Rules 2020 and Government e-Marketplace	07-05-2022	07-05-2022	ASPIRe (AASC)
8	Webinar – “Cyber – Risk Oversight in light of Ukraine-Russia war	13-05-2022	13-05-2022	NPTI, NCIIPC & CyberVidyaPeeth Foundation
9	Conference – “Modernizing Cyber Security in Grid Operations	23-05-2022	23-05-2022	TA/DA to be borne from SLDC Fund
10	LS 53: Estimation of Fault location in Transmission Line	21-05-2022	21-05-2022	under CBIS-NERPSIP
11	Usage & Integration of Threat Dissemination Platform (TDP)	27-05-2022	27-05-2022	NCIIPC (National Critical Information Infrastructure Protection Centre)
12	LS 54: Cyber Security for Transmission System	28-05-2022	28-05-2022	under CBIS-NERPSIP
13	Cyber Security training & certification program (SLDC personnel)	30-05-2022	10-06-2022	Govt of India (CEA mandate)
14	Basic Level Preparatory Course on “Power System Operation”	06-06-2022	18-06-2022	Govt of India (LDC Fund)
15	LS 55: Monitoring & Maintenance of Transformer Insulating Oil	04-06-2022	04-06-2022	under CBIS-NERPSIP
16	LS 56: Condition Monitoring of Transformer Lines	11-06-2022	11-06-2022	under CBIS-NERPSIP



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S N	Name of Training/Webinar/Conference	Start Date	End date	Self-Funded/Funded
17	Training on "PM Gati Shakti Portal"	15-06-2022	17-06-2022	BISAG-N, Ahmedabad (AASC)
18	LS 57: Safety Aspects during Construction of Transmission	18-06-2022	18-06-2022	under CBIS-NERPSIP
19	PSSE Training by SIEMENS	27-06-2022	29-06-2022	under AMC of SIEMENS
20	LS 58: Condition Monitoring of Transmission Lines	25-06-2022	25-06-2022	under CBIS-NERPSIP
21	1-day workshop on "Citizen Centric online grievance handling platform - CPGRAMS"	08-07-2022	08-07-2022	Govt of Assam (AASC)
22	LS 59: Commissioning of transformer and reactors in POWERGRID	02-07-2022	02-07-2022	under CBIS-NERPSIP
23	Innovation for Results	18-07-2022	19-07-2022	Govt of Assam (AASC)
24	LS 60: Recent Improvements in Technical Specifications of Transformer & Reactors	09-07-2022	09-07-2022	under CBIS-NERPSIP
25	Reservation in Government Services	18-07-2022	20-07-2022	Govt of Assam (AASC)
26	LS 61: Latest Practices & Future Roadmap in Transformer	16-07-2022	16-07-2022	under CBIS-NERPSIP
27	State Public Procurement Portal (SPPP) and Govt e-marketplace (GeM)	26-07-2022	26-07-2022	ASPIRE (AASC)
28	Capacity Building Training on Transmission Line	26-07-2022	26-07-2022	PMC, PI (Feedback)
29	LS 62: Operation & maintenance of OLTC	23-07-2022	23-07-2022	under CBIS-NERPSIP
30	LS 63: Quality management System in POWERGRID	30-07-2022	30-07-2022	under CBIS-NERPSIP
31	LS 64: 765 kV & 400 kV transformer design aspects - utility perspectives	06-08-2022	06-08-2022	under CBIS-NERPSIP
32	Digital Transformation in Governance	24-08-2022	24-08-2022	Govt of Assam (AASC)
33	Teamwork and collaboration	22-08-2022	23-08-2022	AASC
34	LS 65: Failure Analysis of Transformer & Reactor	13-08-2022	13-08-2022	under CBIS-NERPSIP
35	Electrical Safety and Inspection of Electrical Installations under IE norms	22-08-2022	24-08-2022	



S N	Name of Training/Webinar/Conference	Start Date	End date	Self-Funded/Funded
36	LS 66: Tests on transformer and reactors: Purpose, Result Interpretation and Case Studies - Pt-I	20-08-2022	20-08-2022	under CBIS-NERPSIP
37	LS 67: High Voltage Bushings - failure Mode and Prevention	27-08-2022	27-08-2022	under CBIS-NERPSIP
38	Creating a culture of innovation	12-09-2022	13-09-2022	AASC
39	LS 68: Design Aspects of GIS	03-09-2022	03-09-2022	under CBIS-NERPSIP
40	E&S and OHS	05-09-2022	05-09-2022	PMC organized
41	LS 69: Tests on Transformers and Reactors - part 2: Purpose, Result interpretation & case studies	10-09-2022	10-09-2022	under CBIS-NERPSIP
42	LS 70: Procedure for retrofitting high impedance 220 kV busbar protection (DMT layout) with centralized numerical low impedance	17-09-2022	17-09-2022	under CBIS-NERPSIP
43	PDH equipment supplied by M/S Tejas networks Ltd as a part of package IVC project	20-09-2022	21-09-2022	M/S PGCIL at NERTS
44	SPPP & Govt e-marketplace	28-09-2022	28-09-2022	ASPIRE (AASC)
45	LS 72: CIGRE Session 2022- Experience & learning	01-10-2022	01-10-2022	under CBIS-NERPSIP
46	Price Variation Clause	12-10-2022	12-10-2022	IEEMA sponsored
47	Workshop on NPS and PoP Operations	12-10-2022	13-10-2022	Protean e-Gov Technologies Ltd
48	Symposium on Artificial Intelligence and Internet of Things	10-11-2022	10-11-2022	Centre for e-govt (AASC)

4.4.13.2 Moreover, AEGCL is planning to conduct few online/offline trainings are provided below during the H2 of FY 2022-23 as mentioned below:

Table 40: Training details for FY 2022-23 (H2)

S.N.	Name of Program	Estimated cost (Rs)
1	Training for Technical Non-Executive Employees	150000



2	Training for Non-Technical Non-Executive Employees	150000
3	Contract Management	150000
4	Regulatory framework in Power sector	150000
5	Disciplinary proceedings & Departmental inquiry	50000
6	Indian Accounting Standard	50000
7	Management of Hypertension emergencies, Myocardial infraction & Critical care patients follow-up (for MO)	10000
8	Any other area where training need arises in the FY 2022-23	50000
	Total	760000

4.4.13.3 AEGCL is expected to incur Rs. 0.19 Cr. during FY 2022-23. However, the same has not been considered separately in the ARR and included under A&G expenses. AEGCL requests the Hon'ble Commission to approve the proposed expenses under training for the FY 2022-23.

4.5 Capital Expenditure and Capitalization for FY 2022-23

4.5.1 AEGCL submits that the Capitalisation for FY 2022-23 has been estimated based on 6 months actual addition of assets and estimation of asset addition for the next 6 months.

4.5.2 Also, the funding of Capital Expenditure for FY 2022-23 is envisaged through Grants, Equity and Debt considering the impact of conversion of Government Grants and Loans to Equity.

4.5.3 The detailed breakup of funding of capitalization during FY 2022-23 are mentioned below:

Table 41: Capitalization for FY 2022-23 and its Funding
(Rs. Crores)

S.N	Particulars	Approved in T.O. dtd 21.03.2022	AEGCL Estimation
1	Grant	190.73	134.98
2	Equity	2.78	7.42
3	Debt	6.49	18.68
4	Total Capitalisation	200.00	161.09

4.5.3.1 Further, the estimated scheme wise capitalization for FY 2022-23 is shown below:

Table 42: Scheme wise Capitalisation for FY 2022-23
(Rs. Crore)

S N	Name of the Scheme	Total Capitalisation	Grant	Equity	Loan
1	AIIB	2.89	2.08		0.81



S N	Name of the Scheme	Total Capitalisation	Grant	Equity	Loan
2	ADB	29.37	21.15		8.22
3	Annual Plan/SOPD	9.65			9.65
4	PSDF	16.70	16.70		
5	TDF	46.73	46.73		
6	Deposit Works	32.33	32.33		
7	AIIFA	16.00	16.00		
8	Internal Accrual Equity	7.42		7.42	
	Total	161.09	134.98	7.42	18.68

4.5.4 AEGCL requests the Hon'ble Commission to approve the proposed Capitalisation of Rs. 161.09 Cr. for FY 2022-23.

4.6 Gross Fixed Assets for FY 2022-23

4.6.1 The opening GFA and addition of GFA for FY 2022-23 as submitted by AEGCL is shown in the below table.

Table 43: Gross Fixed Assets for FY 2022-23

(Rs. Crores)

S. N	Particulars	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year
1	Land owned under full ownership	44.98	2.69	-	47.67
2	Land under lease	-	-	-	-
3	Building	61.67	5.80	-	67.47
4	Hydraulic	2.64	-	-	2.64
5	Other Civil Works	131.26	11.47	-	142.73
6	Plant & Machinery	1,314.68	93.89	-	1,408.57
7	Lines & Cable Network	1,159.03	40.32	-	1,199.35
8	Vehicles	4.95	-	-	4.95
9	Furniture & Fixtures	7.77	1.98	-	9.75
10	Office Equipment	5.22	4.94	-	10.16
	Total	2,732.20	161.09	-	2,893.29

4.7 Depreciation for FY 2022-23

4.7.1 Depreciation has been calculated considering the opening balance of assets in the beginning of the year and the capitalization as shown in the below table. AEGCL submits that the Depreciation is computed for assets excluding those funded through grant mechanism.

4.7.2 AEGCL hereby submits that, the proposal submitted to GoA for conversion of Govt. Loan & Grants to AEGCL into equity and waiver of interest accrued on such loan



as on 31.03.2021 has been approved by the Hon'ble Cabinet of GoA in its meeting held on 24.12.2021 and the same through vide letter no. PEL.58/2021/pt./105 dated 03.02.2022. After receiving approval from the Hon'ble Cabinet, Power (E) Department, GoA has issued sanction order to Accountant General (AG) vide letter no. FS/42-2021-22(1)-07 dated 31.12.2021 and letter no. FS/42-2021-22(1)-08 dated 31.12.2021. In view of the above, Government Grants of Rs. 1955.05 crores and Loans of Rs. 638.41 crores total amounting to Rs. 2593.46 crores are converted to equity. For FY 2022-23 the relevant letters with respect to conversion of Government Loans & Grants to equity are attached as **Annexure-VI**.

- 4.7.3 For FY 2022-23, after considering the Government Grants of Rs. 1955.05 crores and Loans of Rs. 638.41 crores converted to equity by GoA for AEGCL, the depreciation for FY 2022-23 is calculated in the table below:

Table 44: Depreciation for FY 2022-23

(Rs.Crs.)				
S.N.	Particulars	Depreciation Rate	Accumulated depreciation -beginning of the year	Additions during the year
1	Land owned under full ownership	0.00%	-	0.01
2	Land under lease	3.34%	0.06	
3	Building	3.34%	25.61	1.91
4	Hydraulic	5.28%	2.51	-
5	Other Civil Works	3.34%	23.01	4.00
6	Plant & Machinery	5.28%	623.71	63.49
7	Lines & Cable Network	5.28%	824.41	55.50
8	Vehicles	9.50%	4.45	-
9	Furniture & Fixtures	6.33%	4.39	0.47
10	Office Equipment	6.33%	3.75	0.66
	Total		1,511.90	126.04
(a)	Total Depreciation			1,637.93
(b)	Gross Fixed Assets excluding Land			2,845.62
(c)	Conversion of Grant to Equity			1955.05
(d)	Grant towards GFA			276.80
(e)	Gross Depreciation during the year			126.04
(f)	Less: Dep towards assets through Grant/Consumer contribution			12.26
(g)	Depreciation for the year (excl. assets funded through Grant)			113.78

- 4.7.4 AEGCL requests the Hon'ble Commission to approve the proposed depreciation amounting to Rs. 113.78 Cr. for FY 2022-23 excluding the depreciation of assets through grant during the same financial year.



4.8 Interest and Finance Charges for FY 2022-23

4.8.1 The Interest & Finance charges for FY 2022-23 have been calculated based on the net normative closing loan for FY 2021-22 as net normative opening loan for FY 2022-23. The addition of loan based on the capitalization and computed depreciation excluding grant and conversion of Government Loans of Rs. 638.41 crores to equity for AEGCL has been considered for calculation of interest and finance charge for FY 2022-23 is shown below:

Table 45: Normative Interest and Finance Charges for FY 2022-23
(Rs. Crores)

S.N	Particulars	Approved in T.O. dtd 21.03.2022	AEGCL Submission
1	Net Normative Opening Loan	255.95	197.37
2	Addition of normative loan during the year	6.49	18.68
3	Normative Repayment during the year	35.96	113.78
4	Net Normative Closing Loan	226.48	102.28
5	Interest Rate	10.08%	10.08%
6	Interest Expenses on Loan	24.31	15.10
7	Finance Charges	0.01	0.01
8	Total Interest and Finance Charges	24.32	15.11

4.8.2 AEGCL requests the Hon'ble Commission to approve the proposed Interest & Finance charges amounting to Rs. 15.11 Cr. for FY 2022-23.

4.9 Interest on Loan Computation FY 2022-23

4.9.1 The interest expenditure on account of long-term loans depends on the outstanding loan, repayments, and prevailing interest rates on the outstanding loans. Further, the projected capital expenditure and the funding of the same also have a major bearing on the long-term interest expenditure.

4.9.2 In accordance with Regulation 35.5 of AERC (MYT Regulations), 2021, the interest on the loans has been computed at 10.00% on the Govt. Loans, 10.50% on Govt. Loans taken from Financial Institutions and 7.10% on General Provident Fund. The Interest and Finance Charges for FY 2022-23 are tabulated below.

Table 46: Interest and Finance Charges for FY 2022-23
(Rs. Crs)

S.N.	Loan Details	FY 2022-23						
		Loan Tenure	Rate of Interest	Opening Balance	Amount Received	Principal Repayment	Interest Due	Closing Balance
A	Interest charges on State Govt. Loans, Bonds and Advances							
1	State Government Loans		10%	551.52	-523.73	0	0.90	27.79



S.N.	Loan Details	FY 2022-23						
		Loan Tenure	Rate of Interest	Opening Balance	Amount Received	Principal Repayment	Interest Due	Closing Balance
2	ADB Loan		10.50%	95.68	-95.68	0	0.00	0.00
3	Central Government Loans			-	-	0	0.00	0.00
4	General Provident Fund		7.10%	53.19		10.00	3.70	43.19
	Sub-total			551.52	-523.73	0	0.90	27.79
B	Interest on Long Term Loans / Credits from the FIs / banks / organisations approved by the State Govt.							
	Secured Loans			-	-	-	-	-
	Unsecured Loans			-	-	-	-	-
C	Other Interest & Finance Charges			-	-	-	-	-
	<i>Cost of raising Finance/Bank Charges</i>			-	-	-	0.01	-
	<i>Penal Interest Charges</i>			-	-	-	-	-
	Sub-total			551.52	-523.73	0	0.91	27.79
D	Total of Interest & Finance Charges (A+B+C)			-	-	-	-	-
E	Less: Interest & Finance Charges Capitalised			-	-	-	-	-
	Net Total of Interest Finance Charges (D-E)			551.52	-523.73	0	0.91	27.79

4.9.3 Accordingly, AEGCL requests the Hon'ble Commission to approve the normative Interest & Finance Charge of Rs. 15.11 Cr. shown in the above table.

4.10 Interest on Working Capital for FY 2022-23

4.10.1 The interest on working capital has been calculated based on the normative working formula in accordance with Regulation 37.2 of AERC, MYT Regulations, 2021.

4.10.2 Rate of interest on working capital has been considered equal to the normative interest rate of three hundred (300) basis points above the average State Bank of



India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff. Interest on working capital for FY 2022-23 has been computed as shown below.

Table 47: Interest on Working Capital for FY 2022-23

S.N.	Particulars	Units	Approved in T.O. dtd 21.03.2022	AEGCL Estimation
1	O&M expenses for 1 month	Rs. Crs.	18.59	19.92
2	Maintenance spares @ 15% of O&M	Rs. Crs.	33.47	35.86
3	Receivables for two months	Rs. Crs.	70.94	105.33
4	Total Working Capital	Rs. Crs.	123.00	161.10
5	Rate of Interest	%	10.00%	10.58%
6	Interest on Working Capital	Rs. Crs.	12.30	17.04

4.11 Computation of Interest

4.11.1 The interest rate of three hundred (300) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months arrived at 10.58%.

Table 48: MCLR rate for FY 2022-23 (last 6 months)

Effective Date	Interest Rate (%) (1Yr)
15.10.2022	7.95
15.09.2022	7.70
15.08.2022	7.70
15.07.2022	7.50
15.06.2022	7.40
15.05.2022	7.20
Average	7.58%

4.11.2 AEGCL requests the Hon'ble Commission to approve the proposed interest on working capital amounting to Rs. 17.04 Crore for FY 2022-23.

4.12 Return on Equity for FY 2022-23

4.12.1 In accordance with Regulation 34 of AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021, Return on Equity is calculated at 13.50% and additional 1% for achieving 80% approved capitalization for previous year and 2% for achieving 100% approved capitalization for previous year.



4.12.2 As informed in section 4.7.2, AEGCL has converted has converted Rs. 2593.46 crore to equity (i.e., Grant Rs. 1955.05 crore and Loans of Rs. 638.41 crore) as on 31.03.2022. Similarly, addition of equity during the year is considered at 30% of Rs. 2593.46 crore comes to Rs. 778.04 crore and internal accrual equity of Rs. 7.42 crore amounting to Rs. 785.46 crore.

Table 49: Conversion of Govt. Grans & Loans to Equity
(Rs. Crore)

Particulars	As on 31.03.2021	Conversion of Equity during FY 2022-23	Loan	Equity
			70%	30%
Grant	1955.05	1955.05	1368.54	586.52
Loan		638.41	446.89	191.52
ADB Loan	95.68	95.68	66.98	28.70
GoA Loan	542.73	542.73	379.91	162.82
Total	2593.46	2593.46	1815.42	778.04

4.12.3 The Return on Equity has been computed at 13.5% on closing balance of equity based upon the opening balance of equity and normative additions during the years. Return on Equity is computed as shown in the table below:

Table 50: Return on Equity for FY 2022-23
(Rs. Crore)

S.N	Particulars	Units	Approved in T.O. dtd 21.03.2022	AEGCL Estimation
1	Equity (Opening Balance)	Rs. Crs.	99.93	99.93
2	Net additions during the year	Rs. Crs.	2.78	785.46
3	Less: Reduction during the year	Rs. Crs.	0.00	-
4	Equity (Closing Balance)	Rs. Crs.	102.71	885.39
5	Average Equity	Rs. Crs.	101.32	492.66
6	Rate of Return on Equity	%	13.50%	13.50%
7	Return on Equity	Rs. Crs.	13.68	66.51

4.12.4 AEGCL requests the Hon'ble Commission to approve the return on equity for the FY 2022-23 as proposed by AEGCL.

4.13 Other Debit for FY 2022-23

4.13.1 Other Debit for FY 2022-23 has been tabulated below.

Table 51: Other Debit for FY 2022-23
(Rs. Crs)



S.N	Particulars	Approved in T.O. dtd 21.03.22	FY 2022-23 (H1)	FY 2022-23 (H2)	AEGCL Estimation
a	Loss to fixed assets on account of flood, cyclone, fire, etc.	-	2.71	2.29	5.00
	Total	-	2.71	2.29	5.00

4.13.2 AEGCL requests the Hon'ble Commission to approve the proposed Other Debit of Rs. 5.00 crores for FY 2022-23.

4.14 Bulk Supply Tariff (BST) – Terminal Benefits for FY 2022-23

4.14.1 AEGCL submits that the BST is calculated based on the BST rate of Rs. 0.20 per kWh as approved by the Hon'ble Commission vide order dated 21.03.2022 and the estimated energy sent out to APDCL for FY 2022-23.

Table 52: Special Charges – Bulk Supply Tariff (BST) for FY 2022-23

(Rs.Crs.)			
S.N.	Particulars	Approved in T.O. dtd 21.03.2022	AEGCL Estimation
1	Energy Sent out to APDCL (MUs)	10719.08	11342.25
2	BST Charge (Rs./kWh)	0.20	0.20
3	Total (3=1*2/10)	214.38	226.85

4.14.2 AEGCL requests the Hon'ble Commission to approve the proposed special charges on BST amounting to Rs. 226.85 Cr. for FY 2022-23.

4.15 Non-Tariff Income for FY 2022-23

4.15.1 The amount of Non-Tariff Income mostly comprises of income from investments and other misc. receipts, etc., The estimation of NTI for FY 2022-23 is tabulated in the table below.

Table 53: Non-Tariff Income for FY 2022-23

(Rs. Crore.)					
S.N.	Particulars	Approved in T.O. dtd 21.03.2022	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
A	Income from Investment, Fixed & Call Deposits	54.01			
	Income from Investments		-	-	-
	Interest on fixed deposits		17.67	17.09	34.71
	Income on other investments (Dividend)			-	-
	Interest from Banks		0.75	0.30	1.05
	Interest on GPF		-1.85	-1.85	-3.70
	Sub Total		16.57	15.49	32.06



(Rs. Crore.)					
S.N.	Particulars	Approved in T.O. dtd 21.03.2022	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
	Other Non-Tariff Income				
	Rental from contractors/others		0.30		0.30
	Inspection Bunglow/Guest house charges		0.03		0.03
B	Electricity charges from employees		0.00		0.00
	Sale of tender forms		0.04		0.04
	Penalties recovered from suppliers/contractors		-0.30		-0.30
	Other Miscellaneous Receipt		0.40		0.40
	Income from Supervision/Service charges on deposit works		2.77	4.00	6.77
C	Income from Testing Bill raised by MRT & T&C Divisions				
	Application fees from STOA consumers				
	Received against invocation of Bank Guarantee of M/s Easun Reyrolle Limited				-
	TDS deducted and deposited in the name of AEGCL for FY 2020-21 other than Sec.194A as per 26 AS				
	Hire Charges from Contractors/Suppliers/ Others		0.02	0.10	0.12
	Sale of scrap		14.46	-	14.46
	Rentals from staff quarters		0.06	0.07	0.13
	Sub Total		17.78	4.17	21.95
	Total	63.73	34.35	19.66	54.01

4.15.2 **Income from other investment (Dividend)** – As per clause 68.1 of MYT Regulation 2021, “Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the regulated business of the Transmission Licensee shall not be included in Non-Tariff Income”. Therefore, the interest/dividend earned from North East Transmission Company Limited (NETCL) by AEGCL has not been considered under NTI.

4.15.3 As mentioned in the true up section, interest on GPF and income from open access consumer has been deducted from Non-Tariff Income. Hence, AEGCL requests the



Hon'ble Commission to approve the Non-Tariff Income amounting to Rs. 54.01 crores for FY 2022-23.

4.16 Open Access Consumer's wheeling charges

4.16.1 AEGCL has considered the wheeling charges from Open Access Consumers amounting to Rs. 3.16 Crores in the H1 of FY 2022-23 as additional revenue of AEGCL for computation of Revenue Gap/(Surplus) and open access charges of Rs. 8.84 crores have been considered for H2. AEGCL requests the Hon'ble Commission to approve Rs. 12.00 crore for FY 2022-23.

4.17 Contribution to Contingency Reserves for FY 2022-23

4.17.1 In accordance with Regulation 67.9 of AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021 stipulate the computation of contingency reserves is as follows:

" 67.9.1 The Transmission Licensee may make an appropriation to the Contingency Reserve of a sum not exceeding 0.1 per cent of the gross fixed assets approved by the Commission at the beginning of the year, for each year, which shall be allowed in the calculation of aggregate revenue requirement:

Provided that where the amount of such Contingency Reserve exceeds one (1) per cent of the gross fixed assets, no such appropriation shall be allowed, which would have the effect of increasing the reserve beyond the said maximum:

Provided further that the amount so appropriated may be invested in securities and fixed deposit. Interest earned shall be added to the Contingency Reserve.

Provided also that the Transmission Licensee shall maintain separate account for such reserve.

67.9.2 The Contingency Reserve shall not be drawn upon during the term of the licence except to meet such charges as may be approved by the Commission as being the expenses arising out of accidents, natural calamities or circumstances beyond the control of the Licensee;

Provided that such drawal from Contingency Reserve shall be computed after making due adjustments for any other compensation that may have been received by the Licensee as part of an insurance cover and Government Grant, if any."

4.17.2 The Hon'ble Commission vide its Tariff Order dated 21.03.2022 have approved Rs. 2.71 crores. The fund created under contingency reserves for FY 2022-23 shall be utilized for repairing of damaged and rusted tower legs, stubs, emergency replacement of damaged conductor, temporary protection of tower, replacement of insulator due to fault, re-tensioning of conductors, construction of new towers



in place of river eroded towers etc., in several transmission lines due to recent floods in the State. However, the contingency reserve based on estimated GFA for FY 2022-23 arrived at Rs. 2.74 crore. Also, AEGCL has initiated few works and the details of the works to be carried out are attached at **Annexure-VII**.

4.17.3 In view of the above, AEGCL request the Hon'ble Commission to permit AEGCL to utilize the funds as per the requirement submitted towards contingencies for FY 2022-23 as mentioned in **Annexure VII**.

Table 54: Contribution towards Contingency Reserves for FY 2022-23
(Rs. Crore)

S. No.	Particulars	As per T.O dated 21.03.2022	AEGCL Submission
1	Opening GFA for Previous year	2708.47	2737.67
2	% Factor	0.1%	0.1%
3	Contingency Reserves (1*2)	2.71	2.74

4.17.4 AEGCL hereby requests the Hon'ble Commission to approve the same as shown in the above table for FY 2022-23.

4.18 Annual Performance Review for FY 2022-23

4.18.1 Based on the Annual Performance Review, AEGCL prays before the Hon'ble Commission to allow ARR as proposed below.

Table 55: Annual Performance Review for FY 2022-23

(Rs. Crs.)

S.N.	Particulars	Approved in T.O. dtd 21.03.2022	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
1	O&M Expenses	223.11	119.53	119.53	239.05
a	Employee Cost	184.39	99.59	99.59	199.18
b	R&M Expenses	28.89	14.56	14.56	29.12
c	A&G Expenses	9.83	5.38	5.38	10.75
2	Depreciation	35.96	56.89	56.89	113.78
3	Interest & Finance Charges	24.32	7.56	7.56	15.11
4	Interest on Working Capital	12.30	8.52	8.52	17.04
5	BST for Pension Trust Fund	214.38	113.42	113.42	226.85
6	Return on Equity	13.68	33.25	33.25	66.51
7	Other debits (Excl. related to Int, Dep and O&M)	-	2.71	2.29	5.00
8	Contribution towards Contingency Reserve	2.71	-	-	2.74
9	Less: Non-Tariff Income/ Other Income	54.01	34.35	19.66	54.01



(Rs. Crs.)					
S.N.	Particulars	Approved in T.O. dtd 21.03.2022	FY 2022-23 H1	FY 2022-23 H2	AEGCL Estimation
10	Aggregate Revenue Requirement	472.45	308.90	323.17	632.07
11	Incentive on Transmission Availability	-	-	-	-
12	Aggregate Revenue Requirement after incentive	472.45	308.90	323.17	632.07
13	Less: Revenue from STOA/MTOA Charges	12.00	3.16	8.84	12.00
14	Net Aggregate Revenue Requirement	460.45	305.74	314.33	620.07
15	Revenue with Approved Tariff for FY 2022-23	460.45	-	-	460.45
16	Revenue Gap /(Surplus) for FY 2022-23	-	-	-	159.62

4.18.2 In view of the above, AEGCL requests the Hon'ble Commission to approve the above Net ARR amounting to Rs. 620.07 Crore for FY 2022-23.



5 AGGREGATE REVENUE REQUIREMENT FOR FY 2023-24

5.1 Preamble

- 5.1.1 This section deals with the determination of Aggregate Revenue Requirement of AEGCL for FY 2023-24 based on the projections made for the current year and the previous year.
- 5.1.2 This Chapter deals with the determination of ARR and transmission tariff for FY 2023-24 in accordance with the provisions of MYT Regulations, 2021.

5.2 Aggregate Revenue Requirement for FY 2023-24

- 5.2.1 Aggregate Revenue Requirement shall comprise of following components:
- Operation and Maintenance Expenses
 - Depreciation
 - Interest and Finance Charges
 - Interest on Working Capital
 - Return on Equity
 - Bulk Supply Tariff (BST)
 - Contribution towards Contingency Reserves
- Less
- Non-Tariff Income
 - Income from Other Business

5.3 Principles of ARR for FY 2023-24

- 5.3.1 It is essential that all the costs are allowed so as to ensure the financial viability of AEGCL. It requires generating adequate amount of profit from its operations so that it can maintain the system properly and simultaneously it can take up R&M projects to upgrade its transmission system. Also needs to incur capital expenditure to cater to the future needs of the system.
- 5.3.2 In the circumstances and conditions mentioned above, the Aggregate Revenue Requirement as proposed by AEGCL in this petition may be allowed.

5.4 Transmission Losses for FY 2023-24

- 5.4.1 As stated in regulation 72 of AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021,

“ The energy losses in the transmission system of the Transmission Licensee, as determined by the State Load Despatch Centre and approved by the Commission,



shall be borne by the Transmission System Users pro-rata to their usage of the intra-State transmission system:

Provided that the Commission may stipulate a trajectory for reduction of transmission losses in accordance with Regulation 7, as a part of Multi Year Tariff framework applicable to the Transmission Licensee.

AEGCL submits that many new 400kV and 220kV substations are coming up under AIIB scheme which are expected to be charged only after FY 2023-24. Secondly, at APDCL end also majority of these voltage improvements at downstream levels are expected to be implemented by the end of FY 2023-24.

However, AEGCL will make all efforts towards improving the loss reduction process. In view of the above, the projected transmission losses for FY 2023-24 is as shown below:

Table 56: Transmission Losses for the FY 2023-24

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Energy Injected (MU)	3.25%	12041.60
2	Energy Sent Out to APDCL (MU)		11455.67
3	Energy Sent Out to OA Consumers (MU)		188.00
4	Total Energy Sent Out		11,643.67
4	Transmission Loss (MU)		397.93
5	Transmission Loss (%)	3.25%	3.30%

5.5 Transmission Availability for FY 2023-24

5.5.1 The projected Transmission availability factor is considered at 99.50% for the FY 2023-24

Table 57: Transmission Availability Factor for the FY 2023-24

S.No	Particulars	AEGCL Submission
1	Transmission Availability Factor	99.50%

5.6 Fixed Cost for FY 2023-24

5.6.1 Based on the Capital Cost and the consequent Capitalized Expenditure, Equity Component and Normative Debt, the fixed cost of AEGCL for FY 2023-24 have been determined in accordance with the MYT Regulations, 2021 outlined thereof. The fixed cost for AEGCL has been determined under the following major heads:

- Operation and Maintenance Expenses
- Depreciation



- Interest and Finance Charges
- Interest on Working Capital
- Return on Equity
- Bulk Supply Tariff (BST)
- Contribution towards Contingency Reserves

Less

- Non-Tariff Income
- Income from Other Business

5.7 Operation and Maintenance Expenses for 2023-24

5.7.1 The Operation & Maintenance (O&M) expenses consists of Repair and Maintenance expenses, Employee expenses and Administration & General expenses. AEGCL highlights that the O&M charges of SLDC has been segregated and is filed separately under SLDC Tariff Petition for FY 2023-24. Regulation 67.5 & 67.8 of AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021 provides for computation of O&M norms. The relevant provisions are reproduced below:

"67.6 Existing Transmission Licensee

...

67.6.3 *The O&M expenses for the nth year and also for the year immediately preceding the Control Period shall be approved based on the formula given below:-*

$$O\&M_n = R\&M_n + EMP_n + A\&G_n$$

Where –

O&M_n – Operation and Maintenance expense for the nth year;

EMP_n – Employee Costs for the nth year;

R&M_n – Repair and Maintenance Costs for the nth year;

A&G_n – Administrative and General Costs for the nth year;

67.6.4 *The above components shall be computed in the manner specified below:*

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (\text{CPI inflation})$$

$$R\&M_n = K \times (GFA_{n-1}) \times (\text{WPI inflation}) \text{ and}$$

$$A\&G_n = (A\&G_{n-1}) \times (\text{WPI inflation}) + \text{Provision}$$

Where –

- *EMP_{n-1} – Employee Costs for the (n-1)th year;*
- *A&G_{n-1} – Administrative and General Costs for the (n-1)th year;*
- *Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.*



- 'K' is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-a-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;
- CPI inflation – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;
- WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;
- GFA_{n-1} --- Gross Fixed Asset of the transmission licensee for the n-1th year;
- G_n is a growth factor for the nth year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, and any other factor that the Commission feels appropriate.

67.7 O&M Norms for New Transmission Licensee

For the New transmission licensees, the year-wise O&M norms shall be determined on case to case basis:

Provided that the same shall not be applicable to those new projects which are awarded on a competitive bidding basis.

Explanation: The term "New Transmission Licensee" shall mean the transmission licensee(s) for which Transmission Licence is granted by the Commission prior to or after the date of effectiveness of these Regulations, and whose transmission project assets are commissioned after March 31, 2022.

67.8 O&M Sharing between two Transmission Licensees

67.8.1 For such Transmission Licensees whose bays are installed in the premises of and maintained by another Transmission Licensee, the O&M expense for such assets shall be allowed in accordance with the norms applicable for the Transmission Licensee who performs the O&M of such assets:

Provided that the Transmission Licensees shall mutually agree on sharing of such allowed O&M expenses:

Provided further that Transmission Licensees shall project addition of such assets over the Control Period separately in their Capital Investment Plan to be submitted in accordance with Regulation 6."

5.7.2 WPI Inflation computation for FY 2023-24

5.7.2.1 The average increase in the Wholesale Price Index (WPI) for the immediately preceding three years gives the WPI Inflation for the Base year. Since the WPI data



is currently available till FY 2021-22, the Inflation factor could be computed till FY 2022-23. Hence the resulting WPI Inflation is considered for computational purpose of FY 2023-24 as follows:

Table 58 : WPI Inflation for FY 2023-24

Fiscal	WPI Index	YOY Change %
FY 2021-22	139.41	13.00%
FY 2020-21	123.37	1.29%
FY 2019-20	121.80	1.67%
Average WPI Inflation (Last 3 Years)		5.32%

5.7.3 CPI Inflation computation for FY 2023-24

5.7.3.1 The average increase in the Consumer Price Index (CPI) for the immediately preceding three years gives the CPI Inflation for base year. Since the CPI data is currently available till FY 2021-22, the Inflation factor could be computed till FY 2022-23. Hence, the resulting CPI Inflation is considered for computational purpose of FY 2023-24 as follows:

Table 59: CPI Inflation for FY 2023-24

Fiscal	CPI Index	YOY Change %
FY 2021-22	356.06	5.13%
FY 2020-21	338.69	5.02%
FY 2019-20	322.50	7.53%
Average CPI Inflation (Last 3 Years)		5.89%

5.7.4 Normative Calculation of R&M expense for FY 2023-24

5.7.4.1 Repair & maintenance expenses are directly related to number of the substations and lines, age of the assets, its wear and tear during the period. R&M expenses are generally incurred in order to ensure the maintenance of the transmission lines/systems.

5.7.4.2 Regulation 67.6.4 of AERC (MYT Regulations), 2021 provides the manner in which components of O&M expenses shall be computed. The methodology for R&M expense is as follows:

$$R\&M_n = K \times (GFA\ n-1) \times (WPI\ inflation)$$



Table 60 : Repair and Maintenance Expenses for 2023-24
(Rs. Crore)

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Opening GFA for previous year	2,708.47	2,732.20
2	Closing GFA for previous year	2,908.47	2,893.29
3	Average GFA for previous year	2,808.47	2,812.74
4	K Factor	0.75%	0.75%
5	WPI Inflation	4.13%	5.32%
6	Normative R&M Expense	22.04	22.22
7	Provision for Colony Maintenance of AEGCL	5.93	5.93
8	Provision for Emergency Spares Material	-	4.69
9	Provision for Cyber Security	-	1.88
10	Total R&M Expenses	27.97	34.72

5.7.4.3 The closing GFA for FY 2022-23 has been considered as opening GFA for FY 2023-24. The “K” factor of AEGCL has been considered as 0.75% as approved by the Hon’ble Commission in the Tariff Order dated 21.03.2022.

5.7.5 Provision for Emergency Spares Material

5.7.5.1 AEGCL is presently having 5804 CKM of transmission line in its network at various voltage levels passing through river crossings, hilly terrain and forest areas etc. In order to provide un-interrupted power supply to the consumer, network strengthening, and immediate restoration is necessary.

5.7.5.2 Presently, AEGCL is in acute shortage of electrical conductors that are used in the transmission line and substations. Moreover, the occurrence of faults at downstream side is very high and operation of 33 KV Circuit breaker is more in comparison to higher voltage level due to fault or any operation due to shut down, maintenance purpose in the grid substation. To meet the above emergency requirements, that can be arising out of snapping of any transmission line, snapping of conductor in the switchyard area and interruption of any 33 KV feeder from the AEGCL grid substation due to malfunction/damage of a 33 KV Circuit Breaker the tentative estimate amounting to Rs. 4.69 crore is prepared and also request the Hon’ble Commission to allow AEGCL to meet these expenses over and above the normative R&M expenses. The details of the Emergency Spares Requirement is provided in the below table:

**Table 61 : Emergency Spares Material requirement for FY 2023-24**

S.N	Item	Unit	Rate (Rs)	Quantity	Total Rate (Rs)
1	ASCR Moose Conductor	KM	4,31,548	20	86,30,960
2	ASCR Zebra Conductor	KM	3,80,000	50	1,90,00,000
3	ACSR Panther Conductor	KM	1,42,375	50	71,18,750
4	33 KV Circuit Breaker	No's	5,00,000	10	50,00,000
Total					3,97,49,710
Add GST 18%					71,54,948
Grand Total					4,69,04,658

5.7.6 Provision for Cyber Security

5.7.6.1 Cyber Security refers to protecting cyber space including critical information infrastructure from attack, damage, misuse and economic espionage. Cyber security is a broad-spectrum phrase and relates to preventing any form of unauthorized and malafide access to a personal computer, a laptop, a smartphone or a major network like the national banking system or the railway network or a national information technology asset that also has military implications.

5.7.6.2 Cyber Security of Critical infrastructure in power sector organizations has become a matter of fundamental priority with respect to national defense strategy. Cyber Security is very important in increasing Cyber Security Awareness among the public and private sectors to enhance the overall cyber resilience of the nation. The Govt. Of India have also created NCIIPC (National Critical Information Infrastructure Protection Centre) under Sec 70A of the information Technology Act, 2000(amended 2008) as the Nodal Agency in respect of Critical information Infrastructure Protection. The NCIIPC has identified 6(six) sectors as Critical Information Infrastructure given below:

1. Transport
2. Power& Energy
3. Telecom
4. Government
5. Banking, Financial Services and Insurance
6. Strategic and Public Enterprises.

5.7.6.3 AEGCL comes under Power & Energy sector and hence considered as Critical Information Infrastructure by NCIIPC. A Central Coordinating agency, Information Sharing and Analysis Centre (ISAC- Power) was established by MoP, Govt. of India under Central Electricity Authority (CEA) to share and analyze various cyber-Security incidents in the power sector. ISAC-Power is the common platform for



the six Sectoral CERTs under MoP. It is very necessary for any organization to be very vigilant and always remain up-to date in matter of Cyber Security as now-a-days Cyber Attack in Many PSU's and Government organizations has been a very common phenomenon. As per directives of MoP, AEGCL have already designated a CISO to oversee the Cyber Security at the Organization.

5.7.6.4 Therefore, to cope with the existing Cyber Threats and remain updated various steps need to be undertaken which require financial involvement. Also, Cyber Security related issues cannot be taken lightly, and any data breach or attack may have disastrous impact for the organization and also be a breach in National Security. Further, it has been clearly mentioned in CEA (Cyber Security in Power Sector) Guidelines, 2021 under Article 1(j) that the responsible Entity shall allocate sufficient Annual budget for enhancing Cyber Security posture, enhanced year over year. In this regard, AEGCL requests the Hon'ble Commission to approve the amount towards Cyber Security as requested over and above the R&M expenses for FY 2023-24. The details of the expenses to incur towards cyber security are provided in **Annexure-VIII**.

5.7.6.5 Therefore, in view of the above, AEGCL requests the Hon'ble Commission to approve an amount of Rs. 34.72 crores for Repair and Maintenance expenses including the provision for colony maintenance of AEGCL, Emergency Spares Material and Cyber Security for FY 2023-24 without any disallowance.

5.7.7 Normative Calculation of Employee expense for FY 2023-24

5.7.7.1 Regulation 67.6.4 of AERC (MYT Regulations), 2021 provides the manner in which components of O&M expenses shall be computed. The methodology for Employee expense is as follows:

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (CPI \text{ inflation})$$

Table 62 : Employee Expenses for FY 2023-24

(Rs. Cr.)

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Base Employee Cost (n-1)	184.39	199.18
2	CPI Inflation	5.53%	5.89%
3	Gn (Growth Factor for nth Year)	1.00%	1.00%
4	Normative Employee Cost	196.54	213.02



5.7.7.2 The base employee cost for FY 2023-24 has been computed considering the normative employee cost of FY 2022-23.

5.7.7.3 The detail of the manpower of AEGCL excluding SLDC for FY 2023-24 is provided in the table below:

Table 63: Manpower details of FY 2023-24

S.N.	Particulars	Manpower	Projection
(A)	Manpower as on 1st April (Opening Balance)	2221	2221
(B)	Retirement during the Financial Year	54	54
(C)	Recruitment during the Financial Year	0	0
(D)	Transfer within sister company and within AEGCL and SLDC during the fiscal year	0	(+)5
(E)	Manpower as on 31st March (Closing balance)	2167	2172

5.7.7.4 AEGCL humbly requests the Hon'ble Commission to approve the proposed employee expenses for FY 2023-24 without any disallowance.

5.7.8 Normative Calculation of Administrative and General Expenses for FY 2023-24

5.7.8.1 Regulation 67.6.4 of AERC (MYT Regulations), 2021 provides the manner in which components of O&M expenses shall be computed. The methodology for Administrative and General Expenses is as follows:

$$A\&Gn = (A\&Gn-1) \times (WPI \text{ inflation}) + Provision$$

Table 64 : Administrative & General Expenses for FY 2023-24

(Rs. Crore)

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	A&G Expense for Previous year	9.83	10.75
2	WPI Inflation	4.13%	5.32%
3	Normative A&G Expense for the year	10.23	11.33

5.7.8.2 Therefore, AEGCL requests the Hon'ble Commission to approve the A&G expenses for the FY 2023-24 amounting to Rs. 11.33 crore without any disallowance.

5.7.9 Training and Capacity Building of AEGCL Employees for FY 2023-24

5.7.9.1 AEGCL states that the power sector is undergoing a paradigm shift and new technologies with updates are being adopted on a continuous basis to improve operational efficiency and security. These technologies are posing different



challenges for power sector, which need to overcome well within time so as to have effective operational benefits.

- 5.7.9.2 AEGCL submits that on account of technological changes, training of manpower is required in order to achieve operational effectiveness along with the accident-free workplace. It is pertinent to mention that for awareness of new technology and adapting better working conditions to reduce accidents and mishaps, AEGCL proposes to conduct technology and safety training workshops at regular intervals. The details of the training planned for FY 2023-24 is provided in the below table.

Table 65 : Training and Capacity Building for FY 2023-24
(Rs. Crore)

S.N.	Name of Program	Estimated cost (Rs)
1	Managerial Leadership and Conflict Resolution	380000
2	Cybersecurity	290000
3	Asset Management in Power Sector	350000
4	Financial Management of Projects	330000
5	Energy Audit & loss reduction in transmission system	360000
6	Power Safety, Disaster Risk Reduction & Management	440000
7	Stress Management through mindfulness, yoga, meditation	350000
8	Any other area where training need arises in the FY 2023-24	500000
	Total	3000000

- 5.7.9.3 The above-mentioned proposed expenses towards training and capacity building of AEGCL employees is also included in the A&G expenses projected for FY 2023-24. This is inevitably required for conducting frequent technical, managerial and financial training, hence, enabling AEGCL to smoothly function in a safe and efficient manner.

- 5.7.9.4 The Summary of total projected O&M Expense for the FY 2023-24 is as follows

Table 66: Operation & Maintenance Expenses for FY 2023-24
(Rs. Crores)

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Employee Cost	196.54	213.02
2	Repair & Maintenance	27.97	34.72
3	Administrative & General Expenses	10.23	11.33
	Total	234.74	259.07

- 5.7.10 AEGCL requests the Hon'ble Commission to approve the normative O&M Expenses of Rs. 259.07 crore as shown in the above table.

**5.8 Capital Expenditure and Capitalization for FY 2023-24**

- 5.8.1 As per Regulation 6 of AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021, AEGCL shall submit a Capital Investment Plan for FY 2023-24.
- 5.8.2 The scheme-wise capital expenditure along with funding pattern of AEGCL FY 2023-24 and the details of capital expenditure and expenses capitalized are shown in **Annexure IV** titled "Revised Capital Investment Plan".
- 5.8.3 The regulatory format of Capital Expenditure and Capitalisation from FY 2021-22 to FY 2023-24 is attached as **Annexure IX**

5.9 Funding of Capitalization for FY 2023-24

- 5.9.1 The funding of the above-mentioned capitalization is envisaged through various sources categorized under Equity, Grant, and Loan. The expenditure projected for FY 2023-24 is proposed to be funded through equity, loan and grant as per funding patterns of the schemes. The detailed breakup of funding of capitalization during FY 2023-24 is proposed for the approval of Hon'ble Commission as mentioned in the below table.

Table 67: Funding of Capitalisation for FY 2023-24**(Rs. Crore)**

S.No	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Grant	219.54	923.04
2	Equity	2.29	0.00
3	Debt	28.17	1.39
4	Total Capitalisation	250.00	924.43

5.10 Gross Fixed Assets for FY 2023-24

- 5.10.1 The opening GFA and addition of GFA for FY 2023-24 as submitted by AEGCL is shown in the below table

Table 68: Gross Fixed Assets for FY 2023-24**(Rs Crores)**

SN	Particulars	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year
1	Land owned under full ownership	47.67	-		47.67
2	Land under lease	-	-		-
3	Building	67.47	-		67.47
4	Hydraulic	2.64	-		2.64
5	Other Civil Works	142.73	24.44		167.17



SN	Particulars	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year
6	Plant & Machinery	1,408.57	623.74		2,032.31
7	Lines & Cable Network	1,199.35	261.37		1,460.72
8	Vehicles	4.95	-		4.95
9	Furniture & Fixtures	9.75	5.32		15.07
10	Office Equipment	10.16	9.56		19.72
11	Any other assets	-	-		-
	Total	2,893.29	924.43	-	3,817.72

5.10.2 In view of the above, AEGCL requests the Hon'ble Commission to approve the capitalization as shown in the above table for FY 2023-24.

5.11 Depreciation for FY 2023-24

5.11.1.1 Depreciation has been computed as per AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021 for FY 2023-24. Depreciation has been calculated taking into consideration the opening balance of assets in the beginning of the year and the provisional capitalization. The addition of assets for FY 2023-24 have been projected considering capital investment plan for FY 2023-24. The estimated closing Gross Block of Fixed Assets for the FY 2022-23 has been considered as the opening balance of assets in the beginning of the FY 2023-24.

5.11.2 AEGCL hereby submits that, the proposal submitted to GoA for conversion of Govt. Loan & Grants to AEGCL into equity and waiver of interest accrued on such loan as on 31.03.2021 has been approved by the Hon'ble Cabinet of GoA in its meeting held on 24.12.2021 and the same through vide letter no. PEL.58/2021/pt./105 dated 03.02.2022. After receiving approval from the Hon'ble Cabinet, Power (E) Department, GoA has issued sanction order to Accountant General (AG) vide letter no. FS/42-2021-22(1)-07 dated 31.12.2021 and letter no. FS/42-2021-22(1)-08 dated 31.12.2021. In view of the above, Government Grants of Rs. 1955.05 crores and Loans of Rs. 638.41 crores total amounting to Rs. 2593.46 crores are converted to equity. For FY 2022-23 the relevant letters with respect to conversion of Government Loans & Grants to equity are attached as **Annexure-VI**.

5.11.2.1 In accordance with Regulation 33 [(33.2) & (33.4)] of AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021, depreciation is calculated as per SLM considering depreciation on opening Fixed Asset to the extent of 90% of the Asset Value. Depreciation on the Assets added during the FYs has been calculated for 180 days assuming the date of commission of the Assets as the middle of the Financial Year. Depreciation has been provided at the rates



specified in the AERC's Depreciation Rate Schedule. The depreciation of assets created through Grant has been reduced before arriving at net depreciation.

5.11.3 In addition, AEGCL highlights that the GFA of SLDC has been segregated from AEGCL's GFA and is filed separately under SLDC's Tariff Petition for FY 2023-24. For FY 2023-24, after considering the Government Grants of Rs. 1955.05 crores converted to equity by GoA for AEGCL, the depreciation for FY 2023-24 is calculated in the table below:

Table 69: Depreciation for FY 2023-24

(Rs. Crs.)				
S.N.	Particulars	Depreciation Rate	Accumulated depreciation - beginning of the year	Additions during the year
1	Land owned under full ownership	0.00%	0.01	
2	Land under lease	3.34%	0.06	-
3	Building	3.34%	27.52	2.25
4	Hydraulic	5.28%	2.51	-
5	Other Civil Works	3.34%	27.01	5.17
6	Plant & Machinery	5.28%	687.20	90.84
7	Lines & Cable Network	5.28%	879.91	70.23
8	Vehicles	9.50%	4.45	0.00
9	Furniture & Fixtures	6.33%	4.86	0.77
10	Office Equipment	6.33%	4.41	0.95
11	Any other assets	5.28%	-	-
	Total		1,637.93	170.23
(a)	Total Depreciation			1,808.16
(b)	Gross Fixed Assets excluding Land			3,770.05
(c)	Grant towards GFA			1,019.52
(d)	Conversion of Grant to Equity			1955.05
(e)	Gross Depreciation during the year			170.23
(f)	Less: Dep towards assets through Grant/Consumer contribution			46.03
(g)	Depreciation for the year (excluding assets funded through Grant)			124.19

5.11.3.1 AEGCL requests the Hon'ble Commission to approve the depreciation as requested in the table above for FY 2023-24.

5.12 Normative Interest and Finance Charges for FY 2023-24

5.12.1 The Interest & Finance charges for FY 2023-24 have been calculated based on the net normative closing loan for FY 2022-23 as net normative opening loan for FY 2023-24. The addition of loan based on the capitalization and computed depreciation excluding grant and conversion of Government Loans of Rs. 638.41 crores to equity for AEGCL has been considered for calculation of interest and finance charge for FY 2023-24 is shown below:

**Table 70 : Normative Interest & Finance Charges for FY 2023-24****(Rs.Crs.)**

S.N	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Net Normative Opening Loan	226.51	102.28
2	Addition of normative loan during the year	28.17	1.39
3	Normative Repayment during the year	37.46	124.19
4	Net Normative Closing Loan	217.22	-
5	Interest Rate	10.08%	10.08%
6	Interest Expenses on Loan	22.35	5.15
7	Finance Charges	0.01	0.01
8	Total Interest and Finance Charges	22.36	5.16

5.12.2 AEGCL requests the Hon'ble Commission to approve the normative Interest and Finance Charges of Rs. 5.16 crore as shown in the above table.

5.13 Interest on Working Capital for FY 2023-24

The interest on working capital has been calculated based on the normative working formula in accordance with Regulation 37.2 of AERC, MYT Regulations, 2021. The rate of interest provided on the working capital is the normative interest rate of three hundred (300) basis points above the average State Bank of India MCLR (one-year tenor) prevalent during last available six months for the determination of tariff. In line with norms, interest on working capital is calculated as shown below:

Table 71 : Interest on working capital for FY 2023-24**(Rs. Crore)**

S.N.	Particulars	Units	As per T.O. dated 21.03.2022	AEGCL Submission
1	O&M expenses for 1 month	Rs. Crs.	19.56	21.59
2	Maintenance spares @ 15% of O&M	Rs. Crs.	35.21	38.86
3	Receivables for two months	Rs. Crs.	83.85	117.46
4	Total Working Capital	Rs. Crs.	138.62	177.91
5	Rate of Interest	%	10.00%	10.58%
6	Interest on Working Capital	Rs. Crs.	13.86	18.81

5.14 Computation of Interest

5.14.1 The interest rate of three hundred (300) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months arrived at 10.58%.

**Table 72: MCLR rate for FY 2022-23 (last 6 months)**

Effective Date	Interest Rate (%) (1Yr)
15.10.2022	7.95
15.09.2022	7.70
15.08.2022	7.70
15.07.2022	7.50
15.06.2022	7.40
15.05.2022	7.20
Average	7.58%

5.14.2 AEGCL requests the Hon'ble Commission to approve the Interest on working capital of Rs. 18.81 crore as shown in the above table.

5.15 Return on Equity for FY 2023-24

5.15.1 As specified in Regulation 34 of AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021, Base Return on Equity is calculated at 13.50% and additional 1% for achieving 80% approved capitalization for previous year and 2% for achieving 100% approved capitalization for previous year

5.15.2 After considering equity addition during FY 2022-23, the net closing equity balance of FY 2022-23 is considered as opening balance for FY 2023-24.

Table 73: Return on Equity for FY 2023-24

(Rs. Crore)			
S.N.	Particulars	As per T.O. dated 21.03.2022	AEGCL Submission
1	Equity (Opening Balance)	102.71	885.39
2	Net additions during the year	2.29	-
3	Equity (Closing Balance)	105.00	885.39
4	Average Equity	103.85	885.39
5	Rate of Return on Equity	13.50%	13.50%
6	Return on Equity	14.02	119.53

5.15.3 In view of the above, AEGCL requests the Hon'ble Commission to approve the Return on Equity of Rs. 119.53 crore for FY 2023-24.

5.16 Taxes for FY 2023-24

5.16.1 As per AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021, Income Tax shall be reimbursed to the transmission licenses as



per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year.

5.17 Bulk Supply Tariff (BST) – Terminal Benefits for FY 2023-24

5.17.1 Government of Assam (GoA) vide its Notification dated 4th February 2005 had entrusted the existing Pension Trust to be common trust for all the new companies till further orders of ASEB/GoA. Terminal benefits are defined as follows in Clause 1.5 of the aforementioned notification:

"ASEB's employee related liabilities, including payment of pension, gratuity, leave encashment and general provident fund and any other retirement benefits and other applicable benefits including the right to have the appropriate revisions in the above benefits consistent with the practice that were prevalent with the Board".

5.17.2 In view of the above, AEGCL humbly submits the special charges on account of Bulk Supply tariff has been computed considering the Bulk Supply Tariff at 20 paise per unit of energy sent out to APDCL as approved by the Hon'ble Commission vide order dated 21.03.2022. Accordingly, the Special Charges for FY 2023-24 are tabulated below:

Table 74 : BST for FY 2023-24

(Rs. Crore)

S.N.	Particulars	As per T.O. dated 21.03.2022	FY 2023-24
1	Energy Sent Out to APDCL (MUs)		11455.67
2	BST Charge (Rs. /kWh)	231.75	0.20
3	Total (3=1*2/10)	231.75	229.11

5.17.3 AEGCL requests the Hon'ble Commission to consider the above charges amounting to Rs. 229.11 crore and approve it without any disallowance.

5.18 Non-Tariff Income for FY 2023-24

5.18.1 As per the AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021, the amount of non-tariff income shall be deducted from the aggregate revenue requirement in determining annual transmission charges of the Transmission Licensee.

5.18.2 The income in this category comprises of income from investments with Banks, miscellaneous receipts, etc., Year-wise details of Non-tariff Income are shown in the table below:



Table 75: Non-Tariff Income for 2023-24

(Rs. Crs.)

S.N.	Particulars	As per T.O. dated 21.03.2022	FY 2023-24
A	Income from Investment, Fixed & Call Deposits		
	Income from Investments		1.78
	Interest on fixed deposits		45.91
	Income on other investments (Dividend)		
	Interest from Banks		1.18
	Interest on GPF		2.05
	Sub Total		46.82
B	Other Non-Tariff Income		
	Miscellaneous Receipts		
	Penalty for contractor/supplier for delay, etc.		7.19
	Rebate received from PGCIL		
	Rentals from staff quarters		
	Sub-Total		
C	Total	54.01	54.01

5.18.3 Income from other investment (Dividend) - As per clause 68.1 of MYT Regulation 2021, "Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the regulated business of the Transmission Licensee shall not be included in Non-Tariff Income". Therefore, the interest/dividend earned from North East Transmission Company Limited (NETCL) by AEGCL has not been considered under NTI.

5.18.4 Interest on GPF- The GPF liability is payable to an employee only after completion of 25 years of qualifying services. The accumulation of GPF is utilized as internal resources by AEGCL. As such GPF is shown as unsecured loan and the interest payable on GPF has been computed at 7.10% per annum for FY 2023-24 amounting to Rs. 2.05 crore. Interest on GPF is deducted from NTI, Further AEGCL requests the Hon'ble Commission to approve the interest on GPF that has been deducted from NTI.

5.19 Income from Open Access Consumers for FY 2023-24

5.19.1 The Income from open access consumers has been projected based on actual of FY 2021-22 and six months actual for FY 2022-23. AEGCL hereby submits the



projected income from open access consumers is considered same as approved in tariff order dated 21.03.2022 for FY 2023-24 is provided below:

Table 76 : Income from Open Access for FY 2023-24

(Rs. Crore)

S.N.	Particulars	As per T.O. dated 21.03.2022	FY 2023-24
1	Income from OA Consumers	12.00	12.00
2	Total	12.00	12.00

5.20 Contribution to Contingency Reserves for FY 2023-24

5.20.1 In accordance with Regulation 67.9 of AERC (terms & conditions for determination of Multi Year Tariff) Regulations, 2021 stipulate the computation of contingency reserves is as follows:

" 67.9.1 The Transmission Licensee may make an appropriation to the Contingency Reserve of a sum not exceeding 0.1 per cent of the gross fixed assets approved by the Commission at the beginning of the year, for each year, which shall be allowed in the calculation of aggregate revenue requirement:

Provided that where the amount of such Contingency Reserve exceeds one (1) per cent of the gross fixed assets, no such appropriation shall be allowed, which would have the effect of increasing the reserve beyond the said maximum:

Provided further that the amount so appropriated may be invested in securities and fixed deposit. Interest earned shall be added to the Contingency Reserve.

Provided also that the Transmission Licensee shall maintain separate account for such reserve.

67.9.2 The Contingency Reserve shall not be drawn upon during the term of the licence except to meet such charges as may be approved by the Commission as being the expenses arising out of accidents, natural calamities or circumstances beyond the control of the Licensee;

Provided that such drawal from Contingency Reserve shall be computed after making due adjustments for any other compensation that may have been received by the Licensee as part of an insurance cover and Government Grant, if any."

5.20.2 The Hon'ble Commission has approved Rs. 2.91 crore for FY 2023-24 through its order dated 21.03.2022. The creation of contingency reserves for FY 2023-24 to coffer for protection of flood demised assets/ construction of new towers in place of collapsed towers. As it is well known that the river basins of Assam in general and north bank river basins in particular bear a pattern which is totally different



from other basin rivers in the country. Hence, contribution towards contingency reserves for FY 2023-24 is determined and provided below:

Table 77: Contribution towards Contingency Reserves for FY 2023-24
(Rs. Crs.)

S. N.	Particulars	As per T.O. dated 21.03.2022	FY 2023-24
1	Opening GFA for Previous year	2908.47	2914.3
2	% Factor	0.1%	0.10%
3	Contingency Reserves (1*2)	2.91	2.91

5.20.3 AEGCL hereby requests the Hon'ble Commission to approve the same as shown in the above table for FY 2023-24.

5.21 Transmission Incentive for FY 2015-16

5.21.1 Due to inadvertent error the transmission incentive was included as Non-Tariff income in the Audited Annual Accounts for FY 2015-16 and the same has been added to the Non-Tariff Income in the True Up Petition for FY 2015-16. The details of the same has been attached as **Annexure X (A)**.

5.21.2 However, the same has been rectified from FY 2016-17 onwards & the same has been claimed in the Tariff Petitions in addition to the ARR & the Hon'ble Commission after prudence check allows the incentive separately in addition to ARR in accordance with the provisions as per the regulations.

5.21.3 It is pertinent to mention that AEGCL suffered a loss of revenue of ₹ 10.60 crores due to reduction of incentive claim receivable from APDCL in the True Up Tariff Petition for the FY 2015-16 because of erroneous inclusion of incentive component of ₹ 10.60 crores as "Miscellaneous Receipt" under Non-Tariff Income (₹ 85.99 crores). This has also been pointed out by the O/o The Principal Accountant General (Audit), Assam in their Inspection Report for the period from April 2015 to March 2018. The details of Auditor's Inspection report have been attached as **Annexure-X(B)**.

5.21.4 In view of the same, AEGCL humbly requests the Hon'ble Commission to allow the amount of incentive of Rs. 10.60 crores of FY 2015-16 without any disallowance.

5.22 Aggregate Revenue Requirement for FY 2023-24

5.22.1 Based on the category-wise expense as described above, the net Aggregate Revenue Requirement for FY 2023-24 of AEGCL is shown in the table below.



Table 78: Aggregate Revenue Requirement for FY 2023-24
(Rs.Crs.)

S. N	Particulars	As per T.O. dated 21.03.2022	FY 2023-24
1	O&M Expenses	234.74	259.07
a	Employee Cost	196.54	213.02
b	R&M Expenses	27.97	34.72
c	A&G Expenses	10.23	11.33
2	Depreciation	37.46	124.19
3	Interest & Finance Charges	22.36	5.16
4	Interest on Working Capital	13.86	18.81
5	BST for Pension Trust Fund	231.75	229.11
6	Return on Equity	14.02	119.53
7	Contribution to Contingency Reserve	2.91	2.91
8	Less: Non-Tariff Income/ Other Income	54.01	54.01
9	Add: Incentive for FY 2015-16	-	10.60
10	Aggregate Revenue Requirement	503.11	715.39
11	Less: Revenue from STOA/MTOA Charges	12.00	12.00
12	Net Aggregate Revenue Requirement	491.11	703.39
13	Revenue Gap /(Surplus) for FY 2023-24		212.30

5.22.2 In view of the above, AEGCL requests the Hon'ble Commission to approve the Aggregate Revenue Requirement of Rs. 703.39 Cr.

5.23 Tariff Computation for FY 2023-24

5.23.1 AEGCL summarizes the Truing up exercise for FY 2021-22, APR for FY 2022-23 and the ARR for FY 2023-24 and submits the following Tariff computation.

5.23.2 The Gap on account of True-up for FY 2021-22 along with the carrying Cost has been computed below. The Interest rate has been considered equal to the average State Bank of India MCLR (1 Year tenure) prevalent last available six months plus 300 basis points as per AERC (MYT Regulations) 2021.

Table 79 : Total Gap of FY 2021-22 along with Carrying Cost

Particulars	Rs. Crs.
Revenue Surplus for FY 2021-22	14.89
Carrying cost on Revenue Gap for FY 2021-22	3.11
Total Gap / (Surplus)	18.00

**Table 80 : Carrying/ Holding Cost of FY 2021-22**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24
Opening Balance	0	14.89	14.89
Recovery/(Addition) during the year	(14.89)	-	14.89
Closing Balance	14.89	14.89	
Rate of Interest (%)	10.00%	10.58%	10.58%
Carrying Cost	0.74	1.58	0.79
Total Carrying Cost			3.11

5.23.3 It is pertinent to mention that the Hon'ble Commission during the approval of ARR for FY 2021-22 doesn't consider the income on wheeling charges from Open Access charges for further deduction from Net ARR of respective Financial Year because of which during the True-Up of FY 2021-22, the same Open Access Charges is deducted from AEGCL's ARR resulting in reduction of ARR.

Table 81 : Tariff Computation for FY 2022-24

Particulars	FY 2023-24
Standalone Annual Revenue Requirement (Rs. Crs.)	703.39
Previous Revenue Gap / (Surplus) with carrying cost (Rs. Crs.)	18.00
Net Annual Revenue Requirement (Rs. Crs.)	721.39
Transmission Charge (Rs. / kWh)	0.62
Transmission Access Charge (Rs. /MW/Day)	7625.04

5.23.4 Transmission access charge has been computed as 2592 MW based on 10% escalation over Peak load of 2357 MW (12.08.2022) during FY 2022-23.

5.23.5 In view of the above, AEGCL requests the Hon'ble Commission to approve the Transmission Charge of Rs. 0.62/kWh and Transmission Access Charge of Rs. 7625.04 per MW/day for FY 2023-24.

**6 COMPLIANCE OF DIRECTIVES**

In reference to the directives issued by the Commission to AEGCL in the Tariff Order dated 21st March 2022, AEGCL submitted the replies to directives on quarterly basis to the Hon'ble Commission. AEGCL, hereby submit the replies to the Compliance of Directives to the Commission as under:

Sl. No.	Directives	Reply of AEGCL
1	Directive 1: Funding from Government of Assam for employer's contribution to Terminal Liabilities based on Actuarial valuation	<ul style="list-style-type: none">AEGCL submits that the actuarial valuation conducted in FY 2019 was placed before the GoA to provide one-time funding. As per the calculation, the past unfunded liability was Rs. 7086.24 Crs as on 31.01.2019.However, GoA has not provided one-time funding and continued to provide budgetary support for yearly deficit.GoA has made budgetary support of Rs.292 Crores for FY2021-22 and has already issued financial sanction for Rs.285 Crore for FY 2022-23.
	Directive 2: Energy Audit and Implementation of SAMAST	<ul style="list-style-type: none">The revised Energy Audit report for FY 2021-22 has been submitted to the Hon'ble Commission along with this True Up for FY 2021-22 Petition.The report based on the metered energy at different interconnection points and details of the Transmission losses has been submitted with the said petition.The status of the SAMAST as on 21.11.22 is attached herewith as Annexure-XII.
2	Directive 3: Capacity Building	<ul style="list-style-type: none">AEGCL has submitted the report on manpower planning study to the Hon'ble Commission on 15.03.2021 and 23.07.2021AEGCL has submitted the training calendar for its employees for FY 2021-22, duly approved by its Board on 21.04.2021 and 23.07.2021In order to facilitate preventive and schedule maintenance of transmission substations and lines on time, AEGCL has prepared a report on training for maintenance team and same has been submitted to the Hon'ble Commission on 23.07.2021.



Sl. No.	Directives	Reply of AEGCL
3	Directive 3: Maintenance of Project-wise Database	<ul style="list-style-type: none">• AEGCL submits that the AEGCL is maintaining the database on the individual projects under each scheme which is reviewed by the Hon'ble Commission on various meetings on regular basis.• Also, for the projects that have not been commenced by 31st Mar'2022, AEGCL will take prior approval from the Hon'ble Commission as per the necessary details mentioned by the Hon'ble Commission.



7 PRAYERS BEFORE THE HON'BLE COMMISSION

1. The present petition provides, AEGCL's approach for formulating the proposed tariff for ensuing year, the broad basis for projections used, summary of the proposals being made to the Hon'ble Commission.
2. In order to align the thoughts and principles behind the Tariff Proposal and the ARR, AEGCL respectfully seeks an opportunity to present their case prior to the finalization of the Tariff Order. AEGCL believes that such an approach would go a long way towards providing a fair opportunity to all the stakeholders including AEGCL and may eliminate the need for a review or clarification.
3. AEGCL may also be permitted to propose suitable changes to the ARR and the mechanism of meeting the revenue on further analysis, prior to the final approval by the Hon'ble Commission.
4. In view of the above, the Petitioner respectfully prays that Hon'ble Commission may:
 - Accept the Annual Revenue Requirements and Tariff proposal for Transmission Business respectively in accordance with:
 - The guidelines outlined in previous AERC Orders passed in various matters relating to AEGCL; and
 - To admit the True-up for FY 2021-22, APR for FY 2022-23 and ARR for FY 2023-24 as per the provisions of the AERC (MYT) Regulations, 2018 and AERC (MYT) Regulations 2021 and consider present Petition for further proceedings before Hon'ble Commission;
 - To approve the total recovery of Aggregate Revenue Requirement and revenue gap for FY 2023-24 along with other claims as proposed by AEGCL;
 - To grant any other relief as the Hon'ble Commission may consider appropriate;
 - To pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice;
 - To condone any error/omission and to give opportunity to rectify the same;
 - To permit AEGCL to make further submissions, addition and alteration to this Petition as may be necessary from time to time;

Regulatory Formats of AEGCL

S. No.	Particulars	Form No.
1	Aggregate Revenue Requirement Summary	F1
2	Transmission Losses	F2a
3	Transmission Availability	F2b
4	Statement of Work in progress	F17
5	Repair & Maintenance Expenses	F18
6	Employee Expenses	F19
7	Contingency Reserve	
8	Administration and General Expenses	F20
9	Bulk Supply Tariff (BST)	
10	Fixed Assets & Depreciation	F21
11	Interest & Finance Charges	F22
12	Working Capital Requirements	F25
13	Income Tax Provision	F28
14	Other Debits	
15	Statement of Equity	F23
16	Details of Non-Tariff Income	F26
17	Details of Expenses Capitalised	F24
18	Consumer Contributions & Grants towards cost of capital Assets	F21a
19	Calculation of weighted average rate of interest on actual loan	F12a
20	Calculation of normative loans	F12b

Revenue surplus / gap with carrying cost of Truing up & APR			
Particulars (A)	True-up of FY 21-22	APR of FY 22-23	ARR of FY 2023-24
Opening Balance	0	14.72	14.72
Recovery/(Addition) during the year	(14.72)	-	14.72
Closing Balance	14.72	14.72	
Rate of Interest (%)	10.00%	10.58%	10.58%
Carrying / (Holding Cost)	0.74	1.56	0.78
Total Carrying / (Holding Cost)			3.07

Particulars	Rs. Crore (Previous TO)
Revenue Surplus for FY 2021-22	14.72
Provisional Revenue surplus for FY 2022-23	
Carrying cost on Revenue Surplus for FY 2021-22	3.07
Carrying cost on Revenue Surplus for FY 2022-23	-
Total Gap / (Surplus)	17.79

Determination of Tariff for FY 2022-23

Particulars	FY 2023-24 (Previous TO)
Stand-alone Annual Revenue Requirement	703.39
Previous Revenue Gap / (Surplus) with carrying cost	17.79
Net Annual Revenue Requirement	721.18
Transmission Charge (Rs./ kWh)	0.62
Peak Load (MW)- 12.08.22	2,592.44
Transmission Access Charge (Rs/MW/Day)	7,622.78

S. No.	Particulars	FY 21-22		FY 22-23				FY 23-24	
		True up		APR				ARR	
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-23 H2	Total AEGCL Submission	Approved in Order dtd 21.03.22	Projected
1	O&M Expenses	219.60	221.06	223.11	119.53	119.53	239.05	234.74	259.07
a	Employee Cost	185.10	186.23	184.39	99.59	99.59	199.18	196.54	213.02
b	R&M Expenses	23.84	24.31	28.89	14.56	14.56	29.12	27.97	34.72
c	A&G Expenses	10.26	10.21	9.83	5.38	5.38	10.75	10.23	11.33
d	Training Expenses	0.40	0.30	-			-		
2	Impact of Revision of Pay	-	-	-	-	-			
3	Depreciation	35.97	51.91	35.96	56.89	56.89	113.78	37.46	124.19
4	Interest & Finance Charges	24.06	0.01	24.32	7.56	7.56	15.11	22.36	5.16
5	Interest on Working Capital	11.06	12.21	12.30	8.52	8.52	17.04	13.86	18.81
6	BST for Pension Trust Fund	146.64	153.94	214.38	113.42	113.42	226.85	231.75	229.11
7	Return on Equity	15.49	15.49	13.68	33.25	33.25	66.51	14.02	119.53
8	Income Tax	-	-	-	-	-	-		-
9	Other debits (Excl. related to Int, Dep and O&M)	-	3.39		2.71	2.29	5.00		-
10	Contribution to Contingency Reserve		-	2.71	-	-	2.74	2.91	2.91
11	Less: Non-Tariff Income/ Other Income	63.73	54.80	54.01	34.35	19.66	54.01	54.01	54.01
12	Aggregate Revenue Requirement	389.09	403.19	472.45	307.53	321.80	632.07	503.09	704.79
13	Net Aggregate Revenue Requirement	389.09	403.19	472.45	307.53	321.80	632.07	503.09	704.79
14	Add: Incentive on Transmission Availability	-	2.64	-		-	-		
15	Add: Sharing of (Gains)/Loss	-	9.91				-		
16	Add: Incentive for FY 2015-16								10.60
17	ARR after Sharing (Gains)/Losses and Incentive	389.09	415.74	472.45	307.53	321.80	632.07	503.09	715.39
18	Revenue with Approved Tariff for FY 2021-22	389.09	389.09	472.45	-	-	472.45		503.09
19	Less: Revenue from STOA/MTOA Charges		11.94	12.00	3.16	8.84	12.00	12.00	12.00
20	Net Revenue Requirement		403.81	460.45	304.37	312.96	620.07	491.09	703.39
21	Revenue Gap /(Surplus) for FY 21-22	-	14.72				159.62		212.30

Transmission Loss

Form - 2a

S.No.	Particulars	Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	AEGCL Estimation	Approved in Order dtd 21.03.22	ARR
		FY 21-22 True Up		FY 22-23 APR		FY 23-24	
1	Energy Injected (MU)		10890.16		11922.38		12041.60
2	Energy Sent Out to APDCL (MU)		10262.67		11342.25		11455.67
3	Energy Sent Out to OA Consumers (MU)		265.96		184.31		188.00
4	Total Energy Sent Out		10528.63		11,526.56		11,643.67
4	Transmission Loss (MU)		361.53		395.82		397.93
5	Transmission Loss (%)	3.29%	3.32%	3.27%	3.32%	3.25%	3.30%

Statement showing monthwise incentive based on actual transmission availabilty for the FY 21-22

Sl. No	Month	No. of days in month	Annual transmission charge	Monthly transmission charges (in Rs)	Actual transmission availability (in %)	*Normative availability (in %)	Transmission charges inclusive of incentive (in Rs)	Incentive/ Unrecoverable TC (in Rs)	Formula applied
a	b	c	d	e=d X c/365	f	g	h=e X f / g	i = h -e	As per Clause-71.2 of AERC Regulation
1	April'21	30	3964500000	325849315.07	99.23	98.5	328264238.93	2414923.86	AFC x (NDM/NDY) x (TAFM/98.5%)
2	May'21	31	3964500000	336710958.90	99.33	98.5	339548218.76	2837259.86	AFC x (NDM/NDY) x (TAFM/98.5%)
3	June'21	30	3964500000	325849315.07	99.0646	98.5	327717076.73	1867761.66	AFC x (NDM/NDY) x (TAFM/98%)
4	July'21	31	3964500000	336710958.90	98.9759	98.5	338337768.50	1626809.60	AFC x (NDM/NDY) x (TAFM/98.5%)
5	August'21	31	3964500000	336710958.90	99.24	98.5	339240564.08	2529605.17	AFC x (NDM/NDY) x (TAFM/98.5%)
6	September'21	30	3964500000	325849315.07	99.051	98.5	327672086.36	1822771.30	AFC x (NDM/NDY) x (TAFM/98.5%)
7	October'21	31	3964500000	336710958.90	99.2738	98.5	339356105.50	2645146.60	AFC x (NDM/NDY) x (TAFM/98.5%)
8	November'21	30	3964500000	325849315.07	99.2217	98.5	328236781.57	2387466.50	AFC x (NDM/NDY) x (TAFM/98.5%)
9	December'21	31	3964500000	336710958.90	99.3217	98.5	339519846.16	2808887.26	AFC x (NDM/NDY) x (TAFM/98.5%)
10	January'22	31	3964500000	336710958.90	99.0808	98.5	338696357.13	1985398.22	AFC x (NDM/NDY) x (TAFM/98.5%)
11	February'22	28	3964500000	304126027.40	98.968	98.5	305571011.97	1444984.58	AFC x (NDM/NDY) x (TAFM/98.5%)
12	March'22	31	3964500000	336710958.90	99.104	98.5	338775663.67	2064704.76	AFC x (NDM/NDY) x (TAFM/98.5%)
	Total	365	47574000000	3964500000	1189.8615	1182	3990935719	26435719.36	

Note: Normative availability of 98.5% is applied where actual availability was higher than or equal 98.5% to calculate incentive (subject to maximum of 99.75%)
Normative availability was considered equal to actual availability where actual availability was between 98% to 98.5% so that there is neither unrecoverable Transmission Charge nor incentive.

Incentive bill amount for 21-22

Rs. 2,64,35,719.36

Rs. 2,64,35,719.00

Special Charges on Bulk Supply Tariff

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR		FY 23-24
		True-Up		APR		ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	AEGCL Submission	AEGCL Submission
1	Special Charges on Bulk Supply Tariff	146.64	153.94	214.38	226.85	229.11
	Total	146.64	153.94	214.38	226.85	229.11

S.No.	Particulars	Units	FY 21-22 True Up		FY 22-23 APR		FY 23-24
			True up		APR		ARR
			Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	Total AEGCL Submission	AEGCL Submission
1	O&M expenses for 1 month	Rs. Crore	18.3	18.42	18.59	19.92	21.59
2	Maintenance spares @ 15% of O&M	Rs. Crore	32.94	33.16	33.47	35.86	38.86
3	Receivables for two months	Rs. Crore	59.40	70.53	70.94	105.34	117.46
	Total Working Capital	Rs. Crore	110.64	122.11	123.00	161.12	177.91
	Rate of Interest	%	10.00%	10.00%	10.00%	10.58%	10.58%
	Interest on Working Capital	Rs. Crore	11.06	12.21	12.30	17.04	18.81

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR				FY 23-24
		True up		APR				ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-23 H2	Total AEGCL Submission	AEGCL Submission
1	Salaries		94.29		47.18	57.00	104.18	116.04
2	Additional Pay		-		0.00	0.00	0.00	-
3	Dearness Allowance (DA)		23.41		14.70	19.00	33.70	37.53
4	Other Allowances & Relief		14.20		7.58	10.00	17.58	19.58
5	Addl. Pay & C.Off Encashment		-		0.00	0.00	0.00	-
6	Interim Relief / Wage Revision		-		0.00	0.00	0.00	-
7	Honorarium/Overtime		0.42		0.08	0.50	0.58	0.64
8	Bonus/ Exgratia To Employees		0.30		0.13	0.25	0.38	0.42
9	Medical Expenses Reimbursement		0.14		0.09	1.00	1.09	1.21
10	Travelling Allowance(Conveyance Allowance)		-		0.00	1.00	1.00	1.11
11	Leave Travel Assistance		0.01		0.00	0.00	0.00	0.00
12	Earned Leave Encashment		3.88		1.30	1.50	2.80	3.12
13	Payment Under Workman's Compensation And Gratuity		6.06		3.03	3.50	6.53	7.27
14	Subsidised Electricity To Employees		-		0.00	0.00	0.00	-
15	Any Other Item		-		0.00	0.00	0.00	-
16	Staff Welfare Expenses		0.33		0.02	0.05	0.07	0.07
17	Apprentice And Other Training Expenses		-		0.00	0.00	0.00	-
18	Contribution To Terminal Benefits		20.95		10.36	13.00	23.36	26.02
19	Provident Fund Contribution		-		0.00	0.00	0.00	-
20	Provision for PF Fund		-		0.00	0.00	0.00	-
21	Any Other Items		-		0.00	0.00	0.00	-
22	Total Employee Costs		163.99		84.46	106.80	191.26	213.02
23	Less: Employee expenses capitalised							
24	Net Employee expenses	185.1	163.99	184.39	84.46	106.80	191.26	213.02
	AEGCL Employee expenses		163.99		84.46	106.80	191.26	
	SLDC Employee expenses							

Normative Calculation of Employee expense

$$EMP_n = (EMP_{n-1}) \times (1+G_n) \times (\text{CPI inflation})$$

	Particulars	FY 21-22	FY 22-23	FY 23-24
1	Base Employee Cost (n-1)	173.95	186.23	199.18
2	Avg CPI rate of precedeeding three years	6.00%	5.89%	5.89%
3	Gn (Growth Factor for nth Year)	1.00%	1.00%	1.00%
4	Normative Employee Cost (Excl. ROP)	186.23	199.18	213.02
5	Revision of Pay			
	Normative Employee Cost for the year (Incl. Revision of Pay)	186.23	199.18	213.02

CPI

<u>FY 2021-22</u>	356.06	5.13%	5.89%
<u>FY 2020-21</u>	338.69	5.02%	6.00%
<u>FY 2019-20</u>	322.5	7.53%	5.35%
<u>FY 2018-19</u>	299.92	5.45%	4.22%
FY 2017-18	284.42	3.08%	4.28%
FY 2016-17	275.92	4.12%	5.35%
FY 2015-16	265.00	5.65%	
FY 2014-15	250.83	6.28%	
FY 2013-14	236.00		

Average CPI

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR				FY 23-24
		True up		APR				MYT
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-23 H2	Total AEGCL Submission	AEGCL Submission
1	Plant & Machinery	23.84	7.01	28.89	2.18	8.86	11.04	11.75
2	Buildings		1.76		0.99	1.39	2.38	2.53
3	Civil works		0.48		0.16	0.22	0.38	0.40
4	Hydraulic Works		-		0.00	0.00	0.00	0.00
5	Lines, Cable Networks etc.		3.52		2.26	4.20	6.46	6.87
6	Vehicles		0.26		0.09	0.13	0.23	0.24
7	Furniture & Fixtures		0.08		0.05	0.06	0.11	0.11
8	Office Equipment		0.31		0.14	0.15	0.29	0.31
9	Total		13.42		5.87	15.02	20.89	22.22
10	Any other items (Capitalisation)		-		0.00	0.00	0.00	0.00
	Total	23.84	13.42	28.89	5.87	15.02	20.89	22.22
	AEGCL R&M		13.42		5.87	15.02	20.89	

0.52%

Normative Calculation of R&M expense

0.76%

 $R\&Mn = K \times (GFA_{n-1}) \times (WPI \text{ inflation})$

Particulars	FY 21-22	FY 22-23	FY 23-24
Opening GFA for previous year	2,388.52	2,557.99	2,732.20
Closing GFA for previous year	2,557.99	2,732.20	2,893.29
Average GFA for previous year	2,473.25	2,645.09	2,812.74
K Factor	0.96%	0.75%	0.75%
WPI Inflation	2.41%	5.32%	5.32%
Normative R&M Expense	24.31	20.89	22.22
Expenditure for Colony Maintenance of AEGCL		5.93	5.93
Expenditure for Emergency Restoration System		2.3	-
Additional amount for procurement of Emergency Spare materials			4.69
Additional amount for Cyber Security			1.88
Net Normative R&M Expense		29.12	34.72

WPI

Average after excluding -ve

<u>FY 2021-22</u>	139.41	13.00%	5.32%
<u>FY 2020-21</u>	123.37	1.29%	2.41%
<u>FY 2019-20</u>	121.8	1.67%	2.96%
FY 2018-19	119.80	4.26%	2.98%
FY 2017-18	114.90	2.96%	0.33%
FY 2016-17	111.60	1.73%	-0.24%
FY 2015-16	109.70	-3.69%	
FY 2014-15	113.90	1.24%	
FY 2013-14	112.50		
Average WPI			

2.98%

2.34%

Funding of Capitalisation
(Rs.Crs.)

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR		FY 23-24
		True up		APR		ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	Total AEGCL Submission	AEGCL Submission
1	Grant	605.27	130.61	190.73	134.98	923.04
2	Equity	0		2.78	7.42	0.00
3	Debt	77.46	43.60	6.49	18.68	1.39
	Total Capitalisation	682.73	174.21	200.00	161.09	924.43

Form - F20
Rs. Crore

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR				FY 23-24
		True up		APR				ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-23 H2	Total AEGCL Submission	AEGCL Submission
1	Lease/ Rent/Rates and taxes		0.45		0.39	0.16	0.55	0.55
2	Insurance		0.08		0.06	0.73	0.79	0.79
3	Revenue Stamp Expenses Account		-		0.00		0.00	-
4	Telephone, Postage, Telegram & Telex Charges		0.14		0.06	0.05	0.11	0.11
5	Incentive & Award To Employees/Outsiders		0.12		0.00	0.00	0.00	-
6	Consultancy Charges		0.40		0.27	0.23	0.50	0.50
7	Technical Fees		-		0.00	0.00	0.00	-
8	Other Professional Charges		0.42		0.28	0.17	0.45	0.45
9	Conveyance And Travelling		4.04		0.78	0.24	1.02	1.02
10	License and Registration Fees		0.01		0.01	0.01	0.02	0.02
11	Vehicle Expenses		0.70		2.44	1.55	3.99	3.99
12	Security / Service Charges Paid To Outside Agencies		-		0.00	0.00	0.00	-
13	Fee And Subscriptions Books And Periodicals		4.38		3.36	0.64	4.00	4.00
14	Printing And Stationery	9.97	0.27	9.83	0.18	0.10	0.28	0.28
15	Advertisement Expenses		0.28		0.27	0.03	0.30	0.30
16	Contributions/Donations To Outside Institutes / Associations		0.03		0.00	0.03	0.03	0.03
17	Electricity Charges To Offices		1.39		0.30	1.23	1.53	1.53
18	Water Charges		0.00		0.00	0.00	0.00	0.00
19	Entertainment Charges		0.43		0.07	0.32	0.39	0.39
20	Miscellaneous Expenses		0.08		0.08	0.01	0.09	0.09
21	Legal Charges		0.11		0.08	0.04	0.12	0.12
22	Auditor's Fee		0.09		0.04	0.05	0.09	0.09
23	Freight On Capital Equipments		0.02		0.01	0.01	0.02	0.02
24	Purchase Related Advertisement Expenses		0.00		0.00		0.00	-
25	Vehicle Running Expenses Truck / Delivery Van		0.18		0.01	0.12	0.13	0.13
26	Vehicle Hiring Expenses Truck / Delivery Van		-		0.00		0.00	-
27	Other Freight		0.00		0.01	0.01	0.02	0.02
28	Fees including TA and DA for non-official member of the Board		0.01		0.09	0.11	0.20	0.20
29	Fees for conducting recruitment & Other Departmental Examinations				0.01	0.00	0.01	0.01
30	Participation fees paid for Training/conference				0.00		0.00	0.00
31	Training of Staff and Officers				0.11	0.08	0.19	0.19
32	Total A&G Expenses	10.26	13.63	9.83	8.92	5.92	14.83	14.83
33	Less: A&G Expenses Capitalised							
34	Net A&G Expenses	10.26	13.63	9.83	8.92	5.92	14.83	14.83
	AEGCL A&G		13.63		8.92	5.92	14.83	

Normative Calculation of A&G expense

A&Gn = (A&Gn-1) x (WPI inflation) + Provision

Particulars	FY 21-22	FY 22-23	FY 23-24
A&G Expense for Previous year	9.97	10.21	10.75
WPI Inflation	2.41%	5.32%	5.32%
Provision	0	0	0
Normative A&G Expense for the year	10.21	10.75	11.33
Normative A&G Expense for the year	10.21	10.75	11.33

WPI				Avg excluding -ve
FY 2021-22	139.41	13.00%	5.32%	
FY 2020-21	123.37	1.29%	2.41%	
FY2019-20	121.8	1.67%	2.96%	
FY 2018-19	119.80	4.26%	2.98%	2.98%
FY 2017-18	114.90	2.96%	0.33%	2.34%
FY 2016-17	111.60	1.73%	-0.24%	
FY 2015-16	109.70	-3.69%		
FY 2014-15	113.90	1.24%		
FY 2013-14	112.50			

Form 5: Assets & Depreciation

(A) Gross Fixed Assets

Sr. No.	Particulars	FY 2021-22					FY 2022-23				FY 2023-24			
		Actual					Estimated				Projected			
		Balance at the beginning of the year	Additions during the year		Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year
1	Land owned under full ownership	38.67	6.31		-	44.98	44.98	2.69	-	47.67	47.67	-		47.67
2	Land under lease				-		-	-	-	-	-	-	-	-
3	Building	55.95	5.71		-	61.67	61.67	5.80	-	67.47	67.47	-		67.47
4	Hydraulic	2.64	-		-	2.64	2.64	-	-	2.64	2.64	-		2.64
5	Other Civil Works	127.85	3.40		-	131.26	131.26	11.47	-	142.73	142.73	24.44		167.17
6	Plant & Machinery	1,241.98	72.70		-	1,314.68	1,314.68	93.89	-	1,408.57	1,408.57	623.74		2,032.31
7	Lines & Cable Network	1,074.82	84.21		-	1,159.03	1,159.03	40.32	-	1,199.35	1,199.35	261.37		1,460.72
8	Vehicles	4.95	-		-	4.95	4.95	-	-	4.95	4.95	-		4.95
9	Furniture & Fixtures	7.00	0.77		-	7.77	7.77	1.98	-	9.75	9.75	5.32		15.07
10	Office Equipment	4.11	1.11		-	5.22	5.22	4.94	-	10.16	10.16	9.56		19.72
11	Any other assets	-	-		-	-	-	-	-	-	-	-		-
	Total	2,557.99	174.21		-	2,732.20	2,732.20	161.09	-	2,893.29	2,893.29	924.43	-	3,817.72

(B) Depreciation

(Rs. Crore)

Sr. No.	Particulars	FY 2021-22					FY 2022-23			FY 2023-24		
		Actual					Actual			Estimated		
		Depreciation Rate	Accumulated depreciation at the beginning of the year	Additions during the year	Deduction during Year	Accumulated depreciation at the end of the year	Accumulated depreciation at the beginning of the year	Additions during the year	Accumulated depreciation at the end of the year	Accumulated depreciation at the beginning of the year	Additions during the year	Accumulated depreciation at the end of the year
1	Land owned under full ownership	0.00%	-	-		-	-	0.01	0.01	0.01		0.01
2	Land under lease	3.34%	0.05	0.01		0.06	0.06	0.06	0.06	0.06	-	0.06
3	Building	3.34%	23.56	2.05		25.61	25.61	1.91	27.52	27.52	2.253	29.78
4	Hydraulic	5.28%	2.51	-		2.51	2.51	-	2.51	2.51	-	2.51
5	Other Civil Works	3.34%	18.84	4.17		23.01	23.01	4.00	27.01	27.01	5.175	32.18
6	Plant & Machinery	5.28%	551.49	72.22		623.71	623.71	63.49	687.20	687.20	90.839	778.04
7	Lines & Cable Network	5.28%	765.13	59.28		824.41	824.41	55.50	879.91	879.91	70.226	950.14
8	Vehicles	9.50%	4.45	-0.00		4.45	4.45	-	4.45	4.45	0.000	4.45
9	Furniture & Fixtures	6.33%	3.94	0.45		4.39	4.39	0.47	4.86	4.86	0.786	5.64
10	Office Equipment	6.33%	3.17	0.58		3.75	3.75	0.66	4.41	4.41	0.946	5.35
11	Any other assets	5.28%	-	-		-	-	-	-	-	-	-
	Total		1,373.14	138.76	-	1,511.90	1,511.90	126.04	1,637.93	1,637.93	170.23	1,808.16

(C) Net Fixed Assets

(Rs. Crore)

Sr. No.	Particulars	FY 2021-22					FY 2022-23				FY 2023-24			
		Actual					Actual				Estimated			
		Fixed Asset - beginning of the year	Additions during the year		Withdrawals during the year	Fixed Asset - end of the year	Fixed Asset - beginning of the year	Additions during the year	Withdrawals during the year	Fixed Asset - end of the year	Fixed Asset - beginning of the year	Additions during the year	Withdrawals during the year	Fixed Asset - end of the year
1	Land owned under full ownership	38.67	6.31		-	44.98	44.98	2.68	-	47.66	47.66	-	-	47.66
2	Land under lease	-0.05	-0.01		-	-0.06	-0.06	-	-	-0.06	-0.06	-	-	-0.06
3	Building	32.39	3.66		-	36.06	36.06	3.89	-	39.94	39.91	-2.25	-	37.66
4	Hydraulic	0.13	-		-	0.13	0.13	-	-	0.13	0.13	-	-	0.13
5	Other Civil Works	109.01	-0.76		-	108.25	108.25	7.47	-	115.72	115.72	19.26	-	134.98
6	Plant & Machinery	690.49	0.48		-	690.97	690.97	30.40	-	721.37	719.38	532.90	-	1,252.28
7	Lines & Cable Network	309.69	24.93		-	334.62	334.62	-15.18	-	319.44	319.44	191.14	-	510.59
8	Vehicles	0.49	0.00		-	0.49	0.49	-	-	0.49	0.49	-0.00	-	0.49
9	Furniture & Fixtures	3.06	0.33		-	3.38	3.38	1.51	-	4.90	4.88	4.53	-	9.42
10	Office Equipment	0.95	0.52		-	1.47	1.47	4.28	-	5.75	5.73	8.61	-	14.35
11	Any other assets	-	-		-	-	-	-	-	-	-	-	-	-
	Total	1,184.85	35.45		-	1,220.30	1,220.30	35.05	-	1,255.35	1,253.29	754.21	-	2,007.50

Sharing of Gain/(Losses) -O&M expense FY 2021-22

S. No	Particulars	Actual	Normative	Gain/(Losses)	Gains/(Losses) to be shared with APDCL
		a	b	c=b-a	d=c*1/3
1	Employee Cost	163.99	186.23	22.24	
2	Less: Terminal Liabilities	27.00	27.00	-	-
3	Employee Cost excl. Terminal Liabilities	136.98	159.23	22.24	7.41
4	Repair & Maintenance	13.42	24.31	10.89	3.63
5	Administrative & General Expenses	13.63	10.21	-3.42	-1.14
6	Total (A)	164.03	193.75	29.72	9.91

Note – No sharing of gains or losses has been considered for Terminal liabilities and ROP.

S.No.	Particulars	FY 21-22	
		Approved in Order dtd 15.02.21	AEGCL Submission
	Loan Details		
A	Interest charges on State Govt. Loans, Bonds And Advances,		
1	State Government Loans		0.00
2	ADB Loan		
3	Central Government Loans		-
4	General Provident Fund		2.05
	Sub-total		2.05
B	Interest on Long Term Loans/Credits from the Fls/banks/organisations approved by the State Govt.		
	Secured Loans		
	Unsecured Loans		
C	Other Interest & Finance Charges		
	Cost of raising Finance/Bank Charges		0.01
	Penal Interest Charges		
	Sub-total		0.01
D	Grand Total Of Interest & Finance Charges (A+B+C)		2.06
E	Less : Interest & Finance Charges Capitalised		
	Net Total Of Interest Finance Charges (D-E)		2.06

S.No.	Particulars		FY 21-22 Actual						
			Loan Tenure	Rate of Interest	Opening Balance	Amount received	Principal repayment	Interest Due	Closing Balance
	Loan Details								
A	Interest charges on State Govt. Loans, Bonds And Advances,								
1	State Government Loans			10%	542.73	8.79		0.00	551.52
2	ADB Loan			10.50%	95.68	0.0			95.68
3	Central Government Loans					-			0.00
4	General Provident Fund			7.10%	35.17	2.70	13.34	2.05	26.58
	Sub-total				673.58	11.49	13.34	2.05	673.78
	Interest on Long Term Loans/Credits from the Fls/banks/organisations approved by the State Govt.								
A	Secured Loans							0.00	0
B	Unsecured Loans							0.00	0
C	Other Interest & Finance Charges								0
	Cost of raising Finance/Bank Charges							0.01	0
	Penal Interest Charges								0
	Sub-total				0.00	0.00	0.00	0.01	0.00
D	Grand Total Of Interest & Finance Charges (A+B+C)				673.58	11.49	13.34	2.06	673.78
E	Less : Interest & Finance Charges Capitalised								0
	Net Total Of Interest Finance Charges (D-E)				673.58	11.49	13.34	2.06	673.78

S.No.	Particulars		FY 22-23 (H1) Actual						
			Loan Tenure	Rate of Interest	Opening Balance	Amount received	Principal repayment	Interest Due	Closing Balance
	Loan Details								
A	Interest charges on State Govt. Loans, Bonds And Advances,								
1	State Government Loans			10%	551.52	-542.73		0.43	8.79
2	ADB Loan			10.50%	95.68	-95.68		0.00	0.00
3	Central Government Loans				0.00	0.00		0.00	0.00
4	General Provident Fund			8.00%	26.62	1.23	3.14	1.85	26.57
	Sub-total				673.82	-637.18	3.14	2.28	35.35
	Interest on Long Term Loans/Credits from the Fls/banks/organisations approved by the State Govt.								
A	Secured Loans								0
B	Unsecured Loans								0
C	Other Interest & Finance Charges								0
	Cost of raising Finance/Bank Charges								0
	Penal Interest Charges								0
	Sub-total				0.00	0.00	0.00	0.00	0.00
D	Grand Total Of Interest & Finance Charges (A+B+C)				673.82	-637.18	3.14	2.28	35.35
E	Less : Interest & Finance Charges Capitalised								0
	Net Total Of Interest Finance Charges (D-E)				673.82	-637.18	3.14	2.28	35.35

S.No.	Particulars		FY 22-23 (H2) Estimated						
			Loan Tenure	Rate of Interest	Opening Balance	Amount received	Principal repayment	Interest Due	Closing Balance
	Loan Details								
A	Interest charges on State Govt. Loans, Bonds And Advances,								
1	State Government Loans			10%		19.00		0.47	19.00
2	ADB Loan			10.50%		0.00		0.00	0.00
3	Central Government Loans				-	-		0.00	0.00
4	General Provident Fund			8.00%	26.57	1.23	6.86	1.85	22.79
	Sub-total				26.57	20.23	6.86	2.32	41.79
	Interest on Long Term Loans/Credits from the Fls/banks/organisations approved by the State Govt.								
A	Secured Loans							0.00	0
B	Unsecured Loans							0.00	0
C	Other Interest & Finance Charges								0
	Cost of raising Finance/Bank Charges							0.01	0
	Penal Interest Charges								0
	Sub-total				0.00	0.00	0.00	0.01	0.00
D	Grand Total Of Interest & Finance Charges (A+B+C)				26.57	20.23	6.86	2.33	41.79
E	Less : Interest & Finance Charges Capitalised								0
	Net Total Of Interest Finance Charges (D-E)				0.00	20.23	6.86	2.33	41.79

S.No.	Particulars		FY 22-23 (Total) Estimated						
			Loan Tenure	Rate of Interest	Opening Balance	Amount received	Principal repayment	Interest Due	Closing Balance
	Loan Details								
A	Interest charges on State Govt. Loans, Bonds And Advances,								
1	State Government Loans			10%	551.52	-523.73	0	0.90	27.79
2	ADB Loan			10.50%	95.68	-95.68	0	0.00	0.00
3	Central Government Loans				-	-	0	0.00	0.00
4	General Provident Fund			8.0%	53.19		10.00	3.70	43.19
	Sub-total				700.38	-619.41	10.00	4.60	70.97
	Interest on Long Term Loans/Credits from the Fls/banks/organisations approved by the State Govt.								
A	Secured Loans							0.00	0
B	Unsecured Loans							0.00	0
C	Other Interest & Finance Charges							0.00	0
	Cost of raising Finance/Bank Charges							0.01	0
	Penal Interest Charges							0.00	0
	Sub-total				0.00	0.00	0.00	0.01	0.00
D	Grand Total Of Interest & Finance Charges (A+B+C)				700.38	-616.94	10.00	4.61	70.97
E	Less : Interest & Finance Charges Capitalised								0
	Net Total Of Interest Finance Charges (D-E)				700.38	-616.94	10.00	4.61	70.97

Normative Loan Computation

(Rs.Crs.)

S.No.	Particulars	FY 2021-22		FY 22-23		FY 23-24
		True Up		APR		Revised ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	AEGCL Submission	AEGCL Submission
1	Net Normative Opening Loan	217.95	205.68	255.95	197.37	102.28
2	Addition of normative loan during the year	77.46	43.60	6.49	18.68	1.39
3	Normative Repayment during the year	35.97	51.91	35.96	113.78	124.19
4	Net Normative Closing Loan	259.44	197.37	226.48	102.28	-
5	Interest Rate	10.08%	0.00%	10.08%	10.08%	10.08%
6	Interest Expenses on Loan	24.06	-	24.31	15.10	5.15
7	Finance Charges		0.01	0.01	0.01	0.01
8	Total Interest and Finance Charges	24.06	0.01	24.32	15.11	5.16

Particulars	21-22	22-23	23-24
Gross Fixed Assets (a)	2,732.20	2,893.29	3,817.72
Gross Fixed Assets excluding Land (b)	2,687.22	2,845.62	3,770.05
Conersion of Grant to Equity		1,955.05	1,955.05
Opening CWIP (c)	803.32	904.13	992.00
Grant (CWIP + Assets) (d)	2,184.81	364.75	1,287.79
Grant towards GFA (e=d*b/(b+c))	1,682.00	276.80	1,019.52
	21-22	22-23	23-24
Total Depreciation	138.76	126.04	170.23
Less : Dep twds assets through Grant/Consumer cont	86.85	12.26	46.03
Depreciation for the year (excl assets through grant and consumer contribution (to be considerd in ARR)	51.91	113.78	124.19

Work In Progress

S.No.	Particulars	FY 21-22	FY 22-23			FY 23-24
		True up	APR			ARR
		AEGCL Submission	FY 22-23 H1	FY 22-23 H2	Total	AEGCL Submission
1	Opening balance	803.32	904.13	948.91	904.13	992.00
	Less:					
	Excess CAPEX booked during prior period	20.38				
	Add:					
2	i) Capital expenditure	295.73	60.38	188.61	248.99	681.21
	ii) Interest & Finance charges capitalised (78.900)				-	
	iii) Other expenses capitalised	-	-	-	-	
	Less:					
	Inter Unit Transfer of CAPEX					
	Total capital expenditure for the year (i+ii+iii)	295.73	60.38	188.61	248.99	681.21
	Less :Capitalisation	174.54	15.59	145.52	161.11	924.43
	Closing Balance	904.13	948.91	992.00	992.00	748.78

S.No.	Particulars	FY 21-22			FY 22-23									FY 23-24
		True up			H1 Actual			H2 Projection			Total Estimated			Revised ARR
		Balance at the beginning of the year	Addition during the year	Balance at the end of the year	Balance at the beginning of the year	Addition during the year	Balance at the end of the year	Balance at the beginning of the year	Addition during the year	Balance at the end of the year	Balance at the beginning of the year	Addition during the year	Balance at the end of the year	Addition during the year
1	Consumer Contribution Towards Cost Of Capital Assets	3.30	17.76	21.06	21.06		21.06	21.06	32.33	53.39	21.06	32.33	53.39	12.39
2	Grant Towards Cost Of Capital Assets / Promoter's Contribution*	1,955.05	208.70	2,163.75	2,163.75	-1,904.12	259.63	259.63	110.71	370.34	2,163.75	-1793.40716	370.34	923.04
	(a) Grant From GOA	751.62	54.49	806.11	806.11	-700.69	105.42	105.42	28.09	133.51	806.11	-672.6021511	133.51	213.13
	(b) Grant From ADB/AIIB	966.86		966.86	966.86	-966.86	-	-	0	-	966.86	-966.860165	-	0.00
	(c) Grant From Central Government	236.56	154.21	390.78	390.78	-236.56	154.21	154.21	82.62	236.83	390.78	-153.9448434	236.83	709.91
		1,958.35	226.47	2,184.81	2,184.81	-1,904.12	280.70	280.70	143.04	423.74	2,184.81	-1,761.08	423.74	935.43

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR				FY 23-24
		True up		APR				MYT
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-22 H2	Total AEGCL Submission	AEGCL Submission
1	Income Tax Payable	0	-	0	0	0	0	0

Rs. Crore

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR				FY 23-24
		True up		APR				ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-23 H2	Total AEGCL Submission	AEGCL Submission
1	Other debits		3.39	-	2.71	2.29	5.00	-
	Compensation for injuries,deaths and damage of outsiders							0
	Loss on obsolescence of stores, etc.		1.58					0
	Transmission lines/sub-stations de-commissioning costs							0
	Loss to fixed assets on account of flood ,cyclone, fire,etc.		1.80		2.71	2.29	5.00	0
	Total	0	3.39	-	2.71	2.29	5.00	-

Non-Tariff Income

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR				FY 23-24
		True up		APR				ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-23 H2	Total AEGCL Submission	AEGCL Submission
A	Income from Investment, Fixed & Call Deposits							
	Income from Investments		1.18			-	-	1.78
	Interest on fixed deposits		45.91		17.67	17.04	34.71	45.91
	Income on other investments (Dividend)		1.78				-	
	Interest from Banks		1.18		0.75	0.30	1.05	1.18
	Interest on GPF		-2.05		-1.85	-1.85	-3.70	-2.05
	Sub Total		48.00		16.57	15.49	32.06	46.82
B	Other Non-Tariff Income						-	
	Rental from contractors/others		0.48		0.30		0.30	
	Inspection Bungalow/Guest house charges		0.03		0.03		0.03	
	Electricity charges from employees		0.00		0.00		0.00	
	Sale of tender forms		0.04		0.04		0.04	
	Penalties recovered from suppliers/contractors		-2.57		-0.30		-0.30	
	Other Miscellaneous Receipt				0.40		0.40	
	Income from Supervision/Service charges on deposit works		6.51		2.77	4.00	6.77	
	Income from Fibre Optic Network		0.69				-	
	Revised testing bill raised against Aradhana Agency by T&C Dibrugarh.	63.73	0.03	54.01			-	
	Income from Testing Bill raised by MRT & T&C Divisions						-	
	Application fees from STOA consumers		-				-	
	Testing bills raised against testing of transformer, circuit breaker, etc.		0.01				-	
	Rental charges for occupying land at 132/33KV Baghja by Shyama Power India Ltd.		0.01				-	
	LR Bill of Techno Electric Company & Engineering Pvt Ltd Raised		0.27				-	
	Bill for Transformer Oil filtration raised against APDCL.		0.11				-	
	Hire Charges from Contractors/Suppliers/Others		0.18		0.02	0.10	0.12	
	Sale of scrap		0.88		14.46	-	14.46	
	Profit on sale of fixed assets					-	-	
	Rebate received from PGCIL		-			-	-	
	Rentals from staff quarters		0.14		0.06	0.07	0.13	
	Sub-Total		6.81		17.78	4.17	21.95	
	Total	63.73	54.80	54.01	34.35	19.66	54.01	54.01

Return on Equity

S.No.	Particulars		FY 21-22 True Up		FY 22-23 APR		FY 23-24
			True up		APR		ARR
		Units	Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	Total AEGCL Submission	AEGCL Submission
1	Equity (Opening Balance)	Rs. Crore	99.93	99.93	99.93	99.93	885.39
2	Net additions during the year	Rs. Crore	0	-	2.78	785.46	-
3	Less : Reduction during the year	Rs. Crore	0	-	0.00	-	-
4	Equity (Closing Balance)	Rs. Crore	99.93	99.93	102.71	885.39	885.39
5	Average Equity	Rs. Crore	99.93	99.93	101.32	492.66	885.39
6	Rate of Return on Equity	%	15.50%	15.50%	13.50%	13.50%	13.50%
7	Return on Equity	Rs. Crore	15.49	15.49	13.68	66.51	119.53

S.No.	Particulars	FY 21-22 True Up		FY 22-23 APR				FY 23-24
		True up		APR				ARR
		Approved in Order dtd 15.02.21	AEGCL Submission	Approved in Order dtd 21.03.22	FY 22-23 H1	FY 22-23 H2	Total AEGCL Submission	AEGCL Submission
1	Participation fees paid for Training/conference		0.00				0	
2	Training of Staff and Officers		0.30		0.11	0.08	0.19	0.30
3	Others-Actual				-		-	
	Total	0.40	0.30	0	0.11	0.08	0.19	0.30

Conversion of Grant and Loan to Equity

Grant & Loan as on 31.03.21

2593.46

Details	Details as on 31.03.2022	Conversion to Equity	Loan	Equity
			70%	30%
Grant	1955.05	1955.05	1368.54	586.52
Loan		638.41	446.89	191.52
ADB Loan	95.68	95.68	66.98	28.70
GoA Loan	542.73	542.73	379.91	162.82
Total	2593.46	2593.46	1815.42	778.04

Sl. No	Particulars	FY 2022-23	FY 2023-24
1	Opening GFA for the current year	2737.67	2914.3
2	% Factor	0.10%	0.10%
3	Contingency Reserves (1*2)	2.74	2.91

Annexure-I
Audited Accounts of AEGCL
for FY 2021-22

Annual Accounts 2021-22



**ASSAM ELECTRICITY GRID CORPORATION
LIMITED.**

CIN: U40101AS2003GC007238

(A Public Sector Undertaking)

**[Registered Office: Bijulee Bhawan, Paltan Bazar,
Guwahati – 781001]**

1
ASSAM ELECTRICITY GRID CORPORATION LIMITED


BALANCE SHEET AS AT 31ST MARCH, 2022


(₹ Lakh)

Particulars	Notes	As at 31st March, 2022	As at 31st March, 2021
I. EQUITY & LIABILITIES			
(A) Shareholder's Funds			
(a) Share Capital	1	9,993	9,993
(b) Reserves and Surplus	2	2,02,594	1,68,386
(B) Share Application Money (Pending Allotment)	3	-	-
(C) Non Current Liabilities			
(a) Long Term Borrowings	4	67,382	28,492
(b) Long Term Provisions	5	682	303
(D) Current Liabilities			
(a) Short Term Borrowings	6	-	-
(b) Trade Payables	7	16,897	19,141
(c) Other Current Liabilities	8	88,607	1,33,215
(d) Short Term Provisions	9	2,775	2,489
Total ::		3,88,930	3,62,019
II. ASSETS			
(A) Non-Current Assets			
(a) Property, Plant and Equipment			
(i) Tangible Assets	10	1,22,215	1,18,666
(ii) Capital Work-In-Progress	10	90,413	80,332
(b) Non Current Investment	11	5,348	5,348
(c) Other Non Current Assets	12	36	27
(B) Current Assets			
(a) Current Investment	13	-	-
(b) Inventories	14	1,654	1,449
(c) Trade Receivable	15	14,797	14,761
(d) Cash & Cash Equivalents	16	1,11,395	1,00,244
(e) Short Term Loans & Advances	17	2,811	2,844
(f) Other Current Assets	18	40,261	38,348
Total ::		3,88,930	3,62,019
Significant Accounting Policies	I		


The accompanying notes form an integral part of these financial statements.

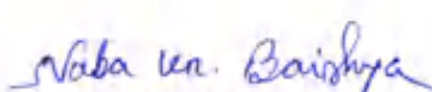
For and on behalf of the Board



(D. Das)
Managing Director


(P.K. Barman)
CGM (F&A) (i/c)

For R. M. KOTHARI & CO.
Chartered Accountants


(Prateek Kothari)
PARTNER
M. No. 413362
19/09/2022


(N.K. Baishya)
Independent
Director


(D. Barua)
Company Secretary


**STATEMENT OF PROFIT & LOSS ACCOUNT FOR THE YEAR ENDED
31ST MARCH, 2022**

(₹ Lakh)

Particulars	Notes	Year ended 31st March, 2022	Year ended 31st March, 2021
<u>I. INCOME</u>			
(a) Revenue From Operations	19	37,929	38,775
(b) Other Income	20	18,899	6,424
Total Revenue ::		56,828	45,199
<u>II. EXPENDITURE</u>			
(a) Employee Benefits Expense	21	16,986	14,499
(b) Finance Costs	22	210	7,289
(c) Depreciation and Amortization Expenses	23	12,410	11,550
(d) Other Expenses	24	16,676	14,123
Total Expenses ::		46,282	47,461
Profit (Loss) Before Tax (I-II)		10,546	(2,262)
<u>III. TAX EXPENSES</u>			
(a) Current Tax		-	-
(b) Deferred Tax		-	-
Profit (Loss) for the period		10,546	(2,262)
<u>IV. Earnings per share :</u>			
(a) Basic (In ₹)	25	106	(23)
(b) Diluted		-	-
Significant Accounting Policies	1		

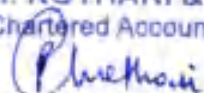
The accompanying notes form an integral part of these financial statements.

For and on behalf of the Board

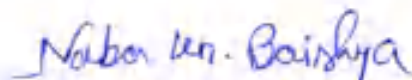

(D. Das)
Managing Director



(P.K. Barman)
CGM (F&A) (i/c)

For R. M. KOTHARI & CO.
Chartered Accountants


(Prateek Kothari)
PARTNER
M. No. 413362

19/09/2022


(N.K. Baishya)
Independent
Director

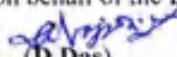

(D. Barua)
Company Secretary

ASSAM ELECTRICITY GRID CORPORATION LIMITED
CASH FLOW STATEMENT FOR THE YEAR ENDED 31ST MARCH, 2022

(₹ Lakh)

Sl. No.	Particulars	Year ended 31 st March, 2022	Year ended 31 st March, 2021
A	Cash Flow from Operating Activities		
	Net Profit (loss) before Tax	10,546	(2,262)
	Excess provision for MAT/Income Tax in Prior Periods	-	-
	Add :-		
	Misc. Expenditure written off	(9)	8
	Depreciation including adjustment	13,907	12,302
	Other income	(18,899)	(6,424)
	Interest & Finance Charges	210	7,289
	Provision for Income Tax	-	-
	Operating Profit (loss) before Working Capital changes	5,755	10,914
	Adjusted for :		
	Changes in Inventories	(205)	418
	Changes in Sundry Debtors	(36)	(1,573)
	Changes in Other Current Assets	(1,913)	(911)
	Changes in Loans and Advances	33	(25)
	Changes in Other Current Liabilities	(44,608)	45,346
	Changes in Short Term Provisions	286	(3,380)
	Changes in Trade Payable	(2,244)	130
	Changes in Short Term Borrowings	-	-
	Changes in Long Term Provisions	379	(859)
	Other income from PGCIL, sale of Fixed Assets, etc.	13,533	1,592
	Operating Profit (loss) after Working Capital changes	(29,020)	51,652
	Net Cash Flow from Operating Activities	(29,020)	51,652
B	Cash Flow from Investment Activities		
	Changes in Fixed Assets	(17,454)	(16,963)
	Changes in CWIP	(10,081)	6,576
	Changes in Investments	-	-
	Other income from FD with Banks, Interest from Banks, etc.	5,365	4,832
	Net Cash Flow from Investing Activities	(22,170)	(5,555)
C	Cash Flow from Financing Activities		
	Changes in Share Capital	-	-
	Changes in Secured Loan	-	-
	Changes in Unsecured Loan	39,744	(38,127)
	Changes in GoA Grant	5,449	4,812
	Changes in ADB Grant	-	-
	Changes in Grant from Central Government	15,422	2,633
	Changes in Customer's Contribution towards cost of capital assets	1,776	330
	Changes in GPF	(855)	(901)
	Changes in Other Reserves	1,015	1,196
	Interest and Other Charges	(210)	(7,289)
	Net Cash Flow from Financing Activities	62,341	(37,346)
	Net Changes in Cash and Cash Equivalents (A+B+C)	11,151	8,751
	Opening Balance of Cash and Cash Equivalents	1,00,244	91,493
	Closing Balance of Cash and Cash Equivalents	1,11,395	1,00,244

For and on behalf of the Board

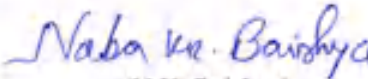
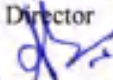

 (D. Das)
 Managing Director


 (P.K. Barman)
 CGM (F&A) (i/c)

For R. M. KOTHARI & CO.
 Chartered Accountants

 (Prateek Kothari)
 PARTNER
 M. No. 413362

19/09/2022


 (N.K. Baishya)
 Independent
 Director

 (D. Barua)
 Company Secretary

Notes to the Financial Statements for the Year Ended 31st March, 2022

I. Significant Accounting Policies: -

1. Basis of Preparation and accounting:

These financial statements are prepared in accordance with applicable accounting standards in India and the relevant presentational requirements of the Companies Act, 2013. The Financial Statements have also been prepared on a going concern basis under the historical cost convention on the accrual basis of accounting except otherwise stated, in conformity with the Generally Accepted Accounting Principles ("GAAP").

The operations of the Corporation are governed by the provisions of the Electricity Act, 2003 and various regulations and policies framed there under by the appropriate authorities. Accordingly, the Financial Statements have been prepared in terms thereof.

Accounting policies approved by the Board of the Corporation have been followed while preparing the Annual Accounts under AS-1 related to Disclosure of Accounting Policies.

2. Inventories:

Inventories of stores and spares as at the end of the year are valued at cost.

3. Fixed Assets:

Classifications of Fixed Assets are as per Transfer Scheme. Addition of assets has been booked under their natural head of classification. Capitalizations of assets are done on completion /commission of the asset. Block Registers showing categories of Assets, the amount of depreciation charged/ withdrawn, year wise in respect of the assets are maintained at Head Office. The Fixed Asset Register showing particulars including quantitative details and situation of fixed assets as on 31.03.2022 has already been prepared. The Fixed Assets are stated at actual cost less accumulated depreciation.

4. Classification of Assets and Liabilities:

All assets & liabilities of the corporation are segregated into current & non-current based on the principles and definitions set out in the Schedule III of the Companies Act, 2013 as amended.

5. Capital work-in-progress:

All expenses incurred for acquiring, erecting and commissioning of fixed assets and incidental expenditure incurred during construction of the projects are shown under capital work-in-progress and are allocated to the fixed assets on the completion of the projects.

6. Depreciation/Amortization:

Depreciation is provided as per Schedule II of the Companies Act 2013. Part 'li' of this schedule states that "The useful life or residual value of any specific asset, as notified for accounting purposes by a Regulatory Authority constituted under an Act of parliament or by the Central Government shall be applied in calculating the depreciation to be provided for such asset irrespective of the requirements of this Schedule". As such depreciation has been provided at the rates specified in Appendix-I to Assam Electricity Regulatory Commission (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2015 on Straight Line Method subject to a maximum of 90% of the original cost of the asset. Rates of depreciation are shown in the following table.

Assets	Depreciation Rate
Land Owned under full title	0.00%
Land held under lease	3.34%
APDRP Land	0.00%
Building containing transmission installations	3.34%
Office Building	3.34%
Temporary erections such as wooden structures	100.00%
APDRP building	3.34%
Other Buildings	3.34%
Cooling Water System	5.28%
Cooling Tower & Circulating Water System	5.28%
Sweet water arrangement including reservoirs, etc.	5.28%
Plant and Pipeline for water supply in residential colony	5.28%
Drainage & sewage residential colony	5.28%

ASSAM ELECTRICITY GRID CORPORATION LIMITED

Other Roads	3.34%
APDRP Other Civil Works	3.34%
Miscellaneous Civil Works	3.34%
Transformers	5.28%
Other plant & equipment	5.28%
Material handling equipment-earth movers, bulldozers	5.28%
Material handling equipment-cement mixers	5.28%
Material handling equipment-cranes	5.28%
Material handling equipment-others	5.28%
Switch-gear including cable connections	5.28%
Batteries including charging equipments	5.28%
Fabrication shop/work-shop Plant & Equipment	5.28%
Lightning Arrestors (Pole Type)	5.28%
Lightning Arrestors (Station Type)	5.28%
Communication Equipment-Radio & High Frequency carrier system	6.33%
Communication Equipment-Telephone Lines & Telephones	6.33%
Static machine tools & equipments	5.28%
Air Conditioning plant static	5.28%
Air Conditioning plant portable	9.50%
Meter testing laboratory tools & equipment	5.28%
Equipment in hospitals/clinics	5.28%
Tools & Teckles	5.28%
Show-room equipment	5.28%
Other miscellaneous equipment	5.28%
Over-head lines(towers, poles, fixtures, overhead conductors & devices) - lines on fabricated steel supports operating at nominal voltages higher than 66KV	5.28%
Over-head lines(towers, poles, fixtures, overhead conductors & devices) - lines on fabricated steel supports operating at nominal voltages from 13.2 KV to 66 KV	5.28%
Over-head lines(towers, poles, fixtures, overhead conductors & devices) - lines on reinforced concrete supports/steel supports-11 KV and above	5.28%
Over-head lines(towers, poles, fixtures, overhead conductors & devices) - lines on treated wood supports	5.28%
Up gradation transmission & distribution network(33 to 66)	5.28%
Underground cables including joint boxes & disconnecting boxes-11KV	5.28%
Underground cables-cable duct systems	5.28%
Metering equipment	5.28%
Miscellaneous Equipments	5.28%
Trucks	9.50%
Jeeps, Trekkers & Motor Cars	9.50%
Other Vehicles	9.50%

ASSAM ELECTRICITY GRID CORPORATION LIMITED

Furniture & Fixtures	6.33%
Electrical wiring, Light & Fan Installations	6.33%
Others	6.33%
Calculators	6.33%
Typewriters	6.33%
Cash Registers in Cash Offices	6.33%
Refrigerators & water coolers	6.33%
Telephone & EPABX	6.33%
Computers	15.00%
Other Office Equipment	6.33%

The Depreciation on addition of assets during the year has been calculated day wise. AS-6 related to Depreciation Accounting has been followed while calculating the depreciation.

7. Revenue Recognition:

Wheeling Charges of electric energy is accounted on the basis of rates approved by the Hon'ble AERG i.e., Annual Fixed Charge of ₹396.45 Crore including SLDC Charge of ₹ 7.36 Crore for FY 2021-22 vide Tariff Order dated 15.02.2021. As per the said Tariff Order, the above Wheeling Charge includes the following.

- (a) Net ARR for Transmission for FY 2021-22 vide Tariff Order dated 15.02.2021 - ₹389.09 Crore.
- (b) SLDC Charges for FY 2021-22 vide Tariff Order dated 15.02.2021 - ₹ 7.36 Crore.

ABGCL had made adjustment of cumulative Revenue Surplus along with the building cost amounting to ₹ 32.71 Crore approved by the Hon'ble AERC after Truing up of AEGCL for FY 2019-20, vide Tariff Order dated 15.02.2021, to the monthly bills raised to APDCL during the FY 2021-22.

ABGCL had also made adjustment of cumulative Revenue Gap including carrying cost amounting to ₹ 0.97 Crore approved by the Hon'ble AERC after Truing up of SLDC for FY 2019-20, vide Tariff Order dated 15.02.2021, to the monthly bills raised to APDCL during the FY 2021-22.

Out of total wheeling charges ₹146.64 Crore relates to BST Charge against liability towards Pension Trust. But the actual BST Charge computed on the basis of actual energy sent out to APDCL works out to ₹ 153.88 Crore. After considering the above adjustments Revenue from Wheeling charges to APDCL stood at ₹ 364.71 Crore for the FY 2021-22. AS-9 related to Revenue Recognition has been complied.

8. Employee Benefits:

Pursuant to the Transfer Scheme, the Government of Assam (GoA) vide its Notification No.PEL.190/2004/69 dated 4th February, 2005 notified a plan for meeting out the terminal benefit obligations of personnel so transferred from ASEB to successor entities. As per Clause 1.5 of the said notification, "Terminal Benefit" means the ASEB's employee related

ASSAM ELECTRICITY GRID CORPORATION LIMITED

liabilities including payment of pension, gratuity, leave encashment and General Provident Fund and any other retirement benefits and other applicable benefits including right to appropriate revisions in the above benefits consistent with the practice that were prevalent in ASEB. Accounting for Retirement Benefits in the Financial Statements of Employers-Provision for Pension, Gratuity and Leave Salary Encashment have been provided as per actuarial valuation under AS-15.

(a) Funding for past-unfunded terminal liabilities shall be on the basis of actuarial valuation done as at 9th December 2004 and 4th May 2019. In respect of cash outflows towards past-unfunded liabilities of existing employees, existing pensioners and existing family pensioners, funding pattern will be guided by the aforesaid Government notification.

(b) Funding for future services-Terminal Benefits:

The Corporation makes a provision for terminal benefits liability for future service of its permanent employees joining in the service before 01.01.2004 @ 33.50% of Basic Pay plus Dearness Allowance as per AERC and in the line with the GoA's Notification mentioned above and Board's approval of Item No. 9 dated 22.01.2021.

(c) Leave Encashment benefit (LEB) of employees:

Leave encashment benefits of the old employees are accounted for on cash basis and the claim for recovery of the appropriate share of such amount, i.e., share of past liability relating to period prior to 01.04.2005 is forwarded to the pension trust authorities as per GoA's Notification mentioned here-in-above.

(d) GPF deductions/payments of employees:

Payment on account of GPF (Final Withdrawal and Non-refundable advance) to the existing employees is being made from the GPF Account of the Corporation. Claim for recovery of appropriate share of such fund, i.e., share of past-unfunded liability is also forwarded to the Pension Trust authorities as per GoA Notification mentioned here in above.

Provision for interest payable on GPF is made @ 7.10 % per annum on the opening balance and the average subscription of the employees during the year.



ASSAM ELECTRICITY GRID CORPORATION LIMITED

(e) Terminal benefit for new employees (appointed on or after 1.1.2004):

New pension Scheme is being implemented for the new employees of the Corporation as per Government of India Notification No.5/7/2003-ECB & PR dated 22.12.2003.

9. Accounting for Government Grants:

Government grants (both GoA and GoI) have been accounted as capital receipts and taken to Capital Reserves. Assets are not capitalized out of grant funds received during FY 2021-22. The assets capitalized during FY 2021-22 are funded through loans and grants received from Government prior to 31.03.2021. As the Government has approved the conversion of all the loans and grants as on 31.03.2021 into equity, AEGCL is unable to recognize the amount of grants in the proportion of depreciation on assets created out of grant funds in the Profit and Loss account for the current FY, as per the Method 2 of Accounting Treatment of Government Grant under AS-12 which states that "The Government grants for specific fixed assets are treated as a deferred income in the financial statements. This income is recognized gradually in the Profit and Loss account over the useful life of an asset or say in the proportion of depreciation on such asset". AS-12 Accounting for Government Grants has been complied.

10. Segment Reporting:

As the Corporation deals in single product and operates under the same economic environment and is not subject to different risk and return, segment reporting as per AS-17 is not required to be disclosed.

11. Investments:

Investment consists of Fixed Deposits with Banks. Investments are valued at cost.

12. Taxes on Income:

Current tax will be provided for on the taxable profits of the year at the applicable tax rates.

Calculation for MAT:

Particulars	Amount in ₹
Profit as per part II and III of Schedule VI	105,46,46,207
<u>Less:</u>	
BROUGHT FORWARD LOSS OR UNABSORBED DEPRECIATION WHICHEVER IS LESS	268,35,48,909
	(162,89,02,702)
Tax calculated @ 15.0% on Book Profit is ₹ 0	
Tax Due @ 25% (Turnover for Fin. Year 2019-20 is less than 400 Crore)	

13. Preliminary Expenses:

Preliminary expenses are written off over a period of five years in equal installments from the year of commencement of operations.

14. General Provident Fund:

GPF liability is payable to an employee only after completion of 25 years of qualifying services. Accumulation of GPF is utilized as internal resources by the Corporation. As such GPF has been shown as unsecured loan.

15. Prior Period Items:

Accounting of Prior period items have been done as per AS-5. Prior period items are income or expenses which arise in the current period as a result of errors or omissions in the preparation of the financial statements of one or more prior periods.

16. AS-30 related to financial instruments: recognition and measurement is not applicable to the Corporation.

17. BST Charge:

BST charge payable to Pension Trust has been calculated @15 paisa per unit on the actual energy injected to APDCL.

18. As per the Ministry of Corporate Affairs (MCA) notification no. G.S.R.111 (E) dated 16.02.2015, unlisted companies having net worth of rupees two hundred and fifty crore or more but less than rupees five hundred crore, shall comply with the Indian Accounting Standards (Ind AS) for the accounting periods beginning on or after 01.04.2017 [para4 (iii) (b)]. As per para 2(f) of the said notification, 'net worth' shall have the meaning assigned to it in clause (57) of Section 2 of the Companies Act, 2013. As per section 2(57) of the Companies Act, 2013, 'net worth' has been defined as "Aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation".

Thus, 'net worth' may be calculated using the following formula.

ASSAM ELECTRICITY GRID CORPORATION LIMITED

Net worth= (Paid-up Share Capital) + (All Reserves created out of profits of the company)-(Accumulated loss).

In this context it may be mentioned that in the books of accounts of AEGCL, "Reserves and Surplus" includes "Capital Reserves". These "Capital Reserves" are created out of Grant funds given by Government to AEGCL for creation of Fixed Assets of the corporation. Hence, as per the definition of 'net worth', these "Capital Reserves" should be excluded from "Reserves and Surplus" in computation of net worth, because these reserves are not created out of profits of the corporation.

Although the Hon'ble Assam Cabinet had approved the conversion of all the Government Loans & Grants of AEGCL as on 31.03.2021 into equity in its meeting held on 24.12.2021, AEGCL is in the process of increasing its Authorised Shares Capital. After all the formalities are complied with, AEGCL will convert all the Government Loans & Grants into equity shares as approved by the Hon'ble Cabinet, GoA and incorporate the same in the Annual Accounts for FY 2022-23. As such, these "Capital Reserves" could not be shown under "Paid-up Share Capital" in the FY 2021-22.

As per the definition and in view of above explanations, 'net worth' of AEGCL from the FY 2016-17 to FY 2021-22 have been calculated as shown in the following table.

(₹. in Crore)

Particulars	As on 31.03.2022	As on 31.03.2021	As on 31.03.2020	As on 31.03.2019	As on 31.03.2018	As on 31.03.2017
	(Provisional)	(Audited)	(Audited)	(Audited)	(Audited)	(Audited)
Paid-up Share Capital	99.93	99.93	99.93	99.93	99.93	99.93
Add: Reserves and Surplus (before adjustment of Accumulated Loss)	2339.08	2102.46	2012.74	1961.00	1848.90	1768.40
Less: Capital Reserves	2184.81	1958.35	1880.59	1843.69	1748.19	1681.99
Less: Accumulated Loss	313.14	418.60	395.98	332.42	464.04	821.42
Net-worth	(58.94)	(174.56)	(163.90)	(15.18)	(263.40)	(635.08)

It is seen from the above table that 'net worth' of AEGCL for the FY 2021-22 does not exceed ₹ 250 Crore. Thus as per the above mentioned notification of MCA, 'Ind AS' is not applicable to AEGCL for the FY 2021-22.

19. As per the Directive 3 (Segregation & Strengthening of SLDC) of the Tariff Order dated 07.03.2020 issued by the Assam Electricity Regulatory Commission (AERC), the income/expense pertaining to SLDC included in the "STATEMENT OF PROFIT & LOSS ACCOUNT FOR THE YEAR ENDED 31.03.2022" is shown in the following table.

**STATEMENT OF INCOME & EXPENSE ACCOUNT OF SLDC FOR THE YEAR ENDED
31ST MARCH, 2022**

(₹ Lakh)

Particulars	Year ended 31 st March, 2022	Year ended 31 st March, 2021
<u>I. INCOME</u>		
(a) Revenue From Operations	736	968
(b) Other Income	14	12
Total Revenue ::	750	980
<u>II. EXPENDITURE</u>		
(a) Employee Benefits Expense	587	430
(b) Repair & Maintenance Expenses	103	59
(c) Administration & General Expenses	52	42
(d) Finance Costs	-	-
(e) Depreciation and Amortization Expenses	31	29
(f) Net Prior Period Charges/(Credits)	(1)	-
Total Expenses ::	772	560
Profit (Loss) Before Tax (I-II)	(22)	420
<u>III. TAX EXPENSES</u>		
(a) Current Tax	-	-
(b) Deferred Tax	-	-
Profit (Loss) for the period	(22)	420



II. Notes on Accounts

The amounts in Financial Statements are presented in Indian Rupees and all figures have been rounded off to the nearest rupees lakh except when otherwise stated. The operations of the Corporation are governed by the provisions of the Electricity Act, 2003 and various regulations and policies framed there under by the appropriate authorities. The financial statements for the year ended 31st March 2022 are prepared as per Companies Act 2013. The previous year figures have also been reclassified/ regrouped/ rearranged wherever necessary.

1. SHARE CAPITAL

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Authorised Shares Capital		
10000000 equity share of 100 each	10,000	10,000
Issued, Subscribed and paid up		
9993194 equity share of ₹100/- each fully paid up	9,993	9,993
(Previous year 9993194 equity share of ₹100/- each fully paid up)		
Total	9,993	9,993

1.1 9993194 (previous year 9993194) shares out of the issued, subscribed and paid up Shares Capital were allotted as fully paid up pursuant to transfer scheme without payment being received in cash.

1.2 The details of shareholders

Name of the Shareholder	As at 31-03-2022		As at 31-03-2021	
	No	% Held	No	% Held
Government of Assam (G.O.A.)	99,93,194	100	99,93,194	100

1.3 The reconciliation of the number of shares outstanding is set out below

Particulars	As at 31-03-2022	As at 31-03-2021
Equity shares at the beginning of the year	99,93,194	99,93,194
Add : Shares Issued during the year	-	-
Equity shares at the end of the year	99,93,194	99,93,194

1.4 Although the Hon'ble Assam Cabinet had approved the conversion of all the Government Loans & Grants of AEGCL as on 31.03.2021 into equity in its meeting held on 24.12.2021, AEGCL is in the process of increasing its Authorised Shares Capital. The shareholders in its Extra Ordinary General Meeting held on 7th day of April, 2022 has approved the enhancement of the Authorised Shares Capital from the existing ₹100 Crores to ₹ 3000 Crores. After all the formalities are complied with, AEGCL will convert all the Government Loans & Grants into equity shares as approved by the Hon'ble Cabinet, GoA and incorporate the same in the Annual Accounts for FY 2022-23.

2. RESERVES AND SURPLUS

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Capital Reserves	2,18,481	1,95,835
Other Reserve	15,427	14,411
Profit & Loss Account :		
Profit (Loss) as per Last Balance Sheet	(41,860)	(39,598)
Profit (Loss) for the Year	10,546	(2,262)
	(31,314)	(41,860)
Total	2,02,594	1,68,386

(₹ Lakh)

2.1 Capital Reserve Includes :-As at 31-03-2022As at 31-03-2021

(a) Grant From GoA	80,611	75,162
(b) Grant From ADB	96,686	96,686
(c) Grant From Central Government	39,078	23,656
(d) Customer's contribution towards cost of capital assets	2,106	330

2.2 Other Reserve Includes :-

Claim for recovery of appropriate share (76.09 %) of GPF as past unfunded liabilities receivable from Pension Trust as per GoA notification No. PEL. 190/2004/69 dated 04-02-05.

3. SHARE APPLICATION MONEY PENDING ALLOTMENT

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Part of Share Capital of Assam State Electricity Board apportioned to the company vide transfer scheme as per notification of the Government of Assam dated 16-08-2005 which is pending allotment	-	-
Total	-	-

4. LONG TERM BORROWINGS

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
SECURED :		
	-	-
Sub-Total	-	-
UNSECURED :		
Loans from ADB	9,568	6,049
State Govt. Loan	55,152	18,926
General Provident Fund	2,662	3,517
Sub-Total	67,382	28,492
Total	67,382	28,492

4.1 As the Hon'ble Assam Cabinet had approved the conversion of all the Government Loans of AEGCL as on 31.03.2021 into equity in its meeting held on 24.12.2021, there is no repayment due on ADB and State Govt. Loan. As such all the repayment due on ADB and State Govt. Loan as on 31.03.2021 are transferred from OTHER CURRENT LIABILITIES (Note 8) to LONG TERM BORROWINGS (Note 4).

5. LONG TERM PROVISION

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Provision For Employee Benefits :		
Liability towards Pension Trust	682	303
Others :		
Provision for doubtful loans and advances	-	-
Total	682	303

5.1 Liability towards Pension Trust includes 33.50% of Pay plus DA of the permanent employees of AEGCL (excluding those who joined services on or after 01.01.04) for the FY 2021-22 for terminal benefits liability for future service as per AERC and GoA's notification No.PEL.190/2004/69 dated 04.02.2005 and Board's approval of Item No. 9 dated 22.01.2021.

5.2 Liability towards Pension Trust includes BST charge payable to Pension Trust computed @ ₹ 0.15 per unit on the actual energy injected to APDCL during FY 2021-22.

ASSAM ELECTRICITY GRID CORPORATION LIMITED

6. SHORT TERM BORROWINGS

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
SECURED :		
Bank Overdraft Account	-	-
UNSECURED :		
Total	-	-

7. TRADE PAYABLE

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Micro, Small And Medium Enterprises		
Others		
Wheeling Charges Payable to PGCIL	-	2,244
Liability Towards APDCL	16,897	16,897
Total	16,897	19,141

8. OTHER CURRENT LIABILITIES

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Repayment due on Secured Loan :		
	-	-
Sub-Total	-	-
Repayment due on Unsecured Loan :		
Repayment due on ADB Loan	-	3,519
Repayment due on State Govt. Loan	-	35,347
Sub-Total	-	38,866
Interest accrued and due :		
Interest accrued and due	51,368	64,210
Sub-Total	51,368	64,210
Other Payables :		
Liabilities for Capital supplies/works	4,210	2,586
Liabilities for O&M supplies/works	2,743	2,618
Unpaid salaries, wages, bonus, etc	6	6
Salaries, wages, bonus, etc., payable	2,422	2,327
Staff deduction and recovery payable	546	484
Deposits and retention from suppliers and contractors	9,822	7,222
Other Liabilities	17,457	14,863
Advance from APGCL	33	33
Advance For Terminal Benefits	-	-
Sub-Total	37,239	30,139
Total	88,607	1,33,215

(₹ Lakh)

8.1 Repayment due on Unsecured Loan includes :**As at 31-03-2022****As at 31-03-2021**

(i) Principal amount of ADB Loan became due for repayment

- 3,519

(ii) Principal amount of State Govt. Loan became due for repayment

- 35,347

As the Hon'ble Assam Cabinet had approved the conversion of all the Government Loans of AEGCL as on 31.03.2021 into equity in its meeting held on 24.12.2021, there is no repayment due on ADB and State Govt. Loan. As such all the repayment due on ADB and State Govt. Loan as on 31.03.2021 are transferred from OTHER CURRENT LIABILITIES (Note 8) to LONG TERM BORROWINGS (Note 4).

8.2 Interest accrued and due includes :**As at 31-03-2022****As at 31-03-2021**

(i) Interest accrued and due on SG Loan (ADB)

7,289 9,111

(ii) Interest accrued and due on State Govt. Loan

44,079 55,099

(iii) Interest accrued and due on borrowings for Working Capital

- -

9. SHORT TERM PROVISION**(₹ Lakh)**

Particulars	As at 31-03-2022	As at 31-03-2021
<u>Provision For Employee Benefits</u>		
Staff related provision	2,605	2,015
<u>Others</u>		
Provision for Liability for Expenses	170	474
Minimum Alternate Tax	-	-
Provision for Income Tax	-	-
Total	2,775	2,489

9.1 Staff related provision includes provision for bonus of ₹ 30, 00,000 /- and provision for gratuity of employees who are covered under New Pension Scheme. Provision for bonus has been made on the basis of expenditure of the previous year.

ASSAM ELECTRICITY GRID CORPORATION LIMITED

10. PROPERTY, PLANT AND EQUIPMENT

(₹ Lakh)

Description	GROSS BLOCK			DEPRECIATION				NET BLOCK	
	As at 1.4.2021	Additions/ Deletions during the year	As at 31.3.2022	As at 1.4.2021	Depreciation for the year	Deduction during the year	As at 31.3.2022	As at 31.3.2022	As at 31.3.2021
TANGIBLE ASSETS									
OWN ASSETS									
Land & Rights	3,867	631	4,498	5	-	-	6	4,492	3,862
Building	5,598	571	6,170	2,357	205	-	2,561	3,608	3,242
Hydraulic	264	-	264	251	-	-	251	13	13
Other Civil Works	12,789	340	13,130	1,884	417	-	2,301	10,828	10,905
Plant & Machinery	1,24,668	7,286	1,31,955	55,467	7,249	-	62,716	69,238	69,201
Lines & Cable Network	1,07,490	8,421	1,15,911	76,514	5,928	-	82,442	33,469	30,976
Vehicles	496	-	496	446	-	-	446	50	50
Furniture & Fixtures	717	85	802	400	46	-	446	356	317
Office Equipment	423	120	543	323	60	-	383	160	100
Total	2,56,312	17,454	2,73,767	1,37,647	13,907	-	1,51,553	1,22,215	1,18,666
CAPITAL WORK IN PROGRESS								90,413	80,332

10.1

- (i) Depreciation on Plant & Machinery has been charged on continued process plant basis.
- (ii) On fixed assets acquired during the year depreciation is charged on 'Put to Use'.
- (iii) Addition of Fixed Assets during the FY 2021-22 includes ₹ 117, 39, 75,130 /- related to prior periods.
- (iv) Addition of Depreciation during the FY 2021-22 includes ₹ 14, 96, 68,558/- related to prior periods.

10.2

(₹ Lakh)

Capital Work In Progress Includes :-

	<u>As at 31-03-2022</u>	<u>As at 31-03-2021</u>
(a) Capital works in progress	83,176	79,401
(b) Advance to suppliers/contractors (Capital)	7,237	931

ASSAM ELECTRICITY GRID CORPORATION LIMITED

11. NON CURRENT INVESTMENT

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Trade Investment	5,348	5,348
Other Investments	-	-
Total	5,348	5,348

11.1 Investment in M/s. North East Transmission Company Ltd. as on 31.03.2022 is ₹ 53, 48, 20,000 /- (5, 34, 82,000 Equity Shares of ₹10 each) against 13% Equity Share.

12. OTHER NON CURRENT ASSETS

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
<u>Long Term Trade Receivable</u>		
Unsecured Considered Good	-	-
<u>Others</u>		
Deferred Cost	-	-
Exp. On Surveys/Feasibility Studies	36	27
Total	36	27

13. CURRENT INVESTMENT

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Investment in Equity Instruments	-	-
Investment in Liquid Funds	-	-
Other Investment	-	-
Total	-	-



14. INVENTORIES

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
1. Capital Materials Stock A/c	2,497	2,105
2. O&M Materials Stock A/c	751	783
3. Other Material Account	328	323
4. Material Stock-Excess/Shortage Pending Investigation – Capital	25	25
Gross Total	3,601	3,237
Less Provision Against Stock	1,947	1,788
Net Total	1,654	1,449

14.1 After conducting a reconciliation of the difference between book figure of stocks and physical verification report of stocks during FY 2021-22, AEGCL has arrived at a difference amount of ₹ 0.30 crore as on 31.03.2022 as compared to a difference of ₹ 7.51 Crore as on 31.03.2021, which is in the process of reconciliation.

15. TRADE RECEIVABLES

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
(Unsecured & Considered Good)		
Over Six Months	-	-
Others	-	-
Receivables against Transmission Charges From-APDCL	14,797	14,761
Total	14,797	14,761

16. CASH & CASH EQUIVALENTS

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Balances With Bank	13,011	10,296
Cash In Hand	136	125
Fixed Deposits With Banks	98,248	89,823
Total	1,11,395	1,00,244

- 16.1 Balances with bank include closing bank balance of HQ as well as of all field units along with the fund in transit.
- 16.2 Cash in Hand includes closing cash balance of HQ as well as of all field units along with imprest with staff.
- 16.3 Fixed Deposits with Banks include closing balance of fixed deposit at various banks.

(₹ Lakh)

	As at 31-03-2022	As at 31-03-2021
STDRs managed by AEGCL (Principal Account)	89,284	80,889
STDRs managed by AEGCL-NERPSIP	259	529
STDRs managed by NPS Cell, AEGCL	1,600	1,600
STDRs managed by CPF-I, AEGCL	7,105	6,806
Total	98,248	89,823

17. SHORT TERM LOANS & ADVANCES

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
(Unsecured & Considered Good)		
Advances for O&M supplies/works	1,707	1,742
Loans and Advances to staff	90	88
Advance Income Tax	1,005	1,005
Amount receivable from Employees/Ex-Employees	4	4
Advances to APDCL	1	1
Others	4	4
Advances for GPF	-	-
Total	2,811	2,844

18. OTHER CURRENT ASSETS

(₹ Lakh)

Particulars	As at 31-03-2022	As at 31-03-2021
Income Accrued but not Due	2,261	1,539
Inter Unit A/c-Materials	771	789
Inter Unit A/c-Capital Expenditure & Fixed Assets	2	31
Inter Unit A/c-Personnel	-	-
Inter Unit A/c-Opening Balance	-	-
Inter Unit A/c-Other Transaction/Adjustments	114	114
Receivable From Pension Trust	23,695	22,660
Receivable From APDCL	10,525	10,525
Receivable From APGCL	3	2
Misc. Receivables	1,404	1,394
Receivable from Income Tax Authority	1,485	1,293
Other deposits	1	1
Total	40,261	38,348

18.1 As per GoA's notification No. PEL. 190/2004/69 dated 4th February, 2005, the unfunded past liability on account of GPF and LEB will be funded through the cash streams as mentioned therein and the existing Pension Trust of ASEB will be the common trust for all the new companies. In terms of the said notification and Board's approval of Item No. 8 dated 22.01.2021, ₹14, 85, 07,296 /- being unfunded past liability towards GPF and LEB paid during the year has been claimed from Pension Trust out of which an amount of ₹ 10, 15, 09,882/- relating to GPF has been transferred to Other Reserve.

18.2 Inter Unit Accounts include Inter Unit A/c-Materials of ₹ 771/- lakh, which is in the process of reconciliation.

18.3 Receivable from Income Tax Department includes Interest on Fixed Deposits deducted by Banks as TDS during FY 2021-22.

19. REVENUE FROM OPERATIONS

(₹ Lakh)

Particulars	Year ended 31-03-2022	Year ended 31-03-2021
Wheeling Charges (Transmission Charges) From APDCL	36,471	37,566
Wheeling Charges (Transmission Charges) From Open Access Consumers	1,194	1,202
Income from Transmission Incentive bill	264	7
Total	37,929	38,775

19.1 Revenue from Wheeling Charge of ₹ 396, 45, 00,000 /- including SLDC Charge of ₹ 7, 36, 00,000 /- was approved by the Hon'ble AERC vide Tariff Order dated 15.02.2021. The above wheeling charge includes ₹ 146, 64, 00,000/- as BST Charge payable to Pension Fund Investment Trust. But the actual BST Charge computed on the basis of actual energy sent out to APDCL works out to ₹ 153,08,02,000/-. AEGCL had made adjustment of cumulative Revenue Surplus of ₹ 32,71,00,000/- approved by the Hon'ble AERC after Truing up of AEGCL for FY 2019-20, vide Tariff Order dated 15.02.2021, to the monthly bills raised to APDCL during the FY 2021-22. AEGCL had also made adjustment of cumulative Revenue Gap of ₹ 97,00,000/- approved by the Hon'ble AERC after Truing up of SLDC for FY 2019-20, vide Tariff Order dated 15.02.2021, to the monthly bills raised to APDCL during the FY 2021-22. After considering the above adjustments Revenue from Wheeling charges to APDCL stood at ₹364, 71, 00,000/-Crore for the FY 2021-22.

19.2 The quantitative details of electrical energy transacted by the Corporation during the FY 2021-22 along with previous year were as follows:

Particulars				Energy Handled (in MU)	
				2021-22	2020-21
Power available at AEGCL periphery				10889.43	9746.59
Power injected to DISCOM & OA Consumers :				10524.64	9421.05
Power injected to APDCL & OA Consumers :					
	2021-22	2020-21			
APDCL	10258.68	9126.93			
OA Consumers	265.96	294.12			
Total	10524.64	9421.05			
Transmission Loss in AEGCL Network				364.79	325.54
Percentage of Transmission Loss				3.35	3.34

20. OTHER INCOME

(₹ Lakh)		
Particulars	Year ended 31-03-2022	Year ended 31-03-2021
Interest		
Interest on investment in the form of Fixed Deposits with Banks	4,591	3,901
Interest on Investments in any other Investments	-	-
Interest from Banks	121	83
Dividend		
Dividend from Investment	535	742
Net Gain on Sale of Investment		
Short Term Capital Gain from liquid fund	-	-
Long Term Capital Gain from liquid fund	-	-
Others		
Rebate received from PGCIL	-	-
Profit on sale of fixed assets	-	2
Hire Charges from contractors	-	-
Hire Charges from others/suppliers	18	9
Sale of scrap	88	-
Misc. receipts	13,414	1,568
Rentals from staff quarters	14	13
Income from Investment	118	106
Total	18,899	6,424

21. EMPLOYEE BENEFITS EXPENSE

(₹ Lakh)		
Particulars	Year ended 31-03-2022	Year ended 31-03-2021
Salaries and Wages	13,760	11,681
Contribution to Provident and Other Funds	2,170	1,966
Payment of ex-gratia	-	-
Payment of Gratuity	606	382
Other Employee Costs	417	421
Staff Welfare Expenses	33	49
Total	16,986	14,499

ASSAM ELECTRICITY GRID CORPORATION LIMITED

21.1 Contribution to Provident and Other Funds include 33.50% of Basic Pay and DA of employees who joined in service prior to 01-01-2004, which has been paid to the ASEB Employees Pension Fund Investment Trust and 14% of Basic Pay and DA of employees who are covered under New Pension Scheme. Payment of Gratuity includes provision for gratuity of employees who are covered under New Pension Scheme.

22. FINANCE COSTS

(₹ Lakh)		
Particulars	Year ended 31-03-2022	Year ended 31-03-2021
Interest Expenses	209	7,288
Other Borrowing Costs	1	1
Total	210	7,289

22.1

Interest on State Govt. Loan	-	5,397
Interest on ADB Loan	-	1,005
Interest on borrowings for Working Capital	-	-
Interest on GPF	209	269
Penal Interest	=	1,995
Sub-Total	209	8,666
Less Interest Capitalized	=	1,377
Total	209	7,288

22.2 Other Borrowing Costs include Bank Charges and Bank Commissions.

22.3 As the Hon'ble Assam Cabinet in its meeting held on 24.12.2021 approved the waiver of interest accrued on loan as on 31.03.2021, the provision for interest on loans becomes zero during FY 2021-22.

23. DEPRECIATION AND AMORTIZATION EXPENSES

Particulars	(₹ Lakh)	
	Year ended 31-03-2022	Year ended 31-03-2021
Depreciation on Leasehold Assets	1	1
Depreciation on Building	187	169
Depreciation on Hydraulic Works	-	-
Depreciation on Other Civil Works	393	379
Depreciation on Plant & Machinery	6,256	5,851
Depreciation on Lines , Cables Network	5,472	5,085
Depreciation on Vehicles	-	-
Depreciation on Furniture, Fixtures, etc.	44	38
Depreciation on Office Equipments	57	27
Total	12,410	11,550



ASSAM ELECTRICITY GRID CORPORATION LIMITED

24. OTHER EXPENSES

(₹ Lakh)

Particulars	Year ended 31-03-2022	Year ended 31-03-2021
Repairs And Maintenance Expenses :		
Repair and Maintenance of Plant & Machinery	744	1,068
Repair and Maintenance of Building	218	163
Repair and Maintenance of Other Civil Works	48	48
Repair and Maintenance of Lines, Cable Net Works, etc	352	150
Establishment Expenses :		
Rent, Rates and Taxes	54	43
Insurance	8	9
Telephone Charges	13	17
Postage, Telegram & Tele Charges	2	3
Audit Fees	9	8
Consultancy fees and expenses	40	36
Legal Charges	11	5
Technical fees and other professional fees and expenses	42	18
Fees including TA & DA for non official member of the Board	12	12
Conveyance and Travel	176	129
Fees & Subscription	435	125
Book and Periodicals	3	4
Printing and Stationery	28	27
Advertisement, Contributions	28	31
Contribution to charities, etc.	3	-
Hiring of Vehicles	308	209
Electricity Charges	163	191
Water Charges	-	-
Entertainments	43	7
Participation fees paid for Training/Conference	-	-
Training of Staff and Officers	35	24
Fees for conducting recruitment & Other Departmental Examinations	1	21
Misc. Expenses	8	24
Freight	2	1
Other Purchase related expenses	18	8
Other Miscellaneous Expenses	1	2
Repair and Maintenance of Vehicles	27	23
Repair and Maintenance of Furniture and Fixtures	9	8
Repair and Maintenance of Office Equipment	48	31
Other Debits To Revenue :		
Miscellaneous losses written off	339	5
Write-off of deferred revenue expenditure	-	-
Assets De-Commissioning Costs :		
Transmission lines/sub-stations de-commissioning costs	-	4
Bulk Supply Tariff :		
Bulk Supply Tariff	15,388	13,690
Prior Period Charges / (Credits)		
Net Prior Period Charges/(Credits)	(1,940)	(2,021)
Total	16,676	14,123

ASSAM ELECTRICITY GRID CORPORATION LIMITED

	Year ended 31-03-2022	(₹ Lakh) Year ended 31-03-2021
24.1 <u>Prior Period Item Includes</u>		
<u>Prior Period Expenses and Losses :</u>		
Transformer Oil related expenses/losses relating to prior period	-	-
Employee costs relating to prior periods	-	-
Depreciation under provided in prior periods	1,497	753
Other Expenses relating to Prior Period	57	140
Interest and other finance charges relating to prior periods	-	906
Materials related expenses relating to prior periods	-	-
<u>Prior Period Income :</u>		
Other income relating to prior periods	3,494	83
Other excess provision in prior periods	-	3,666
Excess provision for depreciation in prior periods	-	-
Excess provision for interest and finance charges in prior periods	-	72

24.2 Audit fee of ₹ 8,59,128/- includes the following :

As Statutory Audit Fees :	₹ 4,52,100 /-
GST :	₹ 81,378 /-
	₹ 5,33,478 /-
Tax Audit Fees :	₹ 32,450 /-
NPS Audit Fees :	₹ 17,700 /-
Secretarial Audit Fees :	₹ 49,500 /-
PSDF I & II Audit Fees :	₹ 41,900 /-
GST Audit Fees :	₹ 30,000 /-
Fees for Cost Auditors :	₹ 87,600 /-
NERPSIP Audit Fees :	₹ 6,000 /-
	₹ 10,500 /-
AIIB Audit Fees:	
(Out of Pocket Expenses) :	₹ 50,000 /-

ASSAM ELECTRICITY GRID CORPORATION LIMITED

25. EARNINGS PER SHARE (EPS)

Particulars	(₹ Lakh)	
	Year ended 31-03-2022	Year ended 31-03-2021
Net Profit After Tax as per Statement of Profit & Loss	10,546	(2,262)
Number of Equity Shares	99,93,194	99,93,194
Earnings Per Share (In ₹)	106	(23)
Face Value per Equity Share (In ₹)	100	100

26. RELATED PARTY DISCLOSURE:-1. Related Party and his relationship : Key Management Personnel

D.J. Hazarika	Managing Director
(W.e.f. 01.04.2021 to 31.10.2021)	
D. Deka	
(W.e.f. 01.11.2021 to 20.01.2022)	
D. Das	
(W.e.f. 21.01.2022 to 31.03.2022)	

2. Disclosure of transactions between the Corporation and the related parties and status of outstanding balances :

Particulars	Amount (In ₹)
(a) Salary/Remuneration	16,14,652
(b) Travelling Allowance	Nil
(c) Outstanding balances	Nil


27. Assets other than vehicles are not insured. Vehicles are also insured only for liabilities that may arise towards third parties.

28. The Board of Directors of AEGCL in the 76th meeting of the Board held on 27.09.2019 approved the creation of a Sinking Fund in the name of Self Insurance Reserve (SIR) @ 0.1% per annum of the total cost of the asset subject to the limit of 10% of the Gross Fixed Assets (GFA) and to implement the same on receiving the approval from the Hon'ble Assam Electricity Regulatory Commission (AERC) and accordingly AEGCL filed a miscellaneous petition before the Hon'ble AERC on 07.04.2022 seeking approval for creation of SIR but the order of the Commission is awaited.

ASSAM ELECTRICITY GRID CORPORATION LIMITED

29. Accounts in respect of Medical Expenses Reimbursement, Leave Travel Concession, Earned Leave Encashment, Telephone Charges, Electricity Charges, and Water Charges are maintained on accrual basis.
30. The internal audit of the Corporation's field units are being carried out by its own audit staff. The internal audit staff conducts internal audit of various field offices as well as head quarter. Reports are placed with MD, AEGCL. Any serious matter is discussed in Audit Committee of the Corporation.
31. In exercise of the powers conferred by section 148 of Companies Act, 2013, the Board of Directors of the Corporation had appointed M/s Musib & Co., Cost Accountants as the Cost Auditors of the Corporation for the FY 2021-22. The Corporation in the meantime has been able to maintain preliminary cost records.

For and on behalf of the Board

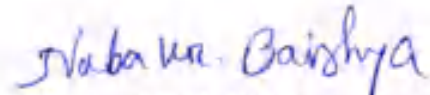

(D. Das)
Managing Director



(P.K. Barman)
CGM (F&A) (i/c)

OF R. M. S. VIARI & CO.
Chartered Accountants


(Prateek Kothari)
PARTNER
M. No. 413362

19/09/2022


(N.K. Baishya)
Independent Director


(D. Barua)
Company Secretary

Annexure-II
Energy Balance certified by SLDC
for FY 2021-22 & FY 2022-23

	<p align="center">Assam Electricity Grid Corporation Limited Regd. Office: 1st Floor, Bijulee Bhawan, Paltanbazar, Guwahati-781001 CIN: U40101AS2003SGC007238 Phone-0361-2739520 / Fax-0361-2739513 Web: www.aegcl.co.in</p>	
-----------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

No: AEGCL/CGM/SLDC/T-21/(Pt-III)/2022/6

Dated: 15/11/2022

To,
The Managing Director, AEGCL
Bijulee Bhawan, Paltan Bazar, Ghy-01

Subj.: Submission of revised Intra State Energy Accounts of AEGCL for the FY 2021-22

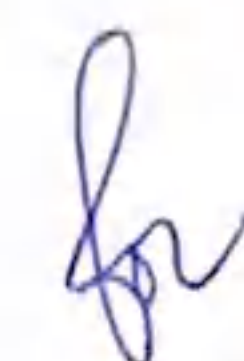
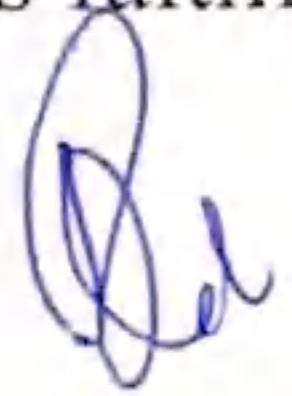
Dear Sir,

With reference to the mentioned subject, please find enclosed herewith the revised Intra State Energy Accounts of AEGCL for FY 2021-22. The same may change later subject to change/revision in Bilateral Exchange, REA (Regional Energy Accounting) and DSM (Deviation Settlement Mechanism) statements provided by NERPC.

Encls:

1. Energy Accounting Consolidated Statement of AEGCL for the FY 2021-22- Annexure I
2. Energy Accounting Summary Statement of AEGCL for the FY 2021-22- Annexure II

Yours faithfully,

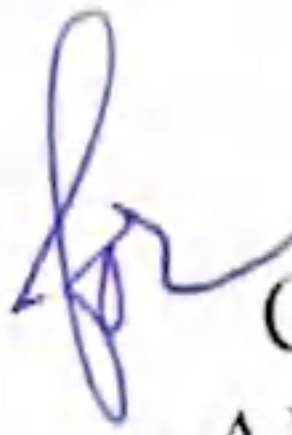



Chief General Manager, SLDC
AEGCL, Kahilipara, Guwahati-19

Memo No.: AEGCL/CGM/ SLDC/T-21/(Pt-III)/2022/6 (1-4)

Dated: 15/11/2022

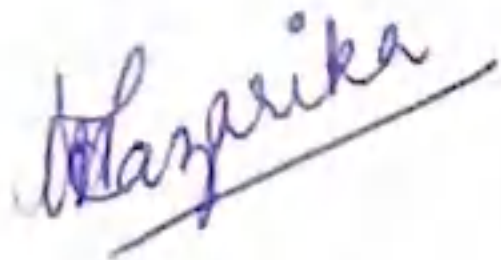
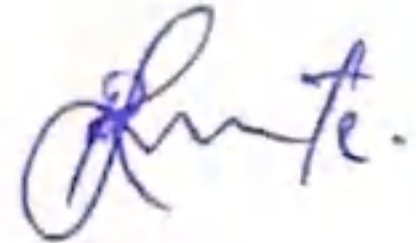
Copy to:

1. The CGM, Comm. & EE., APDCL, Bijulee Bhawan, Paltan Bazar, Ghy -01 for his information.
2. The CGM, PP&D, AEGCL, Bijulee Bhawan, Paltan Bazar, Ghy -01 for his information.
3. The DGM, F&A, AEGCL, Bijulee Bhawan, Paltan Bazar, Ghy -01 for his information.
4. Office copy.

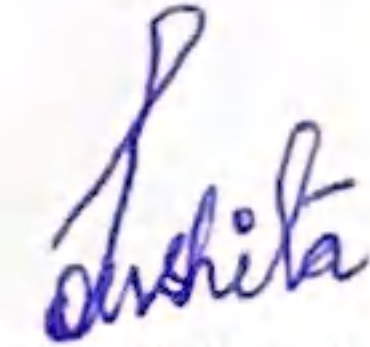
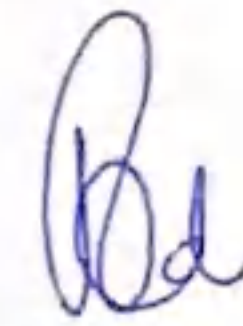


Chief General Manager, SLDC
AEGCL, Kahilipara, Guwahati-19

TRANSMISSION LOSS OF AEGCL FOR FY 2021-22		
Sl. No.	Particulars	in MU
1	Energy Injected	10890.185
1.1	Energy injected by APGCL	1996.417
1.2	Energy injected by PGCIL	9815.50
1.3	Energy injected by IPPs	92.684
1.4	Energy injected by CPPs	0.340
1.5	Energy sale through IEX (-)	1014.757
2	Total Energy Sent out	10528.63046
2.1	Energy sent out to APDCL	10262.67046
2.2	Energy sent out to OA Consumers (MU)	265.96
3	Transmission Loss (MU)	361.55
4	Transmission Loss (%)	3.32%

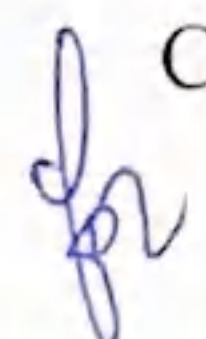
Prepared by:


JM, MO
SLDC, AEGCL

AM, MO
SLDC, AEGCL

Checked by:


AGM, MO
SLDC, AEGCL

DGM, Operations
SLDC, AEGCL

Countersigned by:


 CGM, SLDC
AEGCL

INTRA-STATE ENERGY ACCOUNTING FOR APRIL 2021-MARCH 2022

IMPORT DETAILS			ENERGY IN MU											
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	TOTAL	
FROM CSGS-NER	434.6791216	481.253966	574.9896	631.39832	620.2253	632.6494822	565.2473852	544.3595658	540.074502	452.8618753	475.5059677	524.8542741	6478.099	
FROM CSGS-ER	102.1768567	129.967603	161.41442	174.91998	167.4828	162.8058298	134.6445624	115.7871066	98.8676775	91.1432893	76.8385423	94.4355072	1510.484	
FROM LTA	17.47938	29.558705	36.449633	43.200983	36.51438	26.5913425	19.492795	16.7783375	19.988145	18.033925	16.25944	21.0318475	301.379	
FROM POWER EXCHANGE (IEX)/BLT	184.70113	118.309866	121.60921	108.15965	136.5666	164.9555577	196.8522885	46.1736242	58.3305372	108.68456	76.93303	139.01208	1460.288	
FROM APGCL	107.760843	130.461618	163.07243	189.807	196.2366	182.616655	215.845834	181.098046	174.812358	143.797827	162.214841	148.693038	1996.417	
FROM IPP	5.51158	5.42140006	5.78146	6.3970398	6.49472	7.19033987	8.16035987	8.6375601	7.96058	8.670979452	10.33446032	12.12382026	91.934	
THROUGH DSM	10.959745	5.8313661	13.682665	8.044	9.908278	7.826493	3.811772	2.292741	1.125748	-0.909452	0.311973	2.364531	65.250	
FROM 132 KV BCPL (AT BEHATING GSS)	0.008	0.0425	0.0053	0.0069	0.006600	0.006000	0.007600	0.006500	0.030100	0.030100	0.003500	0.005900	0.159	
FROM 33 KV BCPL (AT BORDUBI GSS)	0.013158	0.019102	0.009597	0.010747	0.013145	0.005443	0.004721	0.021832	0.018895	0.018895	0.011126	0.003690	0.150	
FROM 33 KV RK NAGAR (AT DULLAVCHERRA GSS)	0.0012	0.00084	0.00096	0.00132	0.000840	0.001320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.006	
FROM 33 KV OIL (AT DHALGAON GSS)	0	0	0	0	0.007747	0.000005	0.000000	0.000000	0.000000	0.000000	0.005500	0.011000	0.024	
TOTAL IMPORT	863.291	900.867	1077.015	1161.946	1173.457	1184.648	1144.067	915.155	901.209	822.332	818.418	942.536	11904.942	
(-) SALE THROUGH IEX	32.04	49.97	92.37	56.95	53.13	60.36	82.33	161.70	146.02	67.89	134.54	77.47	1014.757	
NET IMPORT	831.249	850.901	984.648	1104.994	1120.328	1124.287	1061.742	753.455	755.192	754.444	683.882	865.061	10890.185	
EXPORT DETAILS	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	TOTAL	
TO APDCL	781.786	798.715	929.193	1043.568	1067.431	1067.045	1008.098	703.620	700.165	698.154	640.480	824.417	10262.670	
TO OPEN ACCESS CONSUMERS	22.3702	24.269	22.4596	23.9569	14.5719	18.44386	17.9600673	25.94325122	30.62786394	32.05345522	21.61138616	11.69250566	265.960	
TOTAL EXPORT (B)	804.16	822.98	951.65	1067.52	1082.00	1085.49	1026.06	729.56	730.79	730.21	662.09	836.11	10528.63	
TRANSMISSION AND TRANSFORMATION (T&T) LOSS IN MU=	27.093	27.918	32.995	37.470	38.326	38.799	35.685	23.891	24.400	24.236	21.791	28.952	361.555	
TRANSMISSION AND TRANSFORMATION (T&T) LOSS IN % =	3.26%	3.28%	3.35%	3.39%	3.42%	3.45%	3.36%	3.17%	3.23%	3.21%	3.19%	3.35%	3.32%	

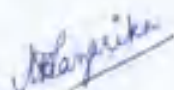
Annexure - II

ASSAM ELECTRICITY GRID CORPORATION LTD.

Format for Energy Data FY 2022-23

Sl No.	Particulars	FY 2022-23 (H1) (Actual)	FY 2022-23 (H2) (Estimated)	FY 2022-23 (H1 + H2) (Estimated)
1	Energy injected (in MU)	6451.191	5471.191	11922.382
2	Energy sent out to APDCL (in MU)	6172.356	5169.891	11342.247
3	Energy sent out to Open Access Consumers (in MU)	64.656	119.66	184.312
4	Total Energy Sent Out [(2)+(3)]	6237.012	5289.547	11526.559
5	Transmission Loss (in MU)	214.179	181.644	395.823
6	Transmission Loss (in %)	3.32	3.32	3.32

Prepared by:




JM, MO
SLDC, AEGCL



AM, MO
SLDC, AEGCL

Checked by:



AGM, MO
SLDC, AEGCL



DGM, Operations
SLDC, AEGCL

Countersigned by:



CGM, SLDC
AEGCL

Annexure-III
Energy Audit Report
for FY 2021-22

Energy Audit Report

Power Transmission Network of Assam Electricity
Grid Corporation Ltd.



Submitted by



Assam Electricity Grid Corporation Ltd.



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1 INTRODUCTION

Power Transmission is a vital link between power generation and power distribution. Till recently, India was struggling with the power deficit. With generation delicensed, India has sufficient generation capacity. However, lack of transmission capacity was a big challenge. For achieving the target of “Power for All”, a robust transmission network is must. Therefore, power sector has recognized the importance of integrated transmission planning and this sector has also garnered substantial private investment in last decade.

India’s transmission sector is primarily controlled by Government owned Companies. At Central Level, PGCIL, the Central Transmission Utility is responsible for national and inter-regional transmission network planning and at State Level, respective State Transmission Utilities are responsible for State level Transmission Planning. Historically, the power transmission business had been a monopoly as almost all projects were awarded either to PGCIL or state utilities on a regulated basis.

1.1 Background

1. From Mid-90s, the focus has been shifted on to consumer and availability of economic power to all. Over the last few years, there has been significant interest in opening the Electricity sector to competition and, by extension, interest in designing electricity markets to push the sector toward more efficient outcomes. Accordingly, the Electricity Act, 2003 (“the Act” or “EA 2003”) was enacted with effect from June 10, 2003 which requires the State Governments to initiate major changes in the structure and operations of the State power sector.
2. Objectives of the Electricity Act, 2003 includes Promote competition, Rationalization of tariff, Protect consumer’s interest. Promoting competition in electricity sector is one of the primary objectives of the Electricity Act, 2003.
3. The Electricity Act 2003 required restructuring of the State owned vertically integrated electricity boards (SEBs). Sections 131 to 134 mandate reorganization of the SEBs into functional entities and corporatization of the same.
4. The State of Assam has undertaken structural reforms in the state electricity sector in 2004 pursuant to the provisions of the Electricity Act 2003. At present, the Assam Power Generation Company Limited (APGCL), Assam Electricity Grid Corporation Limited (AEGCL) and Assam Power Distribution Company Limited (APDCL) are functioning as the State-owned generation, transmission and distribution utilities respectively. AEGCL is notified as the State Transmission Utility (STU). Its core business is to efficiently transport electrical power from electrical power bulk heads to the distribution company networks in the state of Assam.



5. The State Load Dispatch Centre (SLDC) is the apex body constituted vide Section 31 of the Indian Electricity Act - 2003 (Central Act No. 36 of 2003) and complies with the directions stipulated in Section 33 to ensure integrated operation of the power system in the state of Assam. SLDC, ASSAM was established in the year 1983 is located at Kahilipara, Guwahati. SLDC, Assam is presently being operated by the state transmission utility of Assam i.e. Assam Electricity Grid Corporation Ltd. (AEGCL).

1.2 Constitution of the Commission

The Assam Electricity Regulatory Commission (hereinafter referred to as the AERC or the Commission) was established under the Electricity Regulatory Commissions Act, 1998 (14 of 1998) on February 28, 2001. The first proviso of Section 82(1) of the Electricity Act, 2003 (hereinafter referred as the Act or the EA, 2003) has ensured continuity of the Commission under the Electricity Act, 2003.

The Commission is mandated to exercise the powers and functions conferred under Section 181 of the Electricity Act, 2003 (36 of 2003) and to exercise the functions conferred on it under Section 61, 62 and 86 of the Act from June 10, 2003.

In accordance with the regulations 'AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021, (hereinafter to be referred as MYT Regulations 2021' issued by the AERC, AEGCL has to file Tariff Petition every year with the Commission, which includes statements containing calculation of the expected aggregate revenue from charges under its currently approved tariff and the expected cost of providing services i.e. Aggregate Revenue Requirement (ARR) during the Previous Year, Current Year and Ensuing Year & tariff proposals so as to fully cover the gap between the expected aggregate revenue at the prevalent tariff and the expected cost of services including schemes for reduction in loss levels and other efficiency gains to be achieved.

Accordingly, AEGCL had filed its petition for determination of Aggregate Revenue Requirement (ARR) for FY 2020-21 under section 61, 62 & 64 of the Electricity Act, 2003. before the Commission on 30th November 2021, in accordance with MYT Regulations of AERC. After carrying out the due process of technical validation & arranging hearing the objections of various stake holders, AERC has issued an order on 21st March, 2022 wherein certain directives were issued to AEGCL in relation with carrying out energy audit which are reproduced as below:

"Directive 2 – Energy Audit and Implementation of SAMAST

The Commission directs AEGCL to carry out the Energy Audit every year and submit the report based on the metered energy at different interconnection points, including the status of metering, functional



meters, etc. This Report, with details of Transmission Losses, should be submitted along with the next Tariff Petition. AEGCL is directed to earnestly pursue the implementation of SAMAST.”

In response to the directives of AERC, AEGCL has decided to get the preliminary energy audit done of the transmission network to quantify the losses & to identify the saving potential out of these losses.

1.3 AEGCL Asset details

As on FY 2021-22, AEGCL has 5809.65 Ckt km line length & 69 nos. of Substations. AEGCL has commissioned 72.20 km in FY 2021-22 and many projects are in pipeline which will be commissioned during FY 2022-23 and FY 2023-24 to meet upcoming load development & give load relief to the network of AEGCL.

The electric supply from AEGCL to APDCL is transferred through 400 kV, 220 kV, 132 kV and 66 kV transmission line network with transformation capacity of 7523.5 MVA. Details of AEGCL transmission line length and nos. of substations for FY 2020-21 and FY 2021-22 are mentioned below:

Table 1: Transmission Line Length (ckt km) of AEGCL

S. No	Voltage Level	2021-22	2020-21
1	400 kV	7.20	7.20
2	220 kV	2048.50	2048.05
3	132 kV	3140.95	3069.19
4	66 kV	613.00	613.00
	Total	5809.65	5737.45

Table 2: No of Grid Substations of AEGCL

S. No	Voltage Level	2021-22	2020-21
1	400/220/132/33 kV	1	1
2	220/132 kV	1	1
3	220/132/66/33 kV	1	1
4	220/132/33 kV	9	9
5	220/33 kV	1	1
6	132/66/33 kV	1	1
7	132/33 kV	54	52
8	132/11 kV	1	1
	Total	69	67



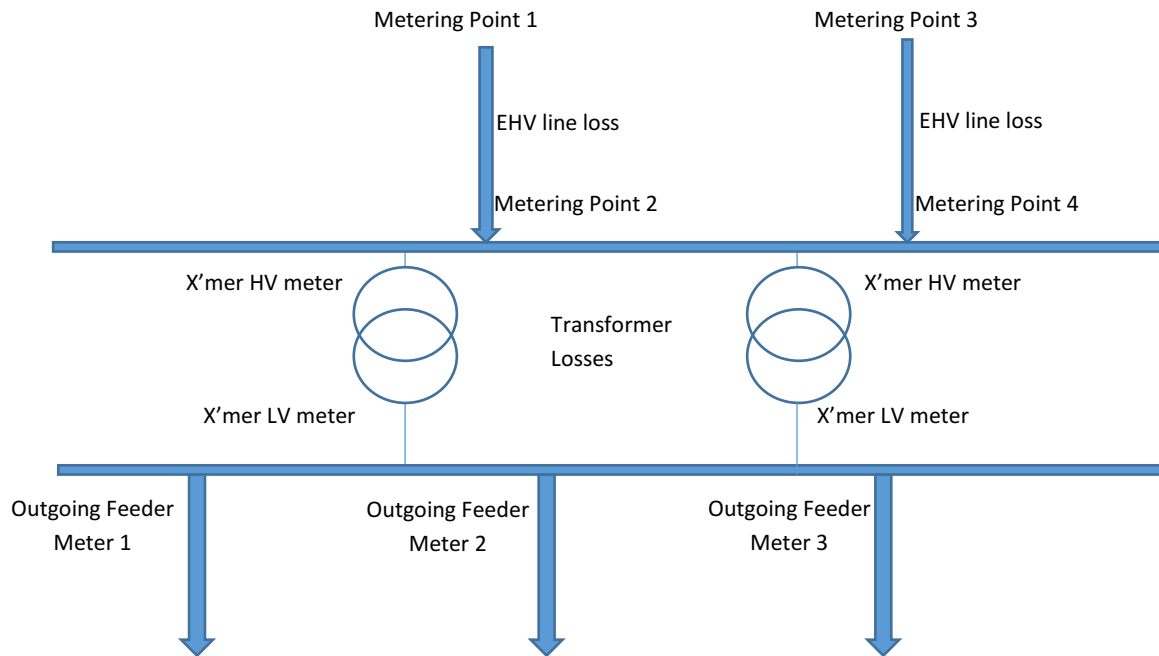
2 OBJECTIVE : ENERGY AUDIT

- 2.1.1 Energy Audit is the key to systematic approach for decision making in energy management. It is an effective tool to balance the total energy inputs with its outflows in various energy streams.
- 2.1.2 The energy audit exercise of transmission utility involves the energy accounting followed by the analysis of energy flow data for determination of losses at various steps in transmission. Since the ultimate burden of these losses has to be borne by the honest consumers in terms of higher tariff rates, the reduction in losses would also be beneficial in the interests of the consumers. Hence in the present era of competition the transmission utility having minimum losses has an edge over the competitors due to better profitability & economical rates.
- 2.1.3 Energy Audit helps in establishing the energy input and quantum consumed by/billed to various categories of consumers, identifying high loss areas, and evolving strategies and action plans for reduction of losses. The technical losses are inherent features of the transmission business such as load losses in transformers, losses in conductors of overhead lines or underground cables, dielectric losses in capacitors, cables etc. These losses cannot be eliminated but can be reduced by devising proper technical specification while procuring transformers, overhead conductors, capacitors, meters etc., devising & adopting strict testing plans while accepting the material, correct installation & regular maintenance.
- 2.1.4 The objective of the energy audit exercise is to identify the sources of technical losses, quantification of losses, suggest the corrective measures for minimizing technical losses, to work out the cost benefit analysis of corrective measures as suggested for computing the payback period of the investment involved. To achieve this component wise loss data needs to be calculated and subsequent energy analysis done to remedy the problem areas. Technical losses can be reduced through system improvement, e.g., by reducing overloading of lines and transformers, improvement of voltage profile, etc. But these measures require large capital investments.
- 2.1.5 There are many other reasons why energy auditing activity should be undertaken. Energy auditing will make it possible to compare energy use and cost among the various components of the power supply system and to monitor how energy use changes over time. This information will help those responsible for managing energy costs – maintenance staff, site managers, and others – to get feedback on how well their utility is performing. Energy problems and billing errors could be identified and tackled. By consistently tracking energy use, one can identify problems in the system. A sudden unexplained increase in energy consumption, for instance, would require investigation of the cause.



3 METHODOLOGY

- 3.1.1 The exercise of energy audit aims to balance the total energy inputs with its outflows in various energy streams. To achieve this, one must have energy meters at all incoming & outgoing energy streams viz. at all the generation injection points and at all the secondary of all the Grid substations.
- 3.1.2 The basic principle is to identify the Net energy inflow and Net energy outflow at every metering point in the transmission system. Since there is a central transmission grid over which the central power flows the injection losses where not already accounted for need to be incorporated. Although there is a loss in each of the component of power, the major contributors for transmission losses are the I^2R loss in the transmission lines along with the transformer losses at the grid substation.
- 3.1.3 Power transmission system is a dynamic system wherein the energy parameters are changing at every moment. Hence, in addition to installation of meters at all input & output nodes, the other requirement of establishing energy balance is to get simultaneous readings of all these meters in particular period i.e., at beginning of the period & at the end of the period. This function is better served if the SCADA system is installed to acquire the meter reading data continuously at regular interval or historical data in memory of electronic meters is downloaded using meter reading instrument.
- 3.1.4 Owing to dynamism of the transmission system, simultaneous meter readings of all meters on incoming and outgoing nodes is the primary requisite for energy audit exercise. At present, the meters of AEGCL are provided at:
- (i) Both ends of EHV lines
 - (ii) Both at HV & LV side of the transformer
 - (iii) At the point of outgoing lines.



- 3.1.5 However due to the lack of simultaneous meter readings and several inactive meters at some metering points, component wise accurate energy accounting within the transmission system is not possible. AEGCL is being included in the SAMAST scheme which will provide all interfacing meters as well as Intra-state meter. Implementation of the scheme is being monitored by NERPC. Once the metering facilities are in place, the actual energy drawn & sent out can be monitored & recorded.
- 3.1.6 Hence presently, the energy lost is calculated by computing the net energy balance of the transmission system which is the energy input into the transmission system (at the state transmission periphery) minus the energy exported to APDCL and open access consumers.
- 3.1.7 Monthly energy readings recorded (or projected for Q3 /Q4 of FY 2022 - 23) are used to calculate the net energy flow through the transmission system

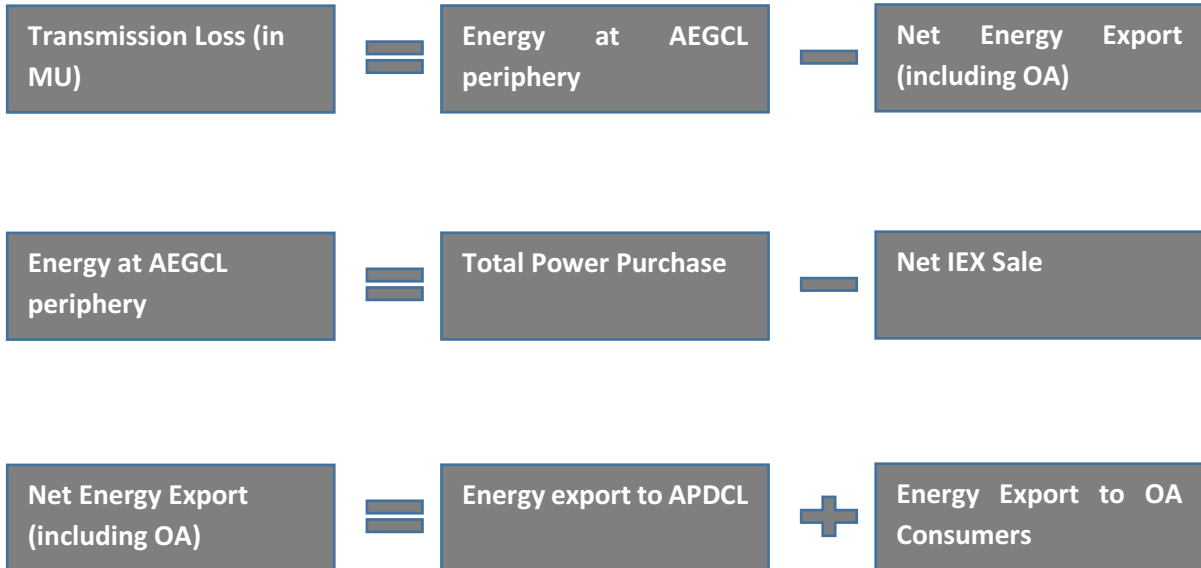
Energy Reading of (X) = (FR – IR) x MC

X = Energy reading for the month

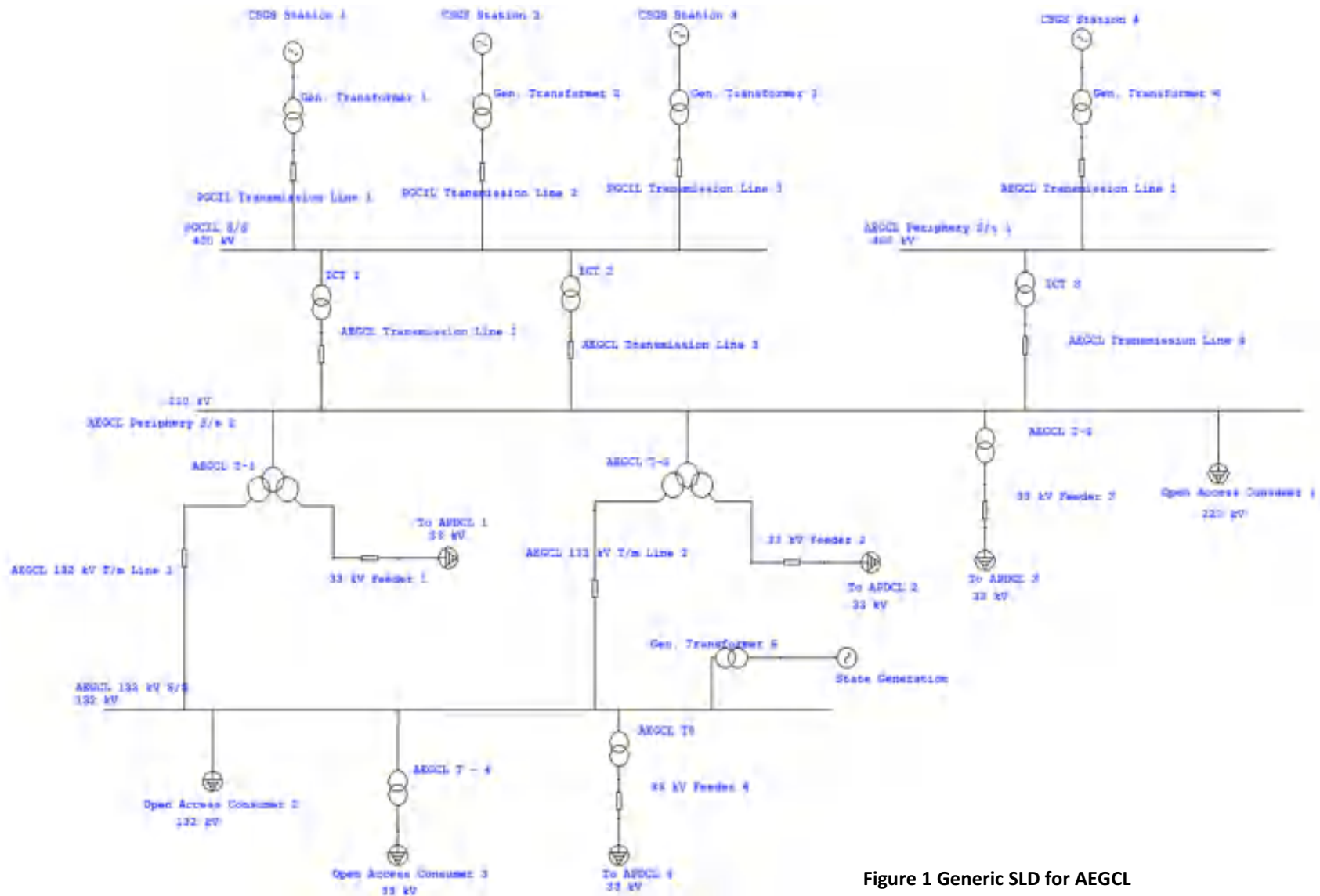
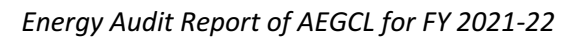
FR = Final meter reading of current month

IR = Initial meter reading of current month

MC = Meter constant



3.1.8 A generic simplified SLD for AEGCL transmission system is given below to understand the energy flow from different voltage levels to export of energy to APDCL and Open Access consumers.





4 ENERGY AUDIT FOR FY 2021-22

4.1 Transmission loss for FY 2021-22

Table 3 Transmission loss for FY 2021-22

PARTICULAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	Total MU
IMPORT DETAILS													
FROM CSGS-NER	434.68	481.25	574.99	631.40	620.23	632.65	565.25	544.36	540.07	452.86	475.51	524.85	6478.10
FROM CSGS-ER	102.18	129.97	161.41	174.92	167.48	162.81	134.64	115.79	98.87	91.14	76.84	94.44	1510.48
FROM LTA	17.48	29.56	36.45	43.20	36.51	26.59	19.49	16.78	19.99	18.03	16.26	21.03	301.38
FROM POWER EXCHANGE (IEX)/BLT	184.70	118.31	121.61	108.16	136.57	164.96	196.85	46.17	58.33	108.68	76.93	139.01	1460.29
FROM APGCL	107.76	130.46	163.07	189.81	196.24	182.62	215.85	181.10	174.81	143.80	162.21	148.69	1996.42
FROM IPP	5.51	5.42	5.78	6.40	6.49	7.19	8.16	8.64	7.96	8.67	10.33	12.12	92.68
THROUGH DSM	10.96	5.83	13.68	8.04	9.91	7.83	3.81	2.29	1.13	-0.91	0.31	2.36	65.25
FROM 132 kV BCPL (AT BEHIATING GSS)	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.00	0.01	0.16
FROM 33 kV BCPL (AT BORDUBI GSS)	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.02	0.01	0.00	0.15
FROM 33 kV RK NAGAR (DULLAVCHERRA GSS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
FROM 33 kV OIL (AT DHALIGAON GSS)	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
TOTAL IMPORT	863.29	900.87	1077.02	1161.95	1173.46	1184.65	1144.07	915.16	901.21	822.33	818.42	942.54	11904.94
(-) SALE THROUGH IEX	32.04	49.97	92.37	56.95	53.13	60.36	82.33	161.70	146.02	67.89	134.54	77.47	1014.76
NET IMPORT	831.25	850.90	984.65	1104.99	1120.33	1124.29	1061.74	753.46	755.19	754.44	683.88	865.06	10890.18
EXPORT DETAILS													
TO APDCL	781.79	798.71	929.19	1043.57	1067.43	1067.05	1008.10	703.62	700.16	698.15	640.48	824.42	10262.67
TO OPEN ACCESS CONSUMERS	22.37	24.27	22.46	23.96	14.57	18.44	17.96	25.94	30.63	32.05	21.61	11.69	265.96
TOTAL EXPORT (B)	804.16	822.98	951.65	1067.52	1082.00	1085.49	1026.06	729.56	730.79	730.21	662.09	836.11	10528.63
TRANSMISSION AND TRANSFORMATION (T&T) LOSS													
TRANSMISSION LOSS (IN MU)	27.09	27.92	32.99	37.47	38.33	38.80	35.68	23.89	24.40	24.24	21.79	28.95	361.55
TRANSMISSION LOSS (IN %)	3.26%	3.28%	3.35%	3.39%	3.42%	3.45%	3.36%	3.17%	3.23%	3.21%	3.19%	3.35%	3.32%



4.2 Energy Balance in FY 2021-22

The total energy input at AEGCL periphery is 10528.63 MU out of that, the estimated total energy transmitted is 10890.18 MU MU (energy sent out to APDCL periphery is 10262.67 MU and energy sent out to Open Access consumers is 265.96 MU) leaving behind the transmission losses of 361.55 MU with transmission loss of 3.32 %.

Table 4: Transmission Loss of AEGCL in FY 2021-22

Particulars	MU
Energy Injected (MU)	10890.18
Energy Sent Out to APDCL (MU)	10262.67
Energy Sent Out to OA Consumers (MU)	265.96
Total Energy Sent Out	10528.63
Transmission Loss (MU)	361.55
Transmission Loss (%)	3.32%

4.3 Monthly Energy Balance of AEGCL in FY 2021-22

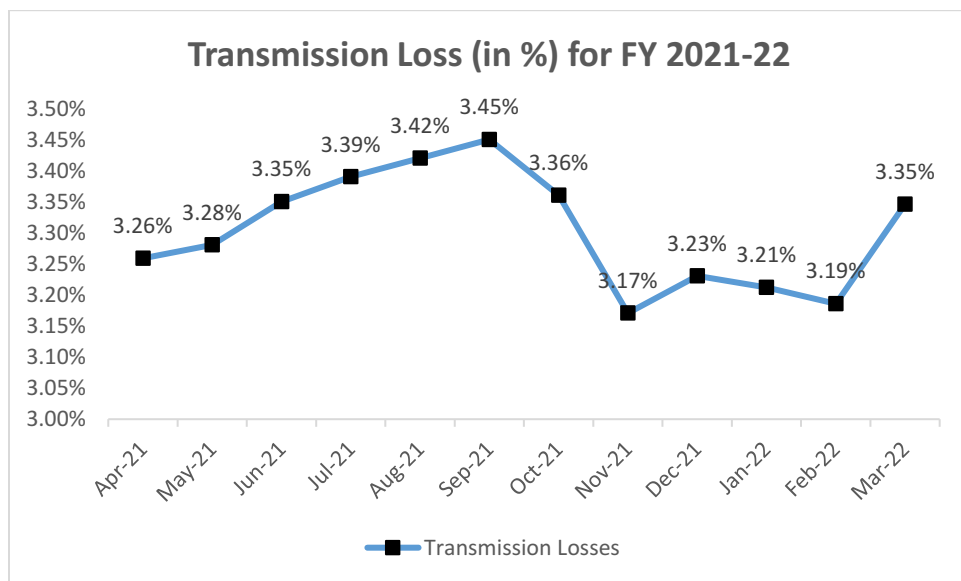
The monthly energy balance in respect of energy received at state periphery is established in the chart below:

Table 5: Monthly Energy Balance of AEGCL in FY 2021-22

FY 2021-2022	Total Power Injection to AEGCL Grid (MU)	Total Power Transmitted to Distribution Including Open Access (MU)	Total Transmission Loss (MU)	Total Transmission Loss in AEGCL Grid %
Apr-21	831.25	804.16	27.09	3.26%
May-21	850.90	822.98	27.92	3.28%
Jun-21	984.65	951.65	32.99	3.35%
Jul-21	1104.99	1067.52	37.47	3.39%
Aug-21	1120.33	1082.00	38.33	3.42%
Sep-21	1124.29	1085.49	38.80	3.45%
Oct-21	1061.74	1026.06	35.68	3.36%
Nov-21	753.46	729.56	23.89	3.17%
Dec-21	755.19	730.79	24.40	3.23%
Jan-22	754.44	730.21	24.24	3.21%
Feb-22	683.88	662.09	21.79	3.19%
Mar-22	865.06	836.11	28.95	3.35%
Total	10890.18	10528.63	361.55	3.32%



Figure 2 Transmission Loss of AEGCL in FY 2021-22



4.3.1.1.1 Voltage and Frequency excursions

Table 6 Voltage Excursion for FY 2021-22

S. No.	Name of Substation	Voltage Level (220kV/132kV/33kV)	Maximum Instant Voltage	Minimum Instant Voltage	Avg. Voltage	Voltage Variation Index
1.	AGIA	132	142	124	133	0.136363636
2.	AZARA	132	137	125	131	0.090909091
3.	APM	132	140.39	124.11	132.25	0.123333333
4.	BARNAGAR	132	140	113	126.5	0.204545455
5.	BILASHIPARA	132	140.71	113.25	126.98	0.208030303
6.	BEHIATING	132	139.6	126.9	133.25	0.096212121
7.	BCHARIALI	132	137.04	126.7	131.87	0.078333333
8.	BOKAKHAT	132	141	120	130.5	0.159090909
9.	BOKAJAN	132	137	121	129	0.121212121
10.	BOKO	132	135	126	130.5	0.068181818
11.	BORDUBI	132	140.07	128.9	134.485	0.084621212
12.	BTPS	132	141.05	125.99	133.52	0.114090909
13.	BAGHJAP	132	141.25	120.39	130.82	0.158030303
14.	CTPS	132	140.7	125.51	133.105	0.115075758
15.	CHAPAKHOWA	132	SUBSTATION CHARGED ON 30.8.2021			
16.	CAPITAL	132	140.2	126.8	133.5	0.101515152
17.	DEPOTA	132	136	126	131	0.075757576
18.	DHALIGAON	132	141.68	124.24	132.96	0.132121212



S. No.	Name of Substation	Voltage Level (220kV/132kV/33kV)	Maximum Instant Voltage	Minimum Instant Voltage	Avg. Voltage	Voltage Variation Index
19.	DHEMAJI	132	138.45	105.43	121.94	0.250151515
20.	DHEKIAJULEE	132	138.1	122.6	130.35	0.117424242
21.	DIBRUGARH	132	143	122	132.5	0.159090909
22.	DIPHU	132	139.1	119.5	129.3	0.148484848
23.	DULLABCHERRA	132	138.1	128	133.05	0.076515152
24.	GARGAON (NAZIRA)	132	143.3	125.1	134.2	0.137878788
25.	GAURIPUR	132	142.1	113.6	127.85	0.215909091
26.	GHORAMARI	132	138	126	132	0.090909091
27.	GOHPUR	132	138	121	129.5	0.128787879
28.	GOLAGHAT	132	141	121.15	131.075	0.150378788
29.	GOSSAIGAON	132	141.54	119.19	130.365	0.169318182
30.	HAFLONG	132	139.8	127.02	133.41	0.096818182
31.	HAILAKANDI	132	139.32	127.3	133.31	0.091060606
32.	JAWAHARNAGAR	220	231	213	222	0.081818182
33.	JORHAT	132	138	122	130	0.121212121
34.	KAHILIPARA	132	139.6	127.2	133.4	0.093939394
35.	KAMAKHYA	132	140.13	125.43	132.78	0.111363636
36.	KAMALPUR	132	140	112.2	126.1	0.210606061
37.	KOKRAJHAR	132	140.75	123.6	132.175	0.129924242
38.	KHALOIGAON	132	138.6	125	131.8	0.103030303
39.	KARIMGANJ	132	132	134.5	133.25	-0.018939394
40.	LEDO	132	140.9	125.2	133.05	0.118939394
41.	LAKWA TNT	132	GSS HANDED OVER TO AEGCL ON 23.3.2022			
42.	MATIA	132	139	126	132.5	0.098484848
43.	MIRZA	132	135.3	129	132.15	0.047727273
44.	MAJULI	132	138	111	124.5	0.204545455
45.	MARIANI	132	139	127	133	0.090909091
46.	MORAN	132	141.04	126.58	133.81	0.109545455
47.	NALKATA	132	137	115	126	0.166666667
48.	NALBARI	132	138	112	125	0.196969697
49.	NARENGI	132	140.17	118.58	129.375	0.163560606
50.	NAMRUP ThT	132	139	131	135	0.060606061
51.	PAILAPOOL	132	136.2	130.1	133.15	0.046212121
52.	PANCHGRAM	132	139	129	134	0.075757576
53.	PANISOKUWA	132	141.45	121.95	131.7	0.147727273
54.	RANGIA	132	138	120	129	0.136363636
55.	ROWTA	132	136.71	118.45	127.58	0.138333333
56.	RUPAI	132	139	124	131.5	0.113636364
57.	SAMAGURI	132	137	127	132	0.075757576
58.	SARUSAJAI	132	141	127	134	0.106060606
59.	SISHUGRAM	132	138	123	130.5	0.113636364
60.	SANKARDEVNAGAR	132	139.9	122.9	131.4	0.128787879
61.	SONABIL	220	230.75	215.25	223	0.070454545
62.	SIBSAGAR	132	140.47	118.12	129.295	0.169318182
63.	SIPAJHAR	132	136.9	116.8	126.85	0.152272727
64.	SONARI	132	138.5	131.4	134.95	0.053787879



S. No.	Name of Substation	Voltage Level (220kV/132kV/33kV)	Maximum Instant Voltage	Minimum Instant Voltage	Avg. Voltage	Voltage Variation Index
65.	SRIKONA	132	141.1	130.6	135.85	0.079545455
66.	SONAPUR	132	140	123	131.5	0.128787879
67.	TINSUKIA	132	139	129	134	0.075757576
68.	TEOK	132	141.19	121.8	131.495	0.146893939
69.	UMRANGSHU	132	141.73	126.35	134.04	0.116515152

- Maximum Frequency recorded: 50.34 Hz
- Minimum Frequency recorded: 49.50 Hz
- Average frequency: 49.92 Hz



5 ENERGY AUDIT OF FY 2022 - 23

5.1 Energy Balance in FY 2022-23

The energy injected and transmitted at transmission grid in FY 2022-23 is based on 6 (six) months actual and 6 (six) months projection. Projection has been computed based on historical information. The total energy input at AEGCL periphery is 11922.38 MU out of that, the estimated total energy transmitted is 11526.56 MU (energy sent out to APDCL periphery is 11342.25 MU and energy sent out to Open Access consumers is 184.31 MU) leaving behind the transmission losses of 395.82 MU with transmission loss of 3.32 %

Table 7: Transmission Loss of AEGCL in FY 2022-23

Sl. No.	Particulars	FY -2022-23		
		H1 (Actual)	H2 (Estimated)	Total (Estimated)
1	Energy Injected (MU)	6451.19	5471.19	11922.38
2	Energy sent out to APDCL (MU)	6172.36	5169.89	11342.25
3	Energy sent out to OA Consumers (MU)	64.66	119.66	184.31
4	Total Energy Sent out (MU)	6237.01	5289.55	11526.56
5	Transmission Loss (MU)	214.18	181.64	395.82
6	Transmission Loss (%)	3.32%	3.32%	3.32%



6 ANALYSIS AND CONCLUSION

- 6.1.1 Since the component wise metering data is not available in real time, hence an effective energy auditing exercise cannot be conducted. In the absence of the same, the total energy inflow and outflow through the transmission network with transmission loss calculated on the same basis.
- 6.1.2 The actual transmission loss for AEGCL for FY 2021-22 and provisional transmission loss for FY 2022-23 comes out to be 3.32%.

6.2 Transmission Loss Scenario:

- a) The transmission losses for FY 2021-22 were at 3.32%. The transmission loss for H1 of FY 2022-23 has also been recorded as 3.32%, similarly H2 for the year i.e., starting from October to March is relatively low demand season of the year. This also means that reactive energy demand is also less than what normally prevails from the month of April to September. It is to be seen that low voltage scenario is prominent from the months of June to September/October during the year, and high transmission losses reflects low voltages at the nodes unless capacitive compensation is provided at this node or at the down-stream distribution substations.
- b) Radial feeding of Load at many of the substations in AEGCL grid has also contributed to this scenario of low bus voltage at these grid substations. Necessity for such radial feeding of the load is primarily on account of the following factors:
- a. In the absence of sufficient redundancy, some GSS like Rowta, Sipajhar, Rangia, Gauripur, Barnagar, sibsagar, Nalbari are fed in radial mode as a part of the plan to achieve system security in the grid.
 - b. Substations like Dhemaji is a single line fed substation and downstream network of 33kV stretches beyond 80 Kms. Additional transmission corridors are planned besides the proposal for establishment of new GSS to substantially reduce the length of 33kV distribution feeders.
- c) AEGCL has endeavored that maximum distance between the grid substation should be brought down to 40/50 kms or below, so that the GSS is within the reach of a maximum 20/25 kms from distribution substations.
- d) Till the commissioning of the ongoing transmission projects, reactive compensation preferably at the receiving end of distribution substations is the only way out to arrest low voltages at these nodes, and to reduce the transmission losses.



- e) Replacement of old conductors of the line along with the phasing out of old transformers will also contribute towards attaining low transmission losses. Considering all the above reasons, it is expected that the transmission losses for the H2 period shall be lesser than H1. However, considering the fact there would be further release of Industrial & Commercial load by APDCL at many of its substations, we expect that transmission losses may hover around at the present level of 3.32%.

6.3 SAMAST

6.3.1 SAMAST (Scheduling, Accounting, metering and Settlement of Transactions in Electricity) scheme is a Gol project which aims to implement a robust, scalable and transparent framework of scheduling, metering, accounting and settlement of energy transactions at intra-state as well as interstate level in India.

6.3.2 The project scope shall consist of the following:

- a) Supply and installation of the ABT Meters with TTB mounted in the meter box, Laying and termination of control cables at primary Equipment and Meter Box.
- b) Supply and installation of DCU (Data Concentrator Units) mounted in the suitable mounting panel completely wired.
- c) Supply and installation of Communication hardware such as modems, communication front end servers, routers etc. for implementation of Wireless and Leased Network access to service Provider Networks.
- d) Supply and installation of IT Infrastructure consisting of database Servers, Application Servers, Web servers, SAN Storage System, Workstations, printers, LAN with accessories, communication cables etc.
- e) Supply and installation of the system software i.e., operating systems and Application Software consisting of RDBMS, Web Service, Unified Threat Management System, and functional software for meeting the functional requirement of the specification.
- f) The entity creations in the application software module, migration of existing data required to fully operationalize the system.
- g) Communication system i.e., wireless and Leased Networks from the Service Providers. The connections shall be taken during project implementation, warranty/guarantee and maintenance period.
- h) Handholding and training of the personnel during the standard warranty/guarantee period of 1 year after go-live of the project.



- i) The maintenance of the complete system after completion of standard warranty/guarantee period including periodic and breakdown maintenance, providing and configuration of software up-grade/patches for applications software, addition of new locations/meters during this period, manpower assistance for the co-ordination of maintenance work and generation of reports at Data/control centre at Guwahati.
- j) As the meters would be of 0.2 class accuracy, commensurate CT/PT would be desirable to have correct reading from the Meters. In some of the locations, CT/PT are of much inferior class and need to be replaced. Requirement of CT/PT has also been worked out accordingly.
- k) As per recommendation of FOR Technical Committee meeting held at Shillong on 16.4.2018, the ABT meter requirement was scrutinized by the SAMAST group and asked to reduce the meter requirement by excluding all 33 KV feeders & all ISTS lines in this project.

6.4 Analysis of Transmission Losses

- 6.4.1 Like all other power systems, no matter how carefully the system is designed, losses are present and must be modeled before an accurate representation of the system response can be calculated. Although various types of losses are present in transmission line, the major losses can be attributed to Transmission line losses and Transformer losses.

6.5 Line losses

- 6.5.1 The primary source of losses incurred in a transmission system is in the resistance of the conductors. For a certain section of a line, the power dissipated in the form of useless heat as the current attempts to overcome the ohmic resistance of the line and is directly proportional to the square of the rms current traveling through the line.
- 6.5.2 The resistance in turn is proportional to length of conductor & resistivity & inversely proportional to cross section of conductor. Also, the current in transmission line is inversely proportional to transmission voltage. a small decrease in voltage can result in a significantly high increase in loss.

6.6 Transformer Losses

- 6.6.1 Transformer losses can be categorized as:
- Copper losses: Copper loss or I^2R loss occurs because of heat dissipation due to current passing through the windings of the transformer and the internal resistance offered by the windings. The copper loss is variable loss and depend upon the variation in the current due to change in load.
 - Iron Losses: Iron loss occurs in the core of the transformer and depends upon the magnetic properties of the core material. Iron loss is constant as it does not change with the load. The technical loss in transformers, both copper and iron loss, is calculated based on the number of



hours the said transformer were in service, peak load, power factor, number, and capacity of the transformer.

Total iron loss (kWh) = $I \times N \times t / 1000$

Total copper loss (kWh) = $C \times N \times (DTL)^2 \times LLF \times t / 1000$

Here,

I = Rated Iron loss of the transformer

C = Rated Copper loss of the transformer

N = Number of transformers connected to the feeder

DTL = Loading on the transformer calculated as: Peak load (MVA)/Total connected load (MVA)

t = Number of hours the transformer was working in the year

LLF = Loss load factor

6.7 Potential Methods of reducing Transmission loss

a) Reconductoring of Transmission line

The old conductors and jumpers of transmission lines in Assam needs to be replaced wherever necessary. AAAC, HTLS conductor has better corrosion resistance & better strength to weight ratio and are being used at many of the transmission projects in AEGCL.

b) Conversion of single circuit feeders to Double circuit feeders

Existing single circuit needs to be converted into double circuit. The feasibility study shall be carried out considering the tower design, right of way, clearances, sag etc. Moreover, the suitability of tower height for requisite clearances, sag, arm length, wind pressure, span, right of way as well as capital expenditure & its viability needs to be checked in detail.

c) Improvement of Power factor

The transmission lines have to wheel active as well as reactive power. The reactive current causes additional losses in transmission lines & transformers. Due to drawl of reactive power causes decrease in the power factor. The power factor in case of all transformers in substations is found to be in range of 0.94 to 0.98.

Due to low power factor the transmission system has to carry the load of reactive power. If the reactive power is compensated locally at sub stations by installing capacitors of requisite ratings, the upstream network will be relieved by reactive current.



The improvement in power factor would also result in reduction in instantaneous demand relieving the load on upstream transmission grid as well as generating system causing surplus energy out of predefined allocation. The reduction in demand will result in reduction in demand charges.

- d) **Replacing old equipment:** One way to reduce losses is to replace older equipment. In very high usage regions of the network, installing replacement cables with a higher power rating can greatly reduce losses. When replacing power cables, a careful load analysis to anticipate load on the cable is necessary to determine which cable is most efficient.
 - e) **Right-sizing Transformers:** Transformers operate most efficiently when they are at 80-100% of maximum capacity. Underloaded transformers are inefficient due to core losses. If some transformers are frequently underloaded, it may be possible to strategically shut down certain transformers or install smaller transformers appropriate for the load. If transformers are frequently overloaded, it might be safer and more efficient to install larger transformers or rebalance the load such that the transformers are under capacity.
 - f) **Using capacitor banks to decrease the reactive load drawl from GSS:** The two components of apparent load on a system are real load, which performs work, and reactive load, which is needed to magnetize an object such as a transformer core. By installing or adjusting capacitor banks, the percentage of reactive load on the system can be decreased, reducing losses of real power.
 - g) **Voltage optimization:** By carefully re-adjusting voltage levels in a network, it may be possible to reduce the current flow in parts of the network, decreasing the total resistive loss in the system.
- 6.7.1 Identifying the causes of loss on a network and determining the best method for reducing loss can be challenging, but recent advances in smart meter infrastructure and machine learning can help substantially. The increased temporal and spatial data resolution provided by smart grid technology can be used to better understand loss, sources of loss, and the evolution of loss over time. Once a detailed map of system losses is determined, a cost-effective method for reducing losses is much easier to develop.

Annexure-IV
Revised Capital Investment Plan

ANNEXURE A – REVISED CAPITAL INVESTMENT PLAN OF AEGCL FOR FY 2021-22 TO FY 2023-24

The scheme wise projects are detailed with capital expenditure, capitalisation, mode of funding and elaborating the requirement of project. The summary of scheme wise investments and its capitalisation is summarised below:

Scheme Wise Capital Expenditure for FY 2021-22 TO FY 2023-24

(Rs. Crore)			
Scheme Name	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Projected
AIIB	111.05	173.61	491.81
ADB	1.57	1.00	-
NERPSIP	-	-	-
Annual Plan/SOPD	18.53	3.98	4.00
PSDF	2.15	13.00	16.07
TDF	21.17	22.65	-
Deposit work	1.05	9.91	115.43
NEC	0.00	0.00	0.00
NLCPR	0.27	0.00	0.00
AIIFA	19.17	11.53	20.21
AIIMS	-	8.27	33.69
Internal Accrual Equity	2.38	5.04	-
TOTAL	177.34	248.99	681.21

Scheme Wise Capitalisation for FY 2021-22 TO FY 2023-24

(Rs. Crore)			
Scheme Name	FY 2021-22 Actual	FY 2022-23 Estimated	FY 2023-24 Projected
AIIB	6.83	2.89	-
ADB	44.23	29.37	-
NERPSIP	-	-	689.76
Annual Plan/SOPD	23.95	9.65	1.39
PSDF	15.02	16.70	20.15
TDF	21.04	46.73	121.70
Deposit Works	17.76	32.33	12.39
NEC	8.78	0.00	0.00
NLCPR	0.46	0.00	0.00
AIIFA	21.81	16.00	37.03
AIIMS	-	-	42.02
Internal Accrual Equity	14.32	7.42	-
TOTAL	174.20	161.09	924.43

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1. Asian Infrastructure Investment Bank (AIIB) Scheme

The Government of India has already planned to make power available for all for 24x7. To meet such demands, the following works are proposed by AEGCL to be executed under **Assam Intra State Transmission System Enhancement Project** with financial assistance from AIIB.

The Project was initially posed by MoF, DEA, GOI to ADB vide letter No. 2/8/2018-ADB.II dated 20.12.2018. Later it was transferred by DEA from ADB to AIIB vide letter No. 2/8/2018-ADB.II dated 05.04.2019.

Delay of Project Approval process:

AEGCL has proposed the project in the year 2016, however, the proposal had to undergo different procedures for approval from various agencies/departments/line ministries etc, for which there occurred delays in the loan signing procedure and subsequently commencement of the project.

It may be mentioned herein that after receiving all the approvals, DEA, Govt. of India has posed the proposal to funding agency ADB on 12th of Nov'18. However, ADB has sent their fact-finding mission only on 25th of March'2019 from which the project readiness activities were started as per the advice of ADB mission.

Again on 5th of April'19 that DEA transferred the proposal from ADB to AIIB. Following this, AIIB conducted its 1st consultation mission in June 2019 and apprised AEGCL about the criteria set by DEA in order to be eligible for loan signing and advised AEGCL to form a dedicated Project Team and commence the activities of project readiness.

Mobilization advance to the awarded successful contractors could not be paid due to fund constraint. Due to non-payment of mobilization advance, contract agreement with the EPCs could not be executed. Progress of implementation depends on disbursement (% Progress= Disbursement/Contract Value). However, physical progress comprising of tendering, drawing approval and preliminary activities is in progress.

As per the advice of AIIB, the whole project was split in two phases and the First Phase of the Project has been finalized with the scope of work based on the present availability of land for execution of the Project as per discussion with AIIB.

Present Status of Works:

Sl No	Description of work	Name of the TKC/Supplier	Date of Award	Scheduled date of completion	Status as on 22.11.2022
1	Construction of 220/33kV, 2X100 MVA GIS at two locations (Bihpuria & Jakhalabandha) and	M/s NECCON Power & Infra Limited	15.02.2021	22-12-2024	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on.

Sl No	Description of work	Name of the TKC/Supplier	Date of Award	Scheduled date of completion	Status as on 22.11.2022
	associated Transmission Lines (Package A)				3. civil works have initiated.
2	Construction of 220/33kV, 2X100 MVA GIS at two locations (Nagaon-2 & Chaygaon) and Associated Transmission Lines (Package-B)	Consortium Of M/S R.S. Infra Projects Pvt. Limited & M/S Siemens Limited	15.02.2021	02-02-2025	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. civil works have initiated.
3	Construction of 132/33kV, 2X50 MVA GIS at locations Burhigaon and associated Transmission Lines (Package C)	M/s Siddhartha Engineering Limited, JV with M/S New Modern Technomech Pvt. Limited (JV Partner)	18.02.2021	06-12-2024	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. Supply and civil works have initiated.
4	Construction of 220/132kV, 2X160 MVA; 132/33kV, 2X50 MVA GIS at location (Khumtai) and its associated lines and bay extension (Package-D)	M/s R. S. Infraprojects Pvt. Ltd. JV with M/s Parth Electricals & Engineering Pvt. Ltd.	02.12.2021	01-07-2025	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. Check survey of transmission line in progress.
5	Construction of 220/132kV, 2X160 MVA GIS at two location (Sankardevnagar & Agamoni) and its associated lines(Package-E)	M/s Godrej and M/s Boyce Mfg. Co Ltd.	04.10.2021	09-04-2025	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. Supply and civil works have initiated.
6	Construction of 132/33kV GIS Scheme Conversion from AIS at location (Gohpur) (Package-F)	M/s Sumaja Electro Infra Pvt. Ltd.	08.06.2022	Not yet effective	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on.
7	Construction of 400/220kV, 2X500 MVA; 220/132kV 1X160 MVA Rangia GIS and 132/33kV, 2X50 MVA Kumarikata AIS (Package-G)	-	Yet to be awarded	-	1. Master Plan preparation completed. 2. Route Survey completed. 3. Tender is in final stage of floating.
8	Construction of 400/220kV, 2X500 MVA GIS at Sonapur GIS and its associated	-	Yet to be awarded	-	1. Master Plan approval in process. 2. Route survey completed. 3. Forest Clearance under process.

Sl No	Description of work	Name of the TKC/Supplier	Date of Award	Scheduled date of completion	Status as on 22.11.2022
	lines and bay extension (Package-H)				
9	Augmentation of Existing Transformer Capacity at Narengi, Kahilipara, Rangia, Kukurmara and Boko Substations of Assam (Package I)	M/S Blue Star Limited	15.02.2021	06-12-2023	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. Supply and civil works have initiated.
10	Augmentation of Transformer Capacity at Barnagar, Gauripur, Panchgram and Agia Sub-stations (Package-J)	M/S Hi-Tech Corporation (Jv With M/S Tal)	15.02.2021	06-12-2023	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. Supply and Erection works have initiated.
11	Augmentation of Transformer Capacity at Moran, Dibrugarh, Depota, Golaghat & Sankardevnagar sub stations in Assam (Package K)	M/S Siddhartha Engineering Limited	18.02.2021	06-12-2023	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. Supply and Erection works have initiated.
12	Augmentation of Existing Transmission Lines Capacity (Three Lines) by High Temperature Low Sag (HTLS) Conductor (Package-L)	M/S APAR Industries Limited	15.02.2021	14-08-2023	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process completed. 3. Supply completed. 4. 95% of Erection works completed.
13	Augmentation of the communication backbone - Replacement of existing ground wire by OPGW (636 KM) (Package M)	M/s Sterlite Power Transmission Ltd.	15.06.2021	17-01-2025	1. Contract signed. 2. Civil and Electrical Design and Drawings review and approval process is going on. 3. Supply and Stringing works have initiated.
14	Procurement of Enterprise Resource Planing (ERP) (Package N)	M/s Yash Technologies Pvt. Ltd.	25.04.2022	11-11-2026	1. Inception report along with project charter and project plan submitted by EPC on 26/08/2022. 2. ERP license (Lot 1) delivered by EPC.
15	Selection of Project Management Consultancy(PMC) (Package O)	PT Feedback Infra Ltd, Indonesia JV with Jade Consult, Nepal and NIPSA, Spain	02.12.2020	02-12-2026	PMC is in service.

Summary of Capital Expenditure and Capitalisation of AIIB Projects for FY 2021-22 to FY 2023-24 is tabulated below:

SN	Particulars	Capital Expenditure		
		FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 220/33kV, 2X100MVA GIS at two locations (Bihpuria & Jakhalabandha) and associated lines-Pkg A			
	Bihpuria	0.00	9.41	28.73
	Jakhalabandha	0.00	4.85	24.25
2	Construction of 220/33kV, 2X100MVA GIS at two locations (Nagaon-2 & Chyagaon) and associated lines-Pkg-B			
	Nagaon	2.00	8.30	17.89
	Chaygaon	2.00	8.46	16.92
3	Construction of 132/33kV, 2X50 MVA GIS at location (Burhigaon) and its associated lines-Pkg-C	3.72	8.94	14.89
4	Construction of 220/132kV, 2X160 MVA; 132/33kV, 2X50 MVA GIS at location (Khumtai) and its associated lines and bay extension-Pkg-D	0.20	5.02	5.02
5	Construction of 220/132kV, 2X160 MVA GIS at two location Sankardevnagar & Agamoni) and its associated lines-Pkg-E			
	Sankardevnagar	8.48	7.54	2.82
	Agamoni	8.42	6.44	12.88
6	Construction of 132/33kV GIS Scheme Conversion from AIS at location (Gohpur)-Pkg-F	0.00	2.91	8.73
7	Construction of 400/220kV, 2X500 MVA GIS; 220/132kV 1X160 MVA GIS; 132/33kV, 2X50 MVA AIS (Kumarikata) at one location (Rangia) and its associated lines and bay extension, Pkg-G			
	Rangia	9.50	19.53	65.10
8	Construction of 400/220kV, 2X500 MVA GIS at location (Sonapur) and its associated lines and bay extension -Pkg-H	0.00	18.60	18.60
9	Augmentation of Transformation Capacity at five substations (Narengi, Kahilipara, Rangia, Kukumara& Boko)-Pkg-I			
	Nalbari	0.99	1.95	3.57
	Narengi	0.99	2.07	4.79
	Kahilipara	0.99	1.22	10.90
	Kukurmara	0.94	1.00	11.93
	Boko	0.94	1.00	12.33

SN	Particulars	Capital Expenditure		
		FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
	Rangia	0.94	1.10	7.79
10	Augmentation of Transformation Capacity at four substations (Barnagar, Panchgram, Agia&Gauripur)-Pkg-J			
	Barnagar	0.10	1.88	10.54
	Panchgram	0.82	0.97	4.67
	Gauripur	0.82	1.95	10.20
	Agia	0.82	0.78	14.09
	Hailakandi	0.82	0.97	4.67
11	Augmentation of Transformation Capacity at five substations (Dibrugarh, Depota, Golaghat, Sankardevnagar& Moran) Pkg-K			
	Dibrugarh	0.64	1.59	8.37
	Depota	0.59	0.80	3.92
	Golaghat	0.59	1.69	8.99
	Sarusajai	0.59	0.79	3.91
	Moran	0.59	1.69	8.99
	Rowta	0.59	0.79	3.91
	Samaguri	0.59	0.80	3.92
12	Augmentation of Transmission Line Capacity (Three Lines) (HTLS) Pkg-L			
	132kV BTPS (Salakati)-Dhaligaon) D/C (Panther Equivalent)	18.63	2.00	10.14
	132kV Gossaigaon-Gauripur S/C (Panther Equivalent)	26.70	3.00	10.19
	220kV Kukumara-Sarusajai D/C (Zebra Equivalent)	7.00	8.00	38.63
13	Augmentation of the communication backbone - Replacement of existing ground wire by OPGW (615 km)	3.48	5.39	39.59
14	Project Management Consultant (PMC) services	5.38	6.00	5.87
15	ERP	0.45	1.85	3.69
16	220/33kV, 2X100 MVA Boragaon GIS with Associated Line	0.00	2.04	5.09
17	132/33kV, 2X50 MVA Lumding GIS with Associated Line	0.10	1.98	4.96
18	132/33kV, 2X50 MVA Morigaon AIS with Associated Line	0.00	1.28	1.28
19	132/33kV, 2X50 MVA Amayapur AIS with Associated Line	0.00	1.35	1.35
20	132/33kV, 2X50 MVA Ghungur (Udarband) GIS with Associated Line	0.00	1.07	1.07
21	132/33kV, 2X50 MVA Chabua GIS with Associated Line	0.00	1.11	1.11
22	132/33kV, 2X50 MVA Dhing AIS with Associated Line	0.00	1.28	1.28

SN	Particulars	Capital Expenditure		
		FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
23	132/33kV, 2X50 MVA Dhupdhara AIS with Associated Line	0.00	1.35	1.35
24	132/33kV, 2X50 MVA Titabor GIS with Associated Line	1.59	1.71	1.71
25	132/33kV, 2X50 MVA Serfanguri AIS with Associated Line	0.00	1.25	1.25
26	220/132kV, 2X160 MVA Rowta GIS with Associated Line	0.00	3.96	3.96
27	220/33kV, 2X100 MVA Panjabari GIS with Associated Line	0.00	1.74	1.74
28	132/33kV, 2X50 MVA Agamoni AIS with Associated Line	0.00	1.30	1.30
29	132/33kV, 2X50 MVA Zoo Road GIS with Associated Line	0.05	2.91	2.91
	Total	111.05	173.61	491.81

Capitalisation of AIIB Scheme:

SN	Particulars	Capitalisation		
		FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Projected	Estimated
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 400/220kV, 2X500 MVA GIS; 220/132kV 1X160 MVA GIS; 132/33kV, 2X50 MVA AIS (Kumarikata) at one location (Rangia) and its associated lines and bay extension, Pkg-G			
	Rangia	6.83	2.89	-
	Total	6.83	2.89	-

Funding of AIIB Projects

Sr	Capital Expenditure	Funding Pattern	FY 2021-22	FY 2022-23	FY 2023-24
			Actual	Projected	Estimated
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	Counterpart Funding (GoA)	20%	22.21	34.72	98.36
	<i>Remaining Part</i>	80%	88.84	138.89	393.45
B	Grant (AIIB)	72%	79.96	125.00	354.10
C	Debt (AIIB)	8%	8.88	13.89	39.34
	Total		111.05	173.61	491.81

Sr	Capitalisation	Funding Pattern	FY 2021-22	FY 2022-23	FY 2023-24
			Actual	Projected	Estimated
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	Counterpart Funding (GoA)	20%	1.37	0.58	0.00
	<i>Remaining Part</i>	80%	5.46	2.31	0.00
B	Grant (AIIB)	72%	4.92	2.08	0.00
C	Debt (AIIB)	8%	0.55	0.23	0.00
	Total		6.83	2.89	0.00

2. Asian Development Bank (ADB)

1. Construction of 132KV DC Chandrapur - Sonapur and 132 KV DC Sonapur- Jagiroad (Baghjap) transmission line:

Forest Clearance is in progress. Colour SOI Toposheet map depicting 3 (three) alternate routes, duly signed and authenticated by Divisional Forest Officer, Kamrup East Division and justification report for 3 (three) alternate routes regarding diversion of 5.77 Hectare in Teteliguri Reserve Forest for the 132 kV D/C Sonapur Baghjap line has been submitted to Inspector General of Forest (C), Integrated Regional Office, Govt. of India, Ministry of Environment, Forest and Climate Change (MOEFCC) from Govt. of Assam, Environment & Forest Department.

Present Status of Works:

Sl. No	Project Name	Status	Start Date of Project	Original Date of Completion	Target Date of Completion	Reasons for delay in start/completion
1	132 kV DC Chandrapur-Sonapur and 132 Kv DC Sonapur-Jagiroad (Baghjaap) Transmission Line	1) Overall progress: 98.00% 2) All the foundation and erection works are completed except stringing of 3 kM which is under forest area.	Nov'11	Nov-13	Mar-23	Forest Clearance is in progress

Summary of Capital Expenditure and Capitalisation for FY 2021-22 to FY 2022-23 is tabulated below:

Sr	Capital Expenditure	Actual	Projected
		FY 2021-22	FY 2022-23
		(Rs. in Crs.)	(Rs. in Crs.)
1	132 kV DC Chandrapur-Sonapur and 132 Kv DC Sonapur-Jagiroad (Baghjaap) Transmission Line	1.57	1.00
	Total	1.57	1.00

Sr	Particulars	Actual Capitalisation	Projected Capitalisation
		FY 2021-22	FY 2022-23
		(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of various Transmission Line, Augmentation works, miscellaneous expenditure and associated activities like payment of imprest, repairing of quarters, construction of security barrack, etc were carried out under ADB funded schemes and ADB related Counterpart fund as per statement/ annexures received from field officials under whom works were executed	44.23	-
	Total	44.23	0.00

Funding of ADB Projects

Sr	Capital Expenditure	Funding Pattern	FY 2021-22	FY 2022-23
			Actual	Projected
			(Rs. in Crs.)	(Rs. in Crs.)
A	Counterpart Funding (GoA)	20%	0.31	0.20
	<i>Remaining Part</i>	80%	1.26	0.80
B	Grant (ADB)	72%	1.13	0.72
C	Debt (ADB)	8%	0.13	0.08
	Total		1.57	1.00

Sr	Capitalisation	Funding Pattern	FY 2021-22	FY 2022-23
			Actual	Projected
			(Rs. in Crs.)	(Rs. in Crs.)
A	Counterpart Funding (GoA)	20%	8.85	5.87
	<i>Remaining Part</i>	80%	35.38	23.50
B	Grant (ADB)	72%	31.85	21.15
C	Debt (ADB)	8%	3.54	2.35
	Total		44.23	29.37

3. Power System Development Fund (PSDF)

The proposal for State support to execute the project “Power System Development Fund” of the Govt. of India has been incorporated in the priority list of transmission & transformation projects of 2019-20. The grid disturbance on 30th & 31st July 2012 in most areas of India forced the M/o Power Govt of India to address the main causes for the incident. During the grid disturbance on 31st July 2012, Assam has suffered a loss of 706 MW of power.

After analysis, the M/o Power Govt of India comes out with a proposal for “Renovation & Up-gradation of the Protection Systems” of the national grid. All the State utilities and the central utilities were asked to submit project proposal for Renovation & Up-gradation of the Protection systems of their grid. Accordingly, the Assam State Electricity Grid Corporation Ltd (AEGCL) proposed and submitted a DPR to the Govt of India (GoI). The GoI has accorded sanctioned as grant under PSDF.

Status of ongoing Projects under PSDF

The capital expenditure of PSDF projects is expected to be completed by FY 2022-23, however, the capitalisation of major portion is expected to be accomplished by FY 2022-23.

Summary of PSDF Projects Capital Expenditure and Capitalisation is tabulated below:

SN	Capital Expenditure	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	R&U	1.65	10.00	15.02
B	R&U-BCU	0.50	3.00	1.05
	Total	2.15	13.00	16.07

SN	Capitalisation	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	R&U	10.02	12.00	16.89
B	R&U-BCU	5.00	4.70	3.26
	Total	15.02	16.70	20.15

Funding of PSDF Projects

SN	Capital Expenditure	Funding Pattern	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoI – PSDF	100%	2.15	13.00	16.07
	Total		2.15	13.00	16.07

SN	Capitalisation	Funding Pattern	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoI – PSDF	100%	15.02	16.70	20.15
	Total		15.02	16.70	20.15

4. Trade Development Fund (TDF)

1. Construction of 132/33 kV Barpeta substation with LILO from 132 kV Dhaligaon-Nalbari line on D/C Tower

The voltage profile of power in and, around Barpeta is poor because of feeding of power to the distribution network through long distance 33 kV lines. Barpeta and surrounding areas are suffering from severe load shedding for past several years and the situation is aggravating day by day.

To boost the quality of power, AEGCL proposed the construction of 132/33 kV Barpeta substation with 132 kV S/C line on D/C tower from LILO of 132kV Dhaligaon-Nalbari line. This project will help to meet the sharp increasing load demand of Barpeta and surrounding areas which will also improve the voltage profile, system stability, reliability & will reduce transmission loss. The project is completed and charged on 27.04.2022.

2. Construction of 132/33 kV Hatsingimari substation with 132 kV S/C Agia-Hatsingimari line on D/C Tower

The power feeding to the distribution network of South Salmara, Hatsingimari, Mankachar, etc areas has not been done from AEGCL grid network. As a result, power feeding is going on from 33/11 kV Garobadha substation of Meghalaya. The concerned areas remain under prolong load shedding everyday especially in pick hours because Meghalaya feed power to those distribution network after fulfilment of their own requirement. Further, there is no security of power feeding to the said areas from Meghalaya in near future.

Therefore, to meet the regular demand of power in the respective areas, AEGCL proposed the construction of the 132/33 kV Hatsingimari substation with 116 km of 132 kV S/C line on D/C tower from Agia.

This project will help to address the uncertainty of power supply and to remove load restriction in the concerned areas. It will also help to meet the increasing load demand of Hatsingimari and surrounding areas which will further help to improve voltage profile, the system stability and will reduce load shading substantially. The project is expected to be commission in FY 2022-23

3. Construction of 132 KV S/C line on D/C tower from Salakati to APM

To improve the system stability and to feed quality power to the distribution network via grid sub-stations at Dhaligaon, APM, and Nalbari, construction of 132 kV S/C BTPS-APM line on D/C tower is urgently required. This line is very much essential from the redundancy plan point of view, and it will give an alternative route of power feeding to the aforesaid sub-station. It will thus reduce probability of the systems instability of power feeding to the distribution network of concerned areas covering entire Chirang, Bongaigaon, Abhyapuri & Chapar area in particular.

Currently, Forest clearance is yet to be received at 2 locations under Aie Valley Forest Division and Stage I forest clearance received for 3 locations under Haltugaon Division.

Due to fund constraint progress has slowed down. Fund issue has been taken up with GoA and likely to be resolved soon.

Status of ongoing Projects:

Sl. No	Project Name	Status	Start Date of Project	Original Date of Completion	Target Date of Completion	Reasons for delay in start/completion
1	Construction of 132/33 KV Hatsingimari GSS	Around 90% of work completed	Oct, 2016	Mar, 2019	May, 2023	Due to fund constraint progress has slowed down. However, the issue is currently being resolved
2	132 KV S/C line on D/C tower from Agia to Hatsingimari	Around 95 % of work completed Total (Nos): 387 Stub Cons (Nos): 387 Erected (Nos): 386 Stringing: 105.4/108 km	Oct, 2014	Apr, 2016	Feb, 2023	Due to fund constraint progress has slowed down. ROW and Forest Clearance from Govt of Meghalaya. However, the issue is currently resolved
3	132 KV LILO to Barpeta from Dhaligaon-Nalbari line	Completed and charged on 27.04.2022	April, 2016	Apr, 2018	27.04.2022	-
4	132 /33 KV Barpeta GSS	Completed and charged on 27.04.2022	Feb, 2016	Feb, 2018	27.04.2022	-
5	132 KV S/C line on D/C tower from Salakati to APM	Around 76% of Work completed Total (Nos): 157 Stub Cons (Nos): 142 Erected (Nos): 122 Stringing: Nil	Feb, 2015	Aug, 2016	Feb, 2023	1. Forest clearance is yet to be received at 2 locations under Aie Valley Forest Division and 2. Stage I forest clearance received for 3 locations under Haltugaon Division. 3. Due to fund constraint progress has slowed down. Fund issue has

Sl. No	Project Name	Status	Start Date of Project	Original Date of Completion	Target Date of Completion	Reasons for delay in start/completion
						been taken up with GoA and and is currently being resolved

Summary of TDF Projects Capital Expenditure and Capitalisation is tabulated below:

SN	Capital Expenditure	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Hatsingimari GSS	1.55	2.885	-
2	Barpeta substation, 132/33kV, 2x25MVA	2.12	2.01	-
	SS Total	3.67	4.90	0.00
1	Construction of 132 KV S/C line on D/C tower from Salakati to APM	0.97	10.16	-
2	Construction of 132 KV LILLO from Dhaligaon – Nalbari line	7.92	1.66	-
3	Construction of 132 KV S/C line on D/C tower from Agia to Hatsingimari (Package_A&B)	8.61	5.94	-
	Trans. Lines Total	17.50	17.76	0.00
	Total (S/S and Trans. Line)	21.17	22.65	0.00

SN	Capitalisation	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Hatsingimari GSS	-	-	23.155
2	Barpeta substation, 132/33kV, 2x25MVA	-	23.88	-
	SS Total	21.04	23.88	23.155
1	Construction of 132 KV S/C line on D/C tower from Salakati to APM	-	-	30.85
2	Construction of 132 KV LILLO from Dhaligaon-Nalbari line	-	22.85	-
3	Construction of 132 KV S/C line on D/C tower from Agia to Hatsingimari (Package_A&B)	-	-	30.85
	Trans. Lines Total	0.00	22.85	98.54
	Total (S/S and Trans. Line)	21.04	46.73	121.70

Funding of TDF Projects

Sr	Capital Expenditure	Funding Pattern	FY 2021-22	FY 2022-23	FY 2023-24
			Actual	Estimated	Projected
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	21.17	22.65	-
	Total		21.17	22.65	0.00

Sr	Capital Expenditure	Funding Pattern	FY 2021-22	FY 2022-23	FY 2023-24
			Actual	Estimated	Projected
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	21.04	46.73	121.70
	Total		21.04	46.73	121.70

5. NERPSIP

GOI sanctioned “North Eastern Region Power System Improvement Project” (NERPSIP) on 01.12.2014 for six NER states (Assam, Meghalaya, Manipur, Tripura, Nagaland & Mizoram) for strengthening of Intra State Transmission and Distribution System. The Scheme is implemented as Central Sector Scheme through POWERGRID as per sanction of the President of India conveyed to the NERPSIP for six (6) states with completion schedule of 48 months from the date of release of 1st instalment of funds to PGCIL. The Implementation/Participation Agreement between Assam (AEGCL/APDCL) and PGCIL was signed on 29th May, 2015.

The project is funded 50% through World bank fund and 50% by GoI through MoP Budget. State Government shall reimburse all form of State level taxes, duties and levies. The Government of India (Ministry of Power) shall be the borrower of the Bank loan and the total loan (the Bank loan and GoI/MoP budgetary support) shall be made directly available by GoI to Implementing Agency, POWERGRID for phase wise implementation on behalf of AEGCL. The ownership of the assets lies with AEGCL and upon progressive commissioning, the project elements shall be taken over by AEGCL for operation and maintenance on their own at their own cost.

In the scope of NERPSIP-Assam, the following are being done by POWERGRID:

- (i) Eleven (11) nos. of new EHV Sub stations of which three (3) will be GIS and rest will be AIS.
- (ii) Augmentation of two (2) existing sub stations at Samaguri and Dhaligaon.
- (iii) The scheme also involves Turnkey Tower Package at various location.
- (iv) Procurement of 27 nos. of transformers.
- (v) Pile foundation work at 9 locations over River Brahmaputra
- (vi) Approximately 740 kms of OPGW including existing and new Transmission lines (216km).
- (vii) Capacity Building and Institutional Strengthening of Assam electricity transmission and distribution scenario has been taken up.

The latest report of ongoing works carried out under NERPSIP provided by PGCIL is provided as Annexure-I for your reference.

Summary of NERPSIP Projects Capitalisation is tabulated below:

SN	Package Name	FY 2022-23	FY 2023-24
		Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)
1	ASM-SS-01	-	66.25
2	ASM-SS-02	-	86.17
3	ASM-SS-03	-	46.12
4	ASM-SS-04	-	217.57
5	Tr-01	-	99.21
6	ASM P01	-	28.50
7	TW02	-	38.07
8	TW04	-	20.69
9	TW05	-	13.06

SN	Package Name	FY 2022-23	FY 2023-24
		Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)
10	TW-07	-	65.89
11	ASM OPGW01	-	8.23
	Total	0.00	689.76

Funding of NERPSIP Projects

Sr	Capitalisation	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			Actual	Estimated	Projected
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoI- Grant	50%	-	-	344.88
B	World Bank- Grant	50%	-	-	344.88
	Total		0.00	0.00	689.76

Kindly note that the ongoing projects were commenced in the previous/current years and thus the capital expenditure has been incurred directly by GOI. Hence, capital expenditure is not reflected in the account of AEGCL. However, the projects once capitalised, shall reflect capitalisation in account of AEGCL as the ownership of the assets lies with AEGCL and the project elements shall be taken over by AEGCL for operation and maintenance on their own at their own cost.

6. AIFA

The proposal for Construction of 132/33kV, 2x50 MVA Nathkuchi Substation and associated Transmission Lines has been approved by Govt. of Assam under the Assam Infrastructure Funding Authority "AIFA" vide Revised AA No. No. PEL.192/2017/103 dtd11.10.2019.

The 132/33 kV Nathkuchi substation will help to address the load demand at Pathsala Bhabanipur Harupather, Nathkuchi, KhudraBhaluki, Boroma and Mushalpur as there is a trend of increase in domestic, commercial and industrial loads. The project will further lead to:

- a) Increase in power transformation capacity and improvement in voltage profile of the grid system as well as power distribution network in and around Pathsala.
- b) Minimization of overloading condition of Nalbari and Barnagar Grid sub-stations. About 14MWs of Nalbari substation & 15 MWs of Barnagar load can be diverted to Nathkuchi new substation which will ease the overloading conditions of these substations.
- c) This new substation will ease severe load shedding scenario around the area.
- d) Increase in revenue through additional installed capacity.
- e) Enhanced power reliability & better customer service.

Turnkey Construction has been split into two parts, considering the nature of works, as follows:

- 1) Turnkey Construction of 2x50 MVA, 132/33 kV Nathkuchi Substation with associated Transmission Line (LILO of 132kV Transmission Line from Rangia GSS to Barnagar GSS at Nathkuchi). The expected date of completion is Mar'2023.
- 2) Supply and Erection of HTLS Conductors along with all accessories from 132 kV Rangia Substation to Nathkuchi Substation on turnkey basis. The work has completed in April' 2022.

Summary of AIFA Projects and Capitalisation is tabulated below:

Sr	Capital Expenditure	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Turnkey Construction of 2x50 MVA, 132/33 kV Nathkuchi Substation with associated Transmission Line (LILO of 132kV Transmission Line from Rangia GSS to Barnagar GSS at Nathkuchi)	19.17	11.53	20.21
	Total	19.17	11.53	20.21

Sr	Capitalisation	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Turnkey Construction of 2x50 MVA, 132/33 kV Nathkuchi Substation with associated Transmission Line (LILO of 132kV Transmission Line from Rangia GSS to Barnagar GSS at Nathkuchi)	21.81	16.00	37.03
	Total	21.81	16.00	37.03

Funding of AIFA Projects

Sr	Capital Expenditure	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			Actual	Estimated	Projected
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	19.17	11.53	20.21
	Total		19.17	11.53	20.21

Sr	Capitalisation	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			Actual	Estimated	Projected
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	21.81	16.00	37.03
	Total		21.81	16.00	37.03

7. AIIMS

In order to supply power to the upcoming AIIMS at CHANGSARI, Guwahati, AEGCL is undertaking the construction 1X25 MVA, 132/33KV substation at AIIMS campus along with associated transmission line.

The Health & Family Welfare Dept., Govt of Assam has approved the project and issued Administrative Approval vide letter no. AA/DME_2019-20(I)_309 dtd. 19.07.2019 for Rs. 4198.74 Lakhs.

Summary of AIIMS Projects and Capitalisation is tabulated below:

Sr	Capital Expenditure	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
	Package Name	(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	1x25 MVA, 132/33 kV AIIMS GSS, Changsari along with associated Line	-	8.27	33.69
	Total	0.00	8.27	33.69

Sr	Capitalisation	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
	Package Name	(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	1x25 MVA, 132/33 kV AIIMS GSS, Changsari along with associated Line	-	-	42.02
	Total	0.00	0.00	42.02

Funding of AIIMS Projects

Sr	Capital Expenditure	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	-	8.27	33.69
	Total		-	8.27	33.69

Sr	Capitalisation	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	-	-	42.02
	Total		-	-	42.02

8. Annual Plan/SOPD-G

1. **Augmentation of transformer capacity of 132/33 kV Nalbari sub-station from 1x40 MVA + 1x16 MVA to 1x50 MVA + 1x40 MVA**

As per Load flow Study, considering the sharply increasing load demand of 132/33 kV Nalbari sub-station, augmentation of transformer capacity of the sub-station was urgently required. Major part of the Nalbari district was already suffering from load shedding especially during peak load hours of summer season. Therefore, it was decided to augment existing transformer capacity of the 132/33 kV Nalbari sub-station in order to take care of present and future load growth.

2. **Augmentation of transformer capacity of 132/33 kV Khaloigaon sub-station from 2x25 MVA to 1x25 + 1x50 MVA**

As per last Load Flow Study, considering the sharply increasing load demand of 132/33 kV Khaloigaon sub-station, augmentation of transformer capacity of the sub-station was urgently required. Major part of the Nagaon district was already suffering from load shedding especially during peak Load hours of summer season. Therefore, it was decided to augment existing transformer capacity of the 132/33 kV Khaloigaon sub-station in order to take care of present and future Load growth.

3. **Construction of 220 kV D/C Sonabil- Biswanath Chariali line with 2 nos. of 220 kV line bay for Sonabil Sub-station**

This proposal would contribute to enhance the current power situation on the north bank of the Brahmaputra River as the system will be directly connected to the 220 KV thereby enhance the power scenario. Also, in turn enhancing commercial and trade activities in Upper Assam Region, hence improving the socio-economic scenario and directly benefiting residents/workers of the connected region.

4. **2nd Circuit Stringing of 132kv,41.923 KM Long Samaguri-Khhaloigaon (Nagaon) line on D/C tower of AEGCL. (41.923km long)**

The 220KV GSS Type-I Samaguri was connected to the 132 kV GSS Type-II Khhaloigaon through the 132 KV 41.923 KM Long Samaguri-Khhaloigaon (Nagaon) line S/C line on D/C tower. As this line was the only circuit linking power to both the substations without any redundancy, it was proposed to string a second circuit on the existing D/C tower so that the power supply from the substations will be more reliable in addition to the fulfilment of (n-1) contingency of CEA guidelines. The substations supply power to the connected region in major part of the Nagaon & Morigaon district which was already suffering from severe load shedding especially during peak Load hours of summer season. Thus, for reliability of power, stringing of second circuit between Samaguri-Khhaloigaon (Nagaon) was an essential requirement and have greatly impacted the beneficiaries.

5. Hotline stringing of 2nd circuit of 132kV Kukurmara (Mirza) – Azara transmission line

132/33 KV Azara substation is radially connected to 400/220/132/33 KV Kukurmara (Mirza) substation through the 132 KV Azara-Kukurmara (Mirza) S/C line on D/C tower, which was completed in December, 2019. As this line is the only circuit that feeds power to Azara substation without any redundancy, it was proposed to string a second circuit on the existing D/C tower so that the power supply from the Azara substation will be more reliable in addition to the fulfilment of (n-1) contingency of CEA guidelines. The 132/33 KV Azara substation supplies power to Palashbari, Mirza and vital areas of Airport and nearby. Thus, for reliability of power, stringing of second circuit between Kukurmara (Mirza)- Azara was an essential requirement and will have a great impact on the beneficiaries.

6. Construction of 01 no. of 132kV line bay at 132/33kV Azara substation along with associated PLCC work at 400/220/132/33 kV Kukurmara (Mirza)

132/33 KV Azara substation is radially connected to 400/220/132/33 KV Kukurmara (Mirza) substation through the 132 KV Azara-Kukurmara (Mirza) S/C line on D/C tower, which was completed in December, 2019. As this line is the only circuit that feeds power to Azara substation without any redundancy, it was proposed to string a second circuit on the existing D/C tower so that the power supply from the Azara substation will be more reliable in addition to the fulfilment of (n-1) contingency of CEA guidelines. The 132/33 KV Azara substation supplies power to Palashbari, Mirza and vital areas of Airport and nearby. Thus, for reliability of power, stringing of second circuit between Kukurmara (Mirza)- Azara was an essential requirement. Also, the envisaged work for constructing the second circuit will also require construction of one no. of 132 kV bay at Azara GSS. The bay at Kukurmara end is ready with all equipment installed. However, the PLCC equipment for the link at both ends is required.

7. Turnkey Construction of 2 (two) nos. of 132kV Line Bays including Supply of Bay Equipment and line bay materials and associated works etc. at Gohpur GSS, AEGCL

At present 132/33 kV Gohpur sub-station caters to 120-125 MW load to four nos. of districts viz. Lakhimpur, Dhemaaji, part of Biswanath and Majuli. Gohpur substation is fed from two transmission lines one from Biswanath Chariali (AEGCL) sub-station and another from Sonabil grid sub-station. Due to Increasing load demand at Gohpur sub-station, Gohpur was facing overloading problem. To resolve this problem there was need of another power flow route to feed additional power to Gohpur substation from Biswanath Chariali (800 kV HVDC PGCIL) sub-station.

Therefore, a transmission line from Biswanath Chariali (PGCIL) to Itanagar was being implemented as a part of NERSS-II by Power Grid Corporation of India Ltd. through TBCB. In the meeting of 6th standing committee on Power System Planning of North

Eastern Region (6th SCPSPNER) held on 03.10.2019, it was proposed to construct a LILO of Biswanath Chariali (PGCIL) -- Itanagar line at Gohpur substation in order to solve the power constraint issue at Gohpur sub-station and to reduce the power flow on the Biswanath Chariali (PG) – Pavoi (AEGCL) 132kV D/c line by 30 MW. The part of the line from Biswanath Chariali (PGCIL) to Gohpur has already been constructed. To terminate the LILO of Biswanath Chariali (PGCIL) -- Itanagar line at Gohpur substation, 2 nos. of bays were required to be constructed. However, during a meeting held on 10.08.2020, CEA directed AEGCL to take up the construction works for the two bays on an urgent basis. CEA further stated that the delay in construction of the bays shall result in PoC Charges, which will adversely impact the transmission tariff payable by Assam. Given the above, the construction of 2 nos. of bays at Gohpur (AEGCL) end was of utmost importance.

Summary of Annual Plan/SOPD-G Projects and Capitalisation is tabulated below:

Sr	Capital Expenditure	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
	Package Name	(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Augmentation of transformer capacity of 132/33 kV Nalbari sub-station from 1x40 MVA + 1x16 MVA to 1x50 MVA + 1x40 MVA	4.95	0.62	-
2	Augmentation of transformer capacity of 132/33 kV Khaloigaon sub-station from 2x25 MVA to 1x25 + 1x50 MVA	5.62	-	-
3	Construction of 220 kV D/C Sonabil - Biswanath Charali line with 2 nos. 220 KV line bay. (42.768 km long as per tower schedule)	5.72	-	4.00
4	2nd Circuit Stringing of 132kv, 41.923 KM Long Samaguri-Khalaigaon (Nagaon) line on D/C tower of AEGCL. (41.923km long)	0.18	0.88	-
5	Hotline stringing of 2nd circuit of 132kV Kukurmara(Mirza)-Azara transmission line	-	0.46	-
6	Construction of 01 no. of 132kV line bay at 132/33kV Azara substation along with associated PLCC work at 400/220/132/33 kV Kukurmara (Mirza) substation	-	1.39	-
7	Turnkey Construction of 2 (two) nos. of 132kV Line Bays including Supply of Bay Equipment and line	2.06	0.63	-

Sr	Capital Expenditure	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
	Package Name	(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
	bay materials and associated works etc. at Gohpur GSS, AEGCL			
	Total	18.53	3.98	4.00

Sr	Capitalisation	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
	Package Name	(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Augmentation of transformer capacity of 132/33 kV Nalbari sub-station from 1x40 MVA + 1x16 MVA to 1x50 MVA + 1x40 MVA	-	5.62	-
2	Augmentation of transformer capacity of 132/33 kV Khaloigaon sub-station from 2x25 MVA to 1x25 + 1x50 MVA	5.62	-	-
3	Construction of 220 kV D/C Sonabil – Biswanath Charali line with 2 nos. 220 KV line bay. (42.768 km long as per tower schedule)	12.25	-	-
4	2nd Circuit Stringing of 132kv, 41.923 KM Long Samaguri-Khalaigaon (Nagaon) line on D/C tower of AEGCL. (41.923km long)	6.08	0.88	-
5	Hotline stringing of 2nd circuit of 132kV Kukurmara (Mirza)-Azara transmission line	-	0.46	-
6	Construction of 01 no. of 132kV line bay at 132/33kV Azara substation along with associated PLCC work at 400/220/132/33 kV Kukurmara (Mirza) substation	-	-	1.39
7	Turnkey Construction of 2 (two) nos. of 132kV Line Bays including Supply of Bay Equipment and line bay materials and associated works etc. at Gohpur GSS, AEGCL	-	2.69	-
	Total	23.95	9.65	1.39

Funding of SOPD-G Projects

Sr	Capital Expenditure	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	18.53	3.98	4.00
	Total		18.53	3.98	4.00

Sr	Capitalisation	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA- Grant	100%	23.95	9.65	1.39
	Total		23.95	9.65	1.39

9. Deposit Works

1. Deposit Works Funded by NRL

Rapid expansion of the production capacity of the petroleum sector in Assam is expected to increase the load demand significantly. As the refineries gear up to start production of BS-VI petroleum products, it will increase their power demand. To meet up with the increased load demand of the Refineries in Assam several projects are being executed under deposit scheme.

1. Construction of 220kV LILO to NRL substation from Samaguri-Mariani-2 TL
2. Construction of 220kV LILO to Solar Generation Plant at Amguri from Mariani-Namrup TL
3. Construction of 132kV GIS bay at Narengi GSS

Summary of Capital Expenditure and Capitalisation is tabulated below

SN	Capital Expenditure	FY 2021-22	FY 2022-23
		Actual	Estimated
		(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 220kV LILO to NRL substation from Samaguri-Mariani-2	1.05	1.45
	Total	1.05	1.45

SN	Capitalisation	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. In Crs.)	(Rs. In Crs.)	(Rs. In Crs.)
1	Construction of 220kV LILO to NRL substation from Samaguri-Mariani-2	-	-	11.32
2	Construction of 220kV LILO to Solar Generation Plant at Amguri from Mariani-Namrup TL (Plant Capacity 70MW)	1.87	-	-
3	Construction of 132kV GIS bay at Narengi GSS	2.54	-	-
	Total	4.41	0.00	11.32

2. Deposit Scheme funded by Railways

Railway is executing electrification of railway network in Assam at a rapid pace through RVNL, RITES, IRCON, NF Constructions and CORE. These projects are being executed with a vision to reduce dependency on imported fossil fuel-based petroleum products. This will enable railway use greener power and reduce its carbon footprint. As a part of this ambitious project, AEGCL has been entrusted with construction of several 132kV transmission lines to the Railway Traction substation and terminal line bays at AEGCL end.

Summary of Capital Expenditure and Capitalisation is tabulated below:**A) Deposit Scheme funded by NFCN**

SN	Capital Expenditure	FY 2022-23	FY 2023-24
		Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 132kC S/C TL from Sonabil GSS to Balipara TSS	-	9.17
2	Construction of 132kC S/C TL from Rowta GSS to Udalguri TSS	-	8.32
3	Construction of 132kC S/C TL from Gohpur GSS to Gohpur TSS	-	9.36
4	Construction of 132kC S/C TL from Nalkata GSS to North lakhimpur TSS	-	7.60
5	Construction of 132kC S/C TL from Dhemaji GSS to Dhemaji TSS	-	5.16
6	Construction of 132kC S/C TL from Silapathar GSS to Laimekuri TSS	-	24.06
7	Construction of 132kC S/C TL from Jorhat west GSS to Barua Bamungaon TSS	-	9.87
	Total	0.00	73.54

B) Deposit Scheme funded by CORE

SN	Capital Expenditure	FY 2022-23	FY 2023-24
		Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 132 kV Bay at Agia GSS	1.43	-
2	Construction of 132 kV Bay at Boko GSS	1.43	-
3	Construction of 132 kV Bay at Baghjab GSS	1.43	-
4	Construction of 132 kV Bay at Shankardev nagar GSS	1.43	-
5	Construction 132kV TL from Agia GSS to Goalpara TSS	-	10.49
6	Construction 132kV TL from Boko GSS to Boko TSS	-	3.58
7	Construction 132kV TL from Baghjap GSS to Dharamtul TSS	-	11.27
8	Construction 132kV TL from Shankardev nagar GSS to Lanka TSS	-	10.91
9	Construction 132kV TL from Nagaon GSS to Bebejia TSS	-	5.62
	Total	5.71	41.88

SN	Capitalisation	FY 2023-24
		Estimated
		(Rs. in Crs.)
1	Construction of 132 kV Bay at Agia GSS	1.43
2	Construction of 132 kV Bay at Boko GSS	1.43
3	Construction of 132 kV Bay at Baghjab GSS	1.43
4	Construction of 132 kV Bay at Shankardev nagar GSS	1.43
	Total	5.71

C) Deposit Scheme funded by RVNL

SN	Capital Expenditure	FY 2022-23
		Projected
		(Rs. in Crs.)
1	Construction of 132kV TL from Joyma GSS to Gossaigaon TSS	0.12
	Total	0.12

SN	Capitalisation	FY 2021-22	FY 2022-23
		Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 132kV S/C Transmission Line on D/C towers from 132kV Nalbari GSS to Railway Traction substation at Nalbari	0.00	2.20
2	Construction of 132kV S/c Transmission Link from Nalbari TSS to Tower No.12 of 132kV Nalbari GSS- Nalbari TSS	13.10	0.00
3	Construction of 132kV TL from Dhaligaon GSS-New Bongaigaon TSS	0.00	8.48
4	Construction of 132kV TL from Joyma GSS to Gossaigaon TSS	0.00	12.45
	Total	13.10	23.12

3. Deposit Scheme funded by various entities

SN	Capital Expenditure	FY 2022-23
		Estimated
		(Rs. in Crs.)
1	Construction of 33kV Bay for Sualkuchi bay at 132kV Shisugram GSS	0.23
2	Construction of 33kV feeder bay for Bishnupur – Panchalli bay at Hatigarh(Dhemaji) GSS	0.00
3	Construction of 33kV Hojai bay feeder at Shankardev Nagar GSS	0.12
4	Construction of 33kV AAI bay at 132kV Azara GSS	0.34
5	Construction of 33kV bay at 400kV Kukurmara GSS	0.33
6	Construction of 33kV bay at 132kV Dhaligaon GSS	0.34

SN	Capital Expenditure	FY 2022-23
		Estimated
		(Rs. in Crs.)
7	Construction of 33kV bay equipment for 33/11 kV Karimganj (Subhashnagar) feeder bay to be constructed at Panchgarm GSS	0.10
8	Construction of North Lakhimpur Medical college Feeder bay at 132 kV Nalkata GSS	0.22
9	Turnkey Construction of 33 kV Feeder Bay for Assam Hills Medical College and Research Institute at 132 kV Diphu GSS	0.45
10	Turnkey Construction of 33 kV dedicated Feeder Bay at 132 kV Umrangso GSS for 2nd Lower Kopili HEP of APGCL	0.49
	Total	2.62

SN	Capitalisation	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected
		(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 33kV Bay for Sualkuchi bay at 132kV Shisugram GSS	-	0.62	-
2	Construction of 33kV feeder bay for Bishnupur - Panchallibay at Hatigarh(Dhemaji) GSS	0.25	-	-
3	Construction of 33kV Hojai bay feeder at Shankardev Nagar GSS	-	0.50	-
4	Construction of 33kV AAI bay at 132kV Azara GSS	-	0.47	-
5	Construction of 33kV bay at 400kV Kukurmara GSS	-	-	0.44
6	Construction of 33kV bay at 132kV Dhaligaon GSS	-	0.50	-
7	Construction of 33kV bay equipment for 33/11 kV Karimganj (Subhash Nagar) feeder bay to be constructed at Panchgarm GSS	-	0.47	-
8	Construction of North Lakhimpur Medical college Feeder bay at 132 kV Nalkata GSS	-	-	0.62
9	Turnkey Construction of 33 kV Feeder bay for Assam Hills Medical College and Research Institute at 132 kV Diphu GSS	-	0.45	-
10	Turnkey Construction of 33 kV dedicated Feeder Bay at 132 kV Umrangso GSS for 2nd Lower Kopili HEP of APGCL	-	0.49	-
	Total	0.25	3.49	1.07

Funding of Deposit works

Sr	Capital Expenditure	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA-Grant	100%	1.05	9.91	115.43
	Total		1.05	9.91	115.43

Sr	Capitalisation	Funding Pattern (%)	FY 2021-22	FY 2022-23	FY 2023-24
			(Rs. in Crs.)	(Rs. in Crs.)	(Rs. in Crs.)
A	GoA-Grant	100%	17.76	32.33	12.39
	Total		17.76	32.33	12.39

10.NLCPR

The entire lower South Bank of River Brahmaputra of Assam beyond Guwahati is fed from 220 kV Sarusajai and Boko by 33 kV network. With increasing load demand in the area covered by 33 kV substations, the existing system was considered inadequate. Therefore, to strengthen the entire transmission system in the south bank, AEGCL had proposed a 220/132 kV substation at Azara (Kukurmara) and a 132/33 kV substation at Azara with a single circuit LILLO of the 220 kV Agia-Sarusajai line and 132 kV S/C line to 132/33 kV Azara S/S. The project has been commissioned in Mar '2020, however, part capitalisation is expected to be completed after amendment of works orders.

Summary of NLCPR Projects and Capitalisation is tabulated below:

Sr	Particulars	Actual Capital Expenditure	Actual Capitalisation
		FY 2021-22	FY 2021-22
		(Rs. in Crs.)	(Rs. in Crs.)
A	Construction of 132/33 kV Azara sub-stations with 132 kV S/C lines on D/C tower from Kukurmara to Azara S/S	0.27	0.46
	Total	0.27	0.46

Funding of NLCPR Projects

Sr	Capital Expenditure	Funding Pattern	FY 2021-22
			(Rs. in Crs.)
A	GoA	100%	0.27
	Total	100%	0.27

Sr	Capitalisation	Funding Pattern	FY 2021-22
			(Rs. in Crs.)
A	GoA	100%	0.46
	Total	100%	0.46

11.NEC

With increasing load demand in the area covered by 33 kV substations, the existing system was considered inadequate. Therefore, to strengthen the entire transmission system, For augmentation of transformation capacity for meeting the increased load demand at 220kV Salakati GSS, 220/132kV, 160 MVA Transformer was purchased and commissioned on 10th July 2021.

132/33kV Umrngshu GSS was constructed under NEC further the associated civil works such as RE Quarters, Officers Hostel, Staff Hostel were constructed and capitalised on FY 2021-22. Also 3 No. of 33kV bays were constructed for meeting the augmented load demand where only civil works and testing commissioning were executed under NEC and other works arranged departmentally.

Summary of NEC Projects Capex and Capitalisation is tabulated below:

Sr	Particulars	Actual Capital Expenditure	Actual Capitalisation
		FY 2021-22	FY 2021-22
		(Rs. in Crs.)	(Rs. in Crs.)
1	Construction of 132/33 KV Umrangsho GSS	0.00	1.33
2	Supply of 160 Mva transformer and related services at Salakati GSS	0.00	6.52
3	Construction of 33 KV Feeders at Umrangsho GSS	0.00	0.22
4	Construction of 132/33 KV Umrangsho GSS	0.00	0.71
	Total	0.00	8.78

Funding of NEC Projects

Sr	Capitalisation	Funding Pattern	FY 2021-22
			(Rs. in Crs.)
A	GoA	100%	8.78
	Total	100%	8.78

12. Internal Accrual Equity

AEGCL has made this capital expenditure out of its internal resources. As such the funding has been shown as equity.

1. 220kV Bay construction at Balipara end (PGCIL)

The second circuit of the 220kV Sonabil-Balipara transmission line will be operationalized by AEGCL when the terminal bay at Balipara Substation (PGCIL) is completed. The power supply position at Sonabil substation and AEGCL's 220kV Samaguri GSS, as well as all related downstream networks, will be more reliable and secure.

2. Supply, erection and commissioning of battery bank and battery charger for Lower, Central & Upper Assam Region in AEGCL

After the analysis of the untoward incident of 220 kV Samaguri Substation that took place on 17th September, 2020, emphasis was put on regarding the presence of dual DC source in the substations. In this regard, letter was received on 08.04.2021 from the DGM, Bongaigaon T&T Circle, AEGCL, Dhaligaon requesting for arrangement of a redundant DC source at 132 kV Kokrajhar GSS and 132 Bilasipara GSS by commissioning 01 set of 110V Battery Bank & Battery Charger at both the substations on an urgency basis. This is due to the fact that 132 kV Kokrajhar GSS and 132 kV Bilasipara GSS was equipped with only 01 set of 110V Battery Charger and Battery Bank. As stated, a single DC source for the grid substations is undesirable and availability of a redundant DC source is deemed necessary for smooth operation of the substation. Also, the substations were not considered for PSDF scheme (Phase-I).

Requirement was received from the DGM, LA T & T Circle stating that the battery bank and battery charger present at Sishugram substation are very old and problematic (manufacturing year being 1992) and the same needs to be replaced at the earliest. Also, as stated, battery bank no 02 present at Jawaharnagar GIS was not working. Proposals for new 220/110 V battery bank and charger were received for many sites under GTD, Sarusajai Division, Rangia Division and Kahilipara Division. Additionally, requirement was received from the DGM, 400KV Kukurmara (Mirza) GSS, proposing for new 220/110 V Battery bank and charger at 220KV Boko GSS, 132 kV Azara GSS, 132 kV Matia GSS, 132 kV APM GSS and 220 kV Agia GSS.

The following substations under jurisdiction of CAR had only one available healthy D.C. source:

- i) 132/33 kV Dhekiajuli GSS (110 DC)
- ii) 132/33 kV Ghoramari GSS (110V DC)
- iii) 132/33 kV Haflong GSS (110 V DC)
- iv) 132/33 kV Srikona GSS (110V DC)
- v) 132/33 kV Pailapool GSS (110V DC)
- vi) 220/132 kV Sonabil GSS (220V DC)

For smooth and safe operation of the Control System, dual DC source is most essential. Considering the above, an estimate was prepared for procurement and installation of battery bank & battery charger for six number of substation as per requirement. Requirement of 2nd source D.C System in many GSS of UAR under Dibrugarh T&T Circle, Lakhimpur T&T Circle and Jorhat T&T Circle was received from the GM, UA, T&T Zone vide letter dated 19.03.2021.

As per the decision on Samaguri Day held on 17th March, 2021, viewing the urgency, an estimate was prepared for procurement and installation of battery bank, battery charger and DCDB at the sites as per requirement. The proposal for purchase was approved from AEGCL's own source. Accordingly, tendering for "Supply, erection and commissioning of battery bank and battery charger for Lower, Central & Upper Assam Region in AEGCL" was done. Single stage two envelope bidding system was adopted for the procurement. Tender was invited through e-tendering portal assamtenders.gov.in.

3. Supply of clamps, connectors, and hardware fittings for Lower Assam Region in AEGCL

Clamps, connectors, and hardware fittings are basic requirements for daily operation and maintenance in a substation. Considering the same, estimate was prepared for supply of clamps, connectors, and hardware fittings at LAR, CAR & UAR sites as per field requirement. The proposal for purchase was approved from AEGCL's own source. Accordingly, tendering for "Supply of clamps, connectors and hardware fittings for Lower Assam Region in AEGCL" was done. Single stage two envelope bidding system was adopted for the procurement. Tender was invited through e-tendering portal assamtenders.gov.in.

4. Provision for Furniture

AEGCL's main office and field offices are in need of new office furniture. Improvements to the aesthetics of field offices, which now lack many of these basic features, would necessitate a large expenditure.

5. Provision for Office & Communication Equipment

There is a requirement for the acquisition of office equipment for essential requirements. These include printers, office supplies, and communication equipment that have been on hold for a long time.

6. Provision for Civil & Other Miscellaneous Works

There is a requirement for renovation of AEGCL buildings, other buildings (residential colonies, Schools, hospitals etc.,) and road works at several offices, AEGCL has carried out these works from its internal accrual equity.

Summary of Own Source Projects and Capitalisation is tabulated below:

Sr	Capital Expenditure	FY 2021-22	FY 2022-23
		Actual	Estimated
		(Rs. in Crs.)	(Rs. in Crs.)
1	Turnkey Construction of 220 kV Bay at Balipara Substation of Power Grid for termination of 2nd Circuit of 220 kV Balipara Sonabil -II	2.38	0.24
2	Supply, erection and commissioning of battery bank and battery charger for Central Assam Region in AEGCL	-	0.47
3	Supply, erection and commissioning of battery bank and battery charger for Upper Assam Region in AEGCL	-	1.24
4	Supply, erection and commissioning of battery bank and battery charger for Lower Assam Region in AEGCL	-	1.38
5	Supply of clamps, connectors and hardware fittings for Central Assam Region in AEGCL	-	0.40
6	Supply of clamps, connectors and hardware fittings for Upper Assam Region in AEGCL	-	0.58
7	Supply of clamps, connectors and hardware fittings for Lower Assam Region in AEGCL	-	0.73
	Total	2.38	5.04

Sr	Capitalisation	FY 2021-22	FY 2022-23
		Actual	Estimated
		(Rs. in Crs.)	(Rs. in Crs.)
1	Turnkey Construction of 220 kV Bay at Balipara Substation of Power Grid for termination of 2nd Circuit of 220 kV Balipara Sonabil -II	-	2.62
2	Supply, erection and commissioning of battery bank and battery charger for Central Assam Region in AEGCL	-	0.47
3	Supply, erection and commissioning of battery bank and battery charger for Upper Assam Region in AEGCL	-	1.24
4	Supply, erection and commissioning of battery bank and battery charger for Lower Assam Region in AEGCL	-	1.38
5	Supply of clamps, connectors and hardware fittings for Central Assam Region in AEGCL	-	0.40
6	Supply of clamps, connectors and hardware fittings for Upper Assam Region in AEGCL	-	0.58
7	Supply of clamps, connectors and hardware fittings for Lower Assam Region in AEGCL	-	0.73

Sr	Capitalisation	FY 2021-22	FY 2022-23
		Actual	Estimated
		(Rs. in Crs.)	(Rs. in Crs.)
8	Furniture and Fixtures	2.51	-
9	Office & Communication Equipment	8.49	-
10	Civil & Other Miscellaneous Works	3.31	-
	Total	14.31	7.42

Funding of Internal Accrual Equity

Sr	Capital Expenditure	Funding Pattern (%)	FY 2021-22	FY 2022-23
			(Rs. in Crs.)	(Rs. in Crs.)
A	AEGCL	100%	2.38	5.04
	Total		2.38	5.04

Sr	Capitalisation	Funding Pattern (%)	FY 2021-22	FY 2022-23
			(Rs. in Crs.)	(Rs. in Crs.)
A	AEGCL	100%	14.31	7.42
	Total		14.31	7.42

Annexure-V
Details of Colony Maintenance for
FY 2022-23

**Status of work approved under AERC approved fund for Colony Maintenance for the FY 2022-23
under jurisdiction of Central Assam region (As on 04.11.2022)**

Sl. No.	Name of work	Amount	Status			
1	Renovation of existing damaged quarter to convert into officer's hostel at 132KV Dullavcherra GSS (Unit-I)	₹ 7,77,026.00	Work is going on		₹ 7,77,026.00	W.O No.: AEGCL/STTC/Tech-13(Pt-III)/2022-23/279 Dated 23.09.2022
2	Renovation of existing damaged quarter to convert into officer's hostel at 132KV Dullavcherra GSS (Unit-II)	₹ 7,77,026.00	Work is going on		₹ 7,77,026.00	W.O No.: AEGCL/STTC/Tech-13(Pt-III)/2022-23/278 Dated 23.09.2022
3	Installation of deep tube well for officer's hostel at Dullavcherra GSS.	₹ 1,76,174.00	Work is going on		₹ 1,76,174.00	W.O No.: AEGCL/STTC/Tech-13(Pt-III)/2022-23/280 Dated 23.09.2022
4	PCC PAVE way for approach to officer's Hostel at Dullavcherra GSS.	₹ 1,80,540.00	Work is going on		₹ 1,80,540.00	W.O No.: AEGCL/STTC/Tech-13(Pt-III)/2022-23/281 Dated 23.09.2022
5	Renovation and repairing work of Type VI quarter at Samaguri GSS (3 Nos Quarter)	₹ 10,84,146.00	Work is going on		₹ 10,84,146.00	W.O No.: AEGCL/DGM/TTC/TEZ/T-25/2022/3121 Dated 31.08.2022
6	Renovation and repairing work of Type IV quarter at Samaguri GSS (1 No Quarter)	₹ 4,74,820.00	Work is going on		₹ 4,74,820.00	W.O No.: AEGCL/DGM/TTC/TEZ/T-25/2022/3092 Dated 31.08.2022
7	Renovation and repairing work of Type V quarter at Samaguri GSS (4 No Quarter)	₹ 17,02,942.00	Work is going on		₹ 17,02,942.00	W.O No.: AEGCL/DGM/TTC/TEZ/T-25/2022/3101 Dated 31.08.2022
8	Repairing cum modification of existing quarter to be converted into Officer's Hostel at 220 KV Samaguri GSS campus	₹ 6,53,682.00	FC under process		₹ 6,53,682.00	Put up
9	Repairing cum modification of existing quarter to be converted into Staff's Hostel at 220 KV Samaguri GSS Campus	₹ 10,43,773.00	FC under process		₹ 10,43,773.00	Put up
10	Renovation of existing Staff Quarters and convert into 7(seven) nos. capacity staff hostel at 132 KV Depota GSS Campus	₹ 12,03,492.00	FC under process		₹ 16,39,607.00	AA No: AEGCL/MD/CGM(O&M)/AERC Approved fund for colony maintenance/2022/17 Dated 05.08.2022
11	Repairing cum construction of approach road and plinth protection for newly shifted Nagaon T&T Division office building at Samaguri GSS campus	₹ 1,37,236.00	Financial Clearance issued		₹ 1,37,236.00	FC No: AEGCL/MD/CGM(O&M)/AERC Approved fund for colony maintenance/2022/33 Dated 01.11.2022
12	Construction of one number security booth at 132KV Dhekiajuli GSS	₹ 2,80,672.00	Tendering stage		₹ 2,80,672.00	AA No: AEGCL/MD/CGM(O&M)/AERC Approved fund for colony
13	Repairing of Bituminous Macadam Road from main gate to S/Y at 220KV GSS Samaguri	₹ 14,33,387.00	Tendering stage		₹ 14,33,387.00	AA No: AEGCL/MD/CGM(O&M)/AERC Approved fund for colony
14	Construction of main entrance gate and renovation of security booth at 220KV Samaguri GSS	₹ 6,74,379.00	Tendering stage		₹ 6,74,379.00	AA No: AEGCL/MD/CGM(O&M)/AERC Approved fund for colony
15	Repairing of Type-VI Qtr. No. 12 at 132KV Haflong GSS	₹ 68,868.00	Tendering stage		₹ 68,868.00	AA No: AEGCL/MD/CGM(O&M)/AERC Approved fund for colony
16	Construction of 111KV Spur Line & Installation of 11/0.43KV, 63 KVA Distribution Transformer for providing power supply to residential colony at 132/33KV Karimganj GSS	₹ 15,45,989.00	Fund deposited to APDCL.		₹ 15,45,989.00	
17	Construction of 3PH LT Line for providing power supply to residential colony at 132/33KV Karimganj GSS	₹ 3,86,498.00	Fund deposited to APDCL.		₹ 3,86,498.00	
	Total Administrative Approval and Financial Clearance	₹ 1,26,00,650.00			₹ 1,30,36,765.00	

✓ Total amount sanction against Central Assam Region Rs. 1,33,00,000, out of which Administrative Approval and Financial Clearance accorded for Rs. 1,26,00,650.

✓ Work against Sl. No. 1 to 4 expected to be completed within 15th December 2022 and work against Sl. No. 5 to 7 expected to be completed within 30th November 2022.

✓ Financial clearance for work under Sl. No. 8 to 10 under process.

✓ Work order for item Sl. No. 11 will be issued within this week.

✓ Work against item Sl. No. 12 to Sl. No 15 under tendering stage.

✓ Fund against item Sl. No 16 and 17 has been deposited to APDCL account by AGM, Silchar T&T Division and work will be executed by APDCL.

✓ Remaining balance amount of Rs 6,99,350 will be utilised for colony maintenance work within this financial year.

Balance ₹ 6,99,350.00

Total amount sanction against Central Assam Region Rs. 1,33,00,000, out of which Administrative Approval and Financial Clearance accorded for Rs. 1,26,00,650.

Work against Sl. No. 1 to 4 expected to be completed within 15th December 2022 and work against Sl. No. 5 to 7 expected to be completed within 30th November 2022.

Financial clearance for work under Sl. No. 8 to 10 under process.

Work order for item Sl. No. 11 will be issued within this week.

Work against item Sl. No. 12 to Sl. No 15 under tendering process.

Fund against item Sl. No 16 and 17 has been deposited to APDCL account by AGM, Silchar T&T Division and work will be executed by APDCL.

Total sanctioned amount	₹ 1,33,00,000.00	
Administrative Approval and Financial Clearance accorded as on 04.11.2022	₹ 1,26,00,650.00	
Work under Sl. No. 1 to 7 and Sl. No 16 & 17 going on	₹ 71,05,161.00	
FC under process Sl. No. 8 to 10	₹ 29,00,947.00	₹ 1,26,00,650.00
FC issued Sl. No. 11	₹ 1,37,236.00	
Under tender process Sl. No. 12 to 15	₹ 24,57,306.00	

Colony Maintenance Fund under LAR for FY 2022-23

Total fund allotted to LAR = 2.30 Cr

Sl. No.	Work Details	Estimate	AA accord date	AA amount	FC accord date	FC amount
1	Repairing of Type -03(N) quarter no-01 at kahilipara AEGCL Colony	1,16,694.00	05-03-2022	1,16,694.00	30-05-2022	1,16,694.00
2	Repairing of Type -03(N) quarter no-04 at kahilipara AEGCL Colony	2,59,096.00	05-03-2022	2,59,096.00	30-05-2022	2,59,096.00
3	Repairing and renovation of Type -IV/12 at Kahilipara AEGCL Colony	2,95,313.00	05-03-2022	2,95,313.00	30-05-2022	2,95,313.00
4	Repairing and renovation of Type -IV No-7 at Kahilipara AEGCL Colony	3,46,097.00	05-03-2022	3,46,097.00	30-05-2022	3,46,097.00
5	Repairing and renovation of Type -III/06 at Kahilipara AEGCL Colony	5,93,392.00	05-03-2022	5,93,392.00	30-05-2022	5,93,392.00
6	Water proofing of Type-III/08 at Kahilipara, AEGCL, Colony.	93,132.00	30-05-2022	93,132.00	30-05-2022	93,132.00
7	Repairing and renovation of LP school to convert it to security Barrack at AEGCL Kahilipara colony	6,62,530.00	30-05-2022	6,62,530.00	30-05-2022	6,62,530.00
8	Construction of security Barrack toilet at AEGCL Kahilipara colony	4,65,046.00	30-05-2022	4,65,046.00	30-05-2022	4,65,046.00
9	Repairing and renovation of RCC Type-V quarter no11 to convert it to staff guest house at Kahilipara colony	4,77,102.00	30-05-2022	4,77,102.00	30-05-2022	4,77,102.00
10	Repairing and renovation of RCC Type -V/01 at AEGCL Kahilipara Colony	1,63,427.00	30-05-2022	1,63,427.00	30-05-2022	1,63,427.00
11	Repairing and renovation of RCC Type-V quarter no9 to convert it to staff guest house at Kahilipara colony	2,34,067.00	30-05-2022	2,34,067.00	30-05-2022	2,34,067.00
12	Repairing and renovation of RCC Type -III/01 at AEGCL Kahilipara Colony	1,06,353.00	30-05-2022	1,06,353.00	30-05-2022	1,06,353.00
13	Repairing and Renovation of Type -V unit-10 quarter at Kahilipara AEGCL, Colony.	58,050.00	30-05-2022	58,050.00	30-05-2022	58,050.00
14	Repairing and Renovation of Type -V quarter no-12 quarter at Kahilipara AEGCL, Colony.	3,57,178.00	30-05-2022	3,57,178.00	30-05-2022	3,57,178.00
15	Lifting of column pipe and replacement of 5HP submersible pump deep tube well no.2 & 4 at AEGCL, Kahilipara Colony	2,03,991.00	30-05-2022	2,03,991.00	30-05-2022	2,03,991.00
16	Repairing and renovation of Type-III/08 quarter at Kahilipara, AEGCL, Colony	2,74,435.00	30-05-2022	2,74,435.00	30-05-2022	2,74,435.00
17	Construction Parking Shed at DGM Office, Mirza T&T Circle, AEGCL, Mirza	3,67,523.00	24-06-2022	3,67,523.00	05-09-2022	3,17,064.00
18	PCC Work at front yard of DGM Office, Mirza T&T Circle, AEGCL, Mirza	1,61,074.00	24-06-2022	1,61,074.00	05-09-2022	1,31,322.00
19	Jungle cutting and cleaning at AEGCL Colony, Kahilipara	72,688.00	24-06-2022	72,688.00	24-06-2022	72,688.00
20	Repairing of Officer's Hostel at 132KV Sipajhar GSS	8,31,613.00	07-03-2022	8,31,613.00	29-06-2022	8,26,705.00
21	Construction of new wall inside Dwaranda Store	4,06,373.00	24.03.2022	4,06,373.00	29-06-2022	4,03,082.00
22	Construction of Parking shed for 5 (five) vehicles at 220/132/33 KV EHV Sarusajai GSS, AEGCL	3,94,252.00	05-03-2022	4,24,252.00	29-06-2022	4,23,581.00
23	Repairing of Type-IV/GF-2 Unit of RCC Building at Sarusajai AEGCL, Colony	2,09,588.00	05-03-2022	2,09,588.00	29-06-2022	2,08,457.00
24	Repairing and renovation of Type-III RCC (1) Building Quarter No- FF-2 including roof water proofing treatment at sarusajai AEGCL Colony	2,53,115.00	05-03-2022	2,53,115.00	29-06-2022	2,52,465.00
25	Repairing and renovation of Type-III RCC (1) Building Quarter No- GF-01 including Head Room roof treatment at sarusajai AEGCL Colony	3,41,532.00	05-03-2022	3,49,331.00	29-06-2022	3,47,793.00
26	Repairing and renovation of Type III RCC (1) Building Quarter No-GF-2 at sarusajai AEGCL Colony	2,41,661.00	05-03-2022	3,32,278.00	29-06-2022	3,29,805.00
27	Repairing and renovation of Type-IV RCC (1) Building Quarter No-GF-1 at sarusajai AEGCL Colony	1,86,277.00	05-03-2022	1,86,277.00	29-06-2022	1,85,377.00

28	Repairing and renovation of Type-IV RCC (2) Building Quarter No-FF-2 at sarusajai AEGCL Colony	1,50,145.00	05-03-2022	2,11,121.00	29-06-2022	2,09,312.00
29	Repairing and renovation of Type-IV RCC (2) Building Quarter No-FF-3 at sarusajai AEGCL Colony	1,80,274.00	05-03-2022	2,00,831.00	29-06-2022	2,00,645.00
30	Repairing of Type -03(N) quarter no-02 at kahilipara AEGCL Colony	68,580.00	05-03-2022	68,580.00	29-06-2022	68,580.00
31	Repairing of RCC Type-V quarter at 132/33 kV Baghjaip GSS(including sanitary work)	3,26,512.00	07-03-2022	3,26,512.00	29-06-2022	3,26,349.00
32	Repairing the approach road to the entry section of the AEGCL Dhaligaon Campus by laying pavers block at 132KV GSS, AEGCL, Dhaligaon	1,48,360.00	15-07-2022	1,52,470.00		
33	Re-painting the front portion of the boundary wall along with jungle clearing at 132KV GSS AEGCL, Dhaligaon	1,84,371.00	15-07-2022	1,93,072.00		
34	Repairing the approach road to the Guest House by laying pavers block at 132KV GSS AEGCL, Dhaligaon	9,35,805.00	15-07-2022	9,61,733.00		
35	Repairing of Departmental quarter, No- NT-III/1, at AEGCL Campus of 132KV Dhaligaon GSS	53,387.00	15-07-2022	53,387.00		
36	Proposal for Repairing and Renovation of Type-V/21 quarters at Kahilipara, AEGCL, Colony	1,10,904.00	03-08-2022	1,10,904.00		
37	Proposal for Repairing and Renovation of Type-IV Unit-03 quarter at Kahilipara, AEGCL, Colony	1,19,212.00	03-08-2022	1,19,212.00		
38	Additional works for RCC slow sand water filter for colony including repairing and renovation of existing pump house at 220 kV Sarusajai.	1,81,414.00	04-03-2022 under O&M	1,81,414.00	17-08-2022	1,79,039.00
39	Repairing and renovation of security Booth including running water system at 220KV EHV Sarusajai GSS	2,35,774.00	05-03-2022 under O&M	2,28,170.00	17-08-2022	2,25,448.00
40	Repairing of 6 Nos. of quarters in 220KV Agia GSS		30.08.2022	3,31,139.00		
41	Installation of new deep tubewell at ASEB Colony Kahilipara		22-09-2022	15,89,243.00		
42	Increasing the depth of deep tube well No. 03 at Kahilipara AEGCL Colony		22-09-2022	3,84,589.00		
43	Replacement of water supply main pipeline with new pipes at ASEB Colony, Kahilipara		22-09-2022	17,74,358.00		
44	Replacement of water supply service pipeline with new pipes (CPVC) along with some bibcock at ASEB Colony Kahilipara		22-09-2022	7,74,279.00		
45	Construction of 9 Nos. of staging along with supplying, fitting and fixing of 34 Nos. of HDPE overhead water tank for assam type quarter at ASEB colony, Kahilipara		22-09-2022	23,20,120.00		
46	Construction of Security Barrack at 132KV Nalbari GSS, AEGCL		09-05-2022	7,85,540.00	17-08-2022	7,84,668.00
47	Construction of slow sand filter along with distribution pipes at 132KV Nalbari GSS		17-10-2022	7,06,918.00		
48	Construction of new boring along with construction of pump house at 132KV Nalbari GSS		17-10-2022	7,23,202.00		
49	Construction of approach road and earth filling at 132KV Nalbari GSS		17-10-2022	4,22,605.00		
50	Repairing & Renovation of two rooms in officer's hotel at 132KV Rangia GSS		17-10-2022	2,52,521.00		
51	Extension and Renovation of the existing washroom of the control room building for provision of a separate ladies toilet at 132KV Dhaligaon GSS, AEGCL		17-10-2022	2,97,715.00		
52	Repairing and Renovation of RCC type III/2 unit 3 at Sarusajai AEGCL Colony.	6,30,435.00	27-06-2022	6,30,435.00	17-10-2022	6,29,554.00

53	Repairing and Renovation of RCC type III/2 unit 4 at Sarusajai AEGCL Colony.	4,94,030.00	27-06-2022	4,94,030.00	17-10-2022	4,93,023.00
Total				2,25,94,115.00		1,13,20,860.00

Total Administrative Approval Accorded = ₹ 2,25,94,115.00

Utilization of fund approved by AERC FY 2022-23 under O&M, UAR
(as on 7/11/2022)

Sl. No	Circle	Work Description	Amount(₹)	Status
1	Jorhat T&T Circle	Construction of RCC rapid sand filter of capacity 4sq. Mtr (1.6mX1.25mX2.4m) at 132KV GSS, AEGCL, Bokajan	4,81,617.00	Work under progress
2		Internal connection between filter unit and reservoir at 132 KV GSS, AEGCL, Bokajan	2,08,775.00	Work under progress
3		Supplying and changing of filter media at 132KV GSS, AEGCL, Bokajan	22,251.00	Work under progress
4		Construction of Aeration column(Cascade Type) at 132KV GSS, AEGCL, Bokajan	1,31,627.00	Work under progress
5		Providing UPVC under drainage system of rapid sand filter at 132KV GSS, AEGCL, Bokajan	19,667.00	Work under progress
6		Repairing of staging water tank and external distribution pipes with fittings at 132KV GSS, AEGCL, Bokajan	4,23,874.00	Work under progress
7		Repairing of existing underground reservoir at 132KV GSS, AEGCL, Bokajan	1,07,346.00	Work under progress
8		Repairing of common toilet of office at the office of the AGM, Nazira Division, AEGCL, Gargaon	1,55,368.00	Work under progress
9		Repairing of RE quarter at 132kv GSS, Betbari, AEGCL	1,41,924.00	Work under progress
10		Repairing of RE office, CRB and common toilet of control room building, Diphu GSS, AEGCL.	1,88,529.00	Work under progress
11		Construction of RCC slow sand filter(36KL) at 132kv GSS, Diphu, AEGCL	7,43,317.00	Work under progress
12		Construction of security booth at 132kv GSS, AEGCL, Jorhat West	2,24,288.00	Work under progress
13		Construction of main entrance gate at 132kv GSS, AEGCL, Diphu	1,27,563.98	Work under progress
14		Construction of main entrance gate at T&T Store, AEGCL, Garmur	1,06,961.80	Work under progress
15		Renovation/repairing of Guest House kitchen at 220kv GSS, Mariani.	1,76,572.58	Work under progress
16		Providing, fitting, fixing of dyna roofing sheets in the steel trusses to prevent water leakage in the CRB at 132kv GSS, AEGCL, Betbari	12,68,346.00	Tendering Stage
17		Demolition, repairing of existing floor of the CRB at 132KV GSS, AEGCL, Betbari	12,56,759.00	Tendering Stage
18		Renovation of water pipeline at 66KV Colony, 220KV GSS at 220KV GSS, AEGCL, Mariani	3,97,598.43	Work under progress
19		Renovation of water pipeline of 220KV Colony at 220KV GSS, AEGCL, Mariani	2,89,067.00	Work under progress
20		Repairing of officer hostel and staff hostel along with RE quarter at 132kv GSS, Sonari	4,33,648.00	Tendering Stage
21		Repairing of Type D residential quarter at 132kv GSS, Golaghat, D2	2,08,170.00	Tendering Stage

22		Repairing of Type D residential quarter at 132kV GSS, Golaghat, D1	1,42,253.00	Tendering Stage
23		Repairing of Type C residential quarter at 132kV GSS, Golaghat, C2	2,10,047.00	Tendering Stage
24		Repairing of Type C residential quarter at 132kV GSS, Golaghat, C3	2,04,464.00	Tendering Stage
25		Repairing of Type D residential quarter at 132kV GSS, Diphu, D1	1,73,226.00	Tendering Stage
26		Renovation of type-IV quarter at 220kV Colony, AEGCL, Mariani, Qtr-4	1,67,086.00	Tendering Stage
27		Renovation of type-III quarter at 220kV Colony, AEGCL, Mariani, Qtr-2	1,58,156.00	Tendering Stage
28		Construction of WGM road at the approach road to Nabajyoti Gaon near 220kV Colony, AEGCL, Mariani	75,985.00	Tendering Stage
29		Construction of security booth (without toilet) at 132kv GSS, AEGCL, Bokajan	2,52,469.00	Tendering Stage
30		Renovation/ repairing of guest house at 132kv GSS, AEGCL, Bokajan	5,41,439.00	Tendering Stage
31		Repairing/renovation of staff Hostel at 132kv GSS,AEGCL,Bokakhat	3,04,269.00	Tendering Stage
32		Repairing/renovation of Officer's Hostel at 132kv GSS,AEGCL, Bokakhat	3,80,395.00	Tendering Stage
33	Dibrugarh T&T Circle	Construction of new lavatory room at 132KV GSS, Bordubi	4,58,034.00	Work under progress
34		Construction of new lavatory room at 220KV GSS, Tinsukia	3,20,823.00	Work under progress
35		Construction of new lavatory room at 132KV GSS, Margherita	3,18,061.00	Work under progress
36		Repairing and renovation of Type IV quarter(1 No.) at 220 KV GSS Tinsukia	3,12,403.00	Work under progress
37		Repairing and renovation of Type D quarter(2 Nos.) at 220 KV GSS Tinsukia	3,78,018.00	Work under progress
38		Repairing and renovation of Type V quarter(2 Nos.) at 220 KV GSS Tinsukia	3,83,193.00	Work under progress
39		Repairing and renovation of RE quarter at 220KV GSS, AEGCL, Tinsukia	4,20,278.00	Work under progress
40		Repairing and renovation of Type III quarter (Room 1 & 4) at 220KV GSS, AEGCL, Tinsukia	4,13,316.00	Work under progress
41		Construction of ladies' lavatory at 132KV GSS, AEGCL, Behiating	2,91,765.00	Work under progress
42		Construction of ladies' lavatory at 132KV GSS, AEGCL, Moran	3,00,903.00	Work under progress
43		Repairing of officers hostel at Moran GSS	11,90,880.00	Work under progress
44		Repairing and maintenance of departmental qtr Type C, Qtr no 1 of the residential colony of 132kv Dibrugarh GSS,AEGCL	3,57,615.00	Work under progress
45		Repairing and maintenance of departmental qtr Type C, Qtr no 2 of the residential colony of 132kv Dibrugarh GSS,AEGCL	1,81,947.00	Work under progress

46		Repairing and maintenance of departmental qtr Type D, Qtr no 12 of the residential colony of 132kv Dibrugarh GSS,AEGCL	1,35,748.00	Work under progress
47		Repairing and maintenance of departmental qtr Type D, Qtr no 18 of the residential colony of 132kv Dibrugarh GSS,AEGCL	1,30,354.00	Work under progress
48		Repairing and renovation of RE quarter at 132kv GSS,AEGCL,Ledo	3,54,167.00	Tendering Stage
49		Repairing and renovation of Type-IV(a) quarters(2 nos) at 132kv GSS, AEGCL, Ledo	4,32,282.00	Tendering Stage
50		Repairing and renovation of Type-IV(b) quarters(2 nos) at 132kv GSS, AEGCL, Ledo	4,26,844.00	Tendering Stage
51	Lakhimpur T&T Circle	Renovation(Roof, Ceiling, Brick work & Plastering) of Type-IV(C) Quarter at 132KV Nalkata GSS, AEGCL, N.Lakhimpur	2,66,696.00	Work under progress
52		Renovation (Painting, wood work, sanitary & electrification)of Type-IV (C)Quarter at 132KV Nalkata GSS, North Lakhimpur	2,64,363.00	Work under progress
53		Renovation of Type V(A) Quarter at 132KV Nalkata GSS, AEGCL, North Lakhimpur	2,19,289.00	Work under progress
54		Renovation of Type-III(B) Quarter allotted to AGM, T&T Division, AEGCL, North Lakhimpur.	1,13,438.00	Work under progress
55		Renovation of two septic tanks for Type-IV (C&E)Quarter at 132KV Nalkata GSS, North Lakhimpur	1,20,615.00	Work under progress
56		Renovation of Type IV(D) Quarter at 132KV Nalkata GSS, AEGCL, North Lakhimpur	1,27,891.00	Work under progress
57		Renovation of Type V(B) Quarter at 132KV Nalkata GSS, AEGCL, North Lakhimpur	1,42,452.00	Work under progress
58		Renovation of Hostel rooms(A, B,C &D) at 132KV Pavoi GSS	1,58,815.00	Work under progress
59		Extension of IB at 132KV Nalkata GSS, AEGCL, North Lakhimpur	19,19,511.00	Work under progress
60		Renovation (Roof, Ceiling, Brick work & Plastering) of Type-IV(Quarter at 132KV Nalkata GSS, AEGCL, North Lakhimpur-I	2,85,008.00	Work under progress

61	Renovation (Painting, Wood work, Sanitary & Electrification) of Type-IV(Quarter at 132KV Nalkat GSS, AEGCL, North Lakhimpur	3,32,449.00	Work under progress
62	Renovation (Plastering, Painting, Tiles & Sanitary) of Control Room at 132KV Nalkata GSS, AEGCL, North Lakhimpur	4,48,571.00	Work under progress
63	Renovation of Type-IV Quarter (Dipak Das) at 132KV Nalkata GSS, AEGCL, North Lakhimpur	2,45,848.00	Work under progress
64	Renovation of Type-III Quarter (Surrendra Basumatary) at 132KV Nalkata GSS, AEGCL, North Lakhimpur	2,28,998.00	Work under progress
65	Renovation of Security Booth at 132KV Gohpur GSS, AEGCL	1,33,817.00	Work under progress
66	Construction of RCC slow sand water filter (24KL) at 132KV Gohpur GSS, AEGCL	4,88,164.00	Work under progress
67	Construction of Staging for Syntex water tank of 4000 litre capacity including construction of slow sand filter at 132KV Gohpur GSS	6,89,890.00	Work under progress
68	Renovation of Type -V(A) quarter at 132kV GSS, Gohpur	2,61,668.00	Tendering Stage
Total Administrative Approval and Financial Clearnce		2,29,77,172.79	

Summary:

Total fund allotted to O&M, UAR is **Rs. 2,30,00,000.00**

Administrative approval and Financial Clearance issued for an amount of **Rs.2,29,77,172.79**

49 Nos. of works are under process and expected to be completed soon by this financial year.

19 Nos. of works are under tendering stage. Once the tendering stage is completed, the work will start immediately.

Remaining Balance amount of **Rs.22,827.21** yet to be utilized for colony maintenance work within this financial year.

Annexure-VI

**Conversion of Govt. Grants & Loans
to Equity for AEGCL**

**GOVERNMENT OF ASSAM
POWER (ELECTRICITY) DEPARTMENT
DISPUR GUWAHATI##06**

No. PEL.58/2021/Pt./105

Dated Dispur the 3rd February, 2022.

From : F.R. Laskar,ACS,
Joint Secretary to the Govt. of Assam,
Power (Elect.) Department.

To : The Managing Director,AEGCL,
Bijulee Bhawan, Paltanbazar,
Guwahati-01.

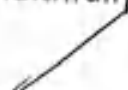
Sub : **Regarding Decision of Hon'ble Cabinet meeting held on
24/12/2021.**

Sir,

With reference to the subject cited above, I am directed to inform you that, the Hon'ble Cabinet in its meeting held on 24-12-2021 approved the proposal of AEGCL for "Conversion of Government Loan and Grant to AEGCL into Equity and 2.Waiver of interest Accrued on Loan, as on 31.03.2021".

You are therefore requested to take necessary action for compliance to the decision of Hon'ble Cabinet.

Yours faithfully,

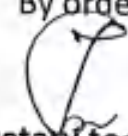

**Joint Secretary to the Govt. of Assam,
Power Elect.) Department.**

**Memo. No. PEL.58/2021/Pt./105-A,
Copy to:-**

Dated Dispur the 3rd February, 2022.

✓ P.S.to Principal Secretary , Power (E.) Department, for kind information.

By order etc.,


**Joint Secretary to the Govt. of Assam,
Power (Elect.) Department.**

**GOVERNMENT OF ASSAM
POWER (ELECTRICITY) DEPARTMENT
DISPUR GUWAHATI##06**

No. PEL.58/2021/Pt.II/22

Dated Dispur the 8th February, 2022.

From : F.R. Laskar, ACS,
Joint Secretary to the Govt. of Assam,
Power (Elect.) Department.

To : The Accountant General (AG),
Office of Accountant General, Assam,
Beltola, Bashitha, Guwahati-29.

Sub : Regarding conversion of Govt. Grant & Loans to AEGCL into Equity
(as on 31.03.2021) and Waiver of interest accrued on Govt.
Loans (upto 31-03-2021)-regarding.

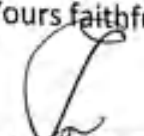
Sir,

With reference to the above, I am directed to inform you that, the Hon'ble State Cabinet in its meeting held 24-12-2021 approved the proposal of "Conversion of Govt. Grant & Loans to AEGCL into Equity (as on 31-03-2021) and waiver of interest accrued on Govt. Loans (up to 31-03-2021)

In this regards, the Power (E.) Department has issued necessary sanction order vide No.FS/42-2021-22 (I)-07 dated 31-12-2021 and No.FS//42-2021-22(I)-08 dated 31-12-2021 (copy enclosed).

This is for favour of your kind information and necessary action

Yours faithfully,



Joint Secretary to the Govt. of Assam,
Power Elect.) Department.

**Memo. No. PEL.58/2021/Pt.II/22-A,
Copy to:-**

Dated Dispur the 8th February, 2022.

1. The Managing Director, AEGCL, Bijulee Bhawan, Paltanbazar, Guwahati-01.
2. P.S. to Principal Secretary, Power (E.) Department, for kind information.

By order etc.,


Joint Secretary to the Govt. of Assam,
Power (Elect.) Department.

**GOVERNMENT OF ASSAM
POWER (ELECTRICITY) DEPARTMENT
DISPUR GUWAHATI#06**

No. PEL-49/2021/281

Dated Dispur the 10th March, 2022.

From : F.R. Laskar, ACS,
Joint Secretary to the Govt. of Assam,
Power (Elect.) Department.

To : ✓ The Managing Director, AEGCL,
Bijulee Bhawan, Paltanbazar,
Guwahati-01.

Sub : Regarding Decision of Hon'ble Cabinet meeting held on 24/12/2021.

Sir,

With reference to the subject cited above, I am directed to inform you that, the Hon'ble Cabinet in its meeting held on 24-12-2021, approved the proposal of AEGCL for "Enhancement of Authorised Share Capital from the present Rs. 10,000 Lakh (100 Lakh shares of Rs. 100 each) to Rs. 3,00,000 Lakh (3000 Lakh share of Rs. 100 each), in order to accommodate proposed Conversion of Rs. 2,59,346 Lakh from Grant and Loans into Equity".

You are therefore requested to take necessary action for compliance to the decision of Hon'ble Cabinet.

Yours faithfully,


Joint Secretary to the Govt. of Assam,
Power (Elect.) Department.

Memo. No. PEL-49/2021/281-A

Dated Dispur the 10th March, 2022

Copy to:-

P.S.to Principal Secretary , Power (E.) Department, for kind information.

By order etc.,


Joint Secretary to the Govt. of Assam,
Power (Elect.) Department.



Government Of Assam

Power (Electricity)
DepartmentFINANCIAL
SANCTION

Sanction No: FS/42_2021-22(I)_07

Sanction Date: 31-12-2021

To,

Accountant General (A&E) Assam, Maidamgaon, Beltola, Guwahati-29

PURPOSE/SCHEME

CONVERSION OF GOVERNMENT GRANTS TO AEGCL INTO EQUITY (AS ON 31.03.2021) BOOK ADJUSTMENT ONLY

Proposal No. : FS-42-2021-22-00008

Administrative Approval : Not Applicable

Dept. File No : PEL.58/2021/Pt-II

Financial Year : 2021-22

Finance Concurrence No : -N/A-

Sanctioned to : DIS/SAD/001 , SA(Accounts)Dept.

Sanctioned by: F R LASKAR, JT SECRETARY

HOA : 4801-80-190-2063-501-20-99-SOPD-ODS-V-GA

Issued under DFP Rules:

Financial Sanction of the competent authority is hereby accorded for an amount not exceeding **Rs.195505.00000 Lakhs (Rupees One Thousand Nine Hundred and Fifty Five Crore Five Lakh only)** towards the payment subject to the following terms and conditions:

TERMS & CONDITIONS

1. All norms in Assam Financial Rules, AFRBM Act 2005, CVC Guidelines, Assam Public Procurement Act 2017, Assam Public Procurement Rules 2021 and similar directives from Finance Department issued from time to time is to be strictly followed invariably.
2. The admissible deductions can be deducted and deposited into the Govt. Account by the Concerned Authority as per rule/ Govt. Instructions.
3. Work to be completed within the estimated cost in all respect without involving cost and time over run.

BENEFICIARY DETAILS

#	Name	Account Number	Amount (In Lakhs)	Remarks
1	Assam Electricity Grid Corporation Ltd	10566984188	195505.00000	BOOK ADJUSTMENT ONLY

COPY FORWARDED TO

1. The Accountant General (A&E) Assam, Maidamgaon, Beltola, Guwahati-29.
2. The Accountant General (Audit), Assam, Maidamgaon, Guwahati-29
3. The Power (Electricity) Department, Assam.
4. Finance (EC-I/II/III) Dept.
5. Finance (Budget) Dept.
6. SA(Accounts)Dept.
7. Treasury Officer, Dispur



Government Of Assam

Power (Electricity)
DepartmentFINANCIAL
SANCTION

Sanction No: FS/42_2021-22(I)_08

Sanction Date: 31-12-2021

To,

Accountant General (A&E) Assam, Maidamgaon, Beltola, Guwahati-29

PURPOSE/SCHEME Conversion of Govt. Loan to AEGCL into Equity (as on 31.03.2021) Book Adjustment Only

Proposal No. : FS-42-2021-22-00007

Administrative Approval : Not Applicable

Dept. File No : PEL.58/2021/PI-II

Financial Year : 2021-22

Finance Concurrence No : -N/A-

Sanctioned to : DIS/SAD/001 , SA(Accounts)Dept.

Sanctioned by: F R LASKAR, JT SECRETARY

HOA : 4801-80-190-2063-501-20-99-SOPD-ODS-V-GA

Issued under DFP Rules:

Financial Sanction of the competent authority is hereby accorded for an amount not exceeding **Rs.63841.00000 Lakhs (Rupees Six Hundred and Thirty Eight Crore Forty One Lakh only)** towards the payment subject to the following terms and conditions:**TERMS & CONDITIONS**

1. All norms in Assam Financial Rules, AFRBM Act 2005, CVC Guidelines, Assam Public Procurement Act 2017, Assam Public Procurement Rules 2021 and similar directives from Finance Department issued from time to time is to be strictly followed invariably.
2. The admissible deductions can be deducted and deposited into the Govt. Account by the Concerned Authority as per rule/ Govt. Instructions.
3. Work to be completed within the estimated cost in all respect without involving cost and time over run.

BENEFICIARY DETAILS

#	Name	Account Number	Amount (In Lakhs)	Remarks
1	Assam Electricity Grid Corporation Ltd	10566984188	63841.00000	BOOK ADJUSTMENT ONLY

COPY FORWARDED TO

1. The Accountant General (A&E) Assam, Maidamgaon, Beltola, Guwahati-29.
2. The Accountant General (Audit), Assam, Maidamgaon, Guwahati-29
3. The Power (Electricity) Department, Assam.
4. Finance (EC-I/II/III) Dept.
5. Finance (Budget) Dept.
6. SA(Accounts)Dept.
7. Treasury Officer, Dispur

FORM NO. SH-7

[Pursuant to section 64(1) of the Companies Act, 2013 and pursuant to rule 63 of the Companies Rules, 2014]



Notice to Registrar of any alteration of share capital

Form language ☒ English ☐ Hindi

Refer the instruction kit for filing the form.

1.(a)* Corporate identity number (CIN) of the company

U40101AS2003SGC007238

Pre-fill

(b) Global location number (GLN) of company

2.(a) Name of the company

ASSAM ELECTRICITY GRID CORPORATION LIMITED

(b) Address of the registered office of the company

BIJULEE BHAWAN
PALTAN BAZAR
GUWAHATI
Assam
781001
India

(c) *email Id of the company

md_aegcl@yahoo.co.in

3. *Purpose of the form

- ☒ Increase in share capital independently by company ☐ Increase in number of members
☐ Increase in share capital with Central Government order ☐ Consolidation or division etc.
☐ Redemption of redeemable preference shares ☐ Cancellation of unissued shares of one class and increase in shares of another class

4. In accordance with section 61(1) of the Companies Act, 2013, that by ☒ Ordinary ☐ Special resolution at the meeting of the members of the company held on (DD/MM/YYYY)

(a)(i) The authorised share capital of the company has been increased from

Existing	(in Rs.)	<input type="text" value="1,000,000,000.00"/>
Revised	(in Rs.)	<input type="text" value="30,000,000,000"/>
Difference (addition)	(in Rs.)	<input type="text" value="29,000,000,000.00"/>

6. The additional capital (taking into consideration the addition above) is divided as follows

(a) Number of equity shares	<input type="text" value="290,000,000"/>	Total amount of equity shares (in Rs.)	<input type="text" value="29,000,000,000.00"/>
(b) Number of preference shares	<input type="text" value="0"/>	Total amount of preference shares	<input type="text"/>
Total addition	(in Rs.) <input type="text" value="29,000,000,000.00"/>	(in Rs.)	

The conditions (e.g. voting rights, dividend rights, winding-up rights, etc.) subject to which new shares have been issued, are as follows

Ranking Pari Passu with the existing Share capital.

9. Revised capital structure after taking into consideration the changes vide points 4, 5, 6, 7 and 8 above

(a) Authorised capital of the company (in Rs.)

Break up of Authorised capital

Number of equity shares	<input type="text" value="300,000,000"/>	Total amount of equity shares (in Rs.)	<input type="text" value="30,000,000,000.0"/>
Nominal amount per equity share	<input type="text" value="100"/>		
Number of preference shares	<input type="text" value="0"/>	Total amount of preference shares (in Rs.)	<input type="text" value="0.00"/>
Nominal amount per preference share	<input type="text" value="0"/>		
Number of unclassified shares	<input type="text"/>	Total amount of unclassified shares (inRs.)	<input type="text"/>

(b) Issued capital of the company (in Rs.)

Break up of Issued capital

Number of equity shares	<input type="text" value="9,993,194"/>	Total amount of equity shares (in Rs.)	<input type="text" value="999,319,400.00"/>
Nominal amount per equity share	<input type="text" value="100"/>		
Number of preference shares	<input type="text" value="0"/>	Total amount of preference shares	<input type="text" value="0.00"/>
Nominal amount per preference share	<input type="text" value="0"/>		

(c) Subscribed capital of the company (in Rs.)

Break up of Subscribed capital

Number of equity shares	<input type="text" value="9,993,194"/>	Total amount of equity shares (in Rs.)	<input type="text" value="999,319,400.00"/>
Nominal amount per equity share	<input type="text" value="100"/>		
Number of preference shares	<input type="text" value="0"/>	Total amount of preference shares (in Rs.)	<input type="text" value="0.00"/>
Nominal amount per preference share	<input type="text" value="0"/>		

(d) Paid up capital of the company (in Rs.)

Break up of Paid up capital

Number of equity shares	<input type="text" value="9,993,194"/>	Total amount of equity shares (in Rs.)	<input type="text" value="999,319,400.00"/>
Nominal amount per equity share	<input type="text" value="100"/>		
Number of preference shares	<input type="text" value="0"/>	Total amount of preference shares (in Rs.)	<input type="text" value="0.00"/>
Nominal amount per preference share	<input type="text" value="0"/>		

10*. Whether articles of association have been altered ☐ Yes ☒ No

11. Particulars of payment of stamp duty (Refer instruction kit for details before filling the particulars)

(a) State or Union territory in respect of which stamp duty is paid or to be paid

(b)* Whether stamp duty is to be paid electronically through MCA21 system ☐ Yes ☐ No ☒ Not applicable

(i) Details of stamp duty to be paid

Amount of stamp duty to be paid (in Rs.)

(ii) Provide details of stamp duty already paid

Type of document/Particulars	Form SH-7
Total amount of stamps or stamp paper (in Rs.)	<input type="text"/>

12. In case maximum stamp duty payable has already been paid, provide details of form(s) filled earlier (SRN or receipt number, form number, date of filling, amount of stamp duty paid)

13. Existing capital structure before taking into consideration the changes vide points 4, 5, 6, 7 and 8 above

(a) Authorised capital of the company (in Rs.)

Break up of Authorised capital

Number of equity shares	<input type="text" value="10,000,000"/>	Total amount of equity shares (in Rs.)	<input type="text" value="1,000,000,000.00"/>
Nominal amount per equity share	<input type="text" value="100"/>		
Number of preference shares	<input type="text" value="0"/>	Total amount of preference shares (in Rs.)	<input type="text" value="0.00"/>
Nominal amount per preference share	<input type="text" value="0"/>		
Number of unclassified shares	<input type="text"/>	Total amount of unclassified shares (in Rs.)	<input type="text"/>

(b) Issued capital of the company (in Rs.)

Break up of Issued capital

Number of equity shares	<input type="text" value="9,993,194"/>	Total amount of equity shares (in Rs.)	<input type="text" value="999,319,400.00"/>
Nominal amount per equity share	<input type="text" value="100"/>		
Number of preference shares	<input type="text" value="0"/>	Total amount of preference shares	<input type="text" value="0.00"/>
Nominal amount per preference share	<input type="text" value="0"/>		

(c) Subscribed capital of the company (in Rs.)

Break up of Subscribed capital

Number of equity shares	<input type="text" value="9,993,194"/>	Total amount of equity shares (in Rs.)	<input type="text" value="999,319,400.00"/>
-------------------------	----------------------------------------	----------------------------------------	---------------------------------------------

Nominal amount per equity share	100		
Number of preference shares	0	Total amount of preference shares (in Rs.)	0.00
Nominal amount per preference share	0		
(d) Paid up capital of the company	(in Rs.)	999,319,400	
Break up of Paid up capital			
Number of equity shares	9,993,194	Total amount of equity shares (in Rs.)	999,319,400.00
Nominal amount per equity share	100		
Number of preference shares	0	Total amount of preference shares (in Rs.)	0.00
Nominal amount per preference share	0		

Attachments

- (1) Copy of the resolution for alteration of capital;
 (5) Altered memorandum of association;
 (8) Optional attachments ,if any

Attach
Attach
Attach

List of attachments

Extract of EOGM.pdf Notice explanatory statement shorter notice consent.pdf MOA_Altered.pdf
Remove attachment

Declaration

I, **DIPANKAR BARUA**, a
Company Secretary of the company declare that all the requirements of the Companies Act, 2013 and the rules made thereunder have been complied with. I am authorized by the board of directors to give this declaration and to sign and submit this Form. It is further declared and verified that

- Whatever is stated in this form and in the attachments thereto is true, correct and complete and no information material to the subject matter of this form has been suppressed or concealed and is as per the original records maintained by the promoters subscribing to the Memorandum of Association and Articles of Association.
- All the required attachments have been completely, correctly and legibly attached to this form.
- I further declare that the company has paid correct stamp duty as per applicable Stamp Act.

To be digitally signed by

* Designation **Company Secretary**

DIPANKAR BARUA
 Digitally signed by
 DIPANKAR BARUA
 Date: 2022.04.29
 14:27:44 +05'30'

* Director identification number of the director; or
 DIN or PAN of the manager or CEO or CFO; or
 Membership number of the company secretary

4033

Certificate by practicing professional

It is hereby certified that I have verified the above particulars (including attachment(s)) from the records I declare that I have been duly engaged for the purpose of certification of this form. It is hereby certified that I have gone through the provisions of the Companies Act, 2013 and rules thereunder for the subject matter of this form and matters incidental thereto and I have verified the above particulars (including attachment(s)) from the original/ certified records maintained by the Company/applicant which is subject matter of this form and found them to be true, correct and complete and no information material to this form has been suppressed. I further certify that:

- i. The said records have been properly prepared, signed by the required officers of the Company and maintained as per the relevant provisions of the Companies Act, 2013 and were found to be in order;
- ii. All the required attachments have been completely and legibly attached to this form.

***To be digitally signed by**

BIMAN
DEBNATH
Digitally signed by
BIMAN DEBNATH
Date: 2022.04.29
14:26:31 +05'30'

- ☐ Chartered accountant (in whole-time practice) or ☐ Cost accountant (in whole-time practice) or
☒ Company secretary (in whole-time practice)

Whether associate or fellow ☐ Associate ☒ Fellow

Membership number or Certificate of practice number

6717

Certificate of practice number

5857

Note: Attention is drawn to the provisions of section 448 and 449 of the Companies Act, 2013 which provide for punishment for false statement and punishment for false evidence respectively.

Modify

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For office use only:

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This e-form is hereby registered

Digital signature of the authorizing officer

Confirm submission

Date of signing

(DD/MM/YYYY)

THE COMPANIES ACT, 1956
COMPANY LIMITED BY SHARES
MEMORANDUM OF ASSOCIATION
OF
ASSAM ELECTRICITY GRID CORPORATION LIMITED

- I. The name of the Company is Assam Electricity Grid Corporation Limited.
- II. The registered office of the Company will be situated in the State of Assam.
- III. The objects for which the Company is established are:-

A. Main objects to be pursued by the Company on its incorporation:

1. To take over the existing transmission system of voltage level of 66kV and above of the ASEB including operation and maintenance of transmission lines and substations and related equipment such as cables, wires, accumulators, plants, motors, meters, apparatus, computers, communication and telemetering equipment and other material connected with transmission of electrical energy, and construction of new transmission lines and substations as may be transferred in pursuance of a transfer scheme to be notified by the Government of Assam in terms of the Electricity Act, 2003 and/or relevant State amendments/ enactments, as the case may be (hereafter referred to as “Applicable Law”).
2. To plan, acquire, establish, design, construct, erect, lay, implement, operate, run, manage, maintain, enlarge, alter, renovate, modernise, work and use a power system transmission network including extra-high voltage (EHV), high voltage (HV) and associated sub-stations covering all voltage level of such sub-stations and transmission lines of 66kV and above in all its aspects, communication and telemetering equipment, SCADA systems, other machinery, equipment and material, connected with wheeling and transmission of electrical energy, its metering, monitoring, construction and operations of new transmission lines and substations.
3. To undertake for and on behalf of others the erection, operation, maintenance, management of extra high voltage, high voltage, lines and associated sub-stations, equipment, apparatus, cables and wires. To design and implement transmission projects. To undertake diagnostic and system studies and to recommend remedial measures.
4. To co-ordinate integrated operation of the state grid system, to act as State Load Despatch Centre as envisaged under the Applicable Law, to discharge its obligations effectively and efficiency as a State Transmission Utility. To interact with Regional and national grids and the associated load despatch centre at Regional/national level as the case may be. To co-ordinate and operate the State Grid in accordance with appropriate Grid Codes, Availability Based Tariff or any other Tariff/Operational Regime in force.
5. To undertake planning and coordination activities in regard to transmission of electricity works connected with the transmission, within and outside the State of Assam and also to the neighbouring countries, and such other functions as may be assigned to the Company by law.

6. To coordinate, aid and advise on the activities of other companies and concerns, including subsidiaries, associates and affiliates, engaged in generation, transmission, distribution, supply and wheeling of electrical energy.
7. To study, investigate, collect information and data, review operations, plan, research, design and prepare project reports, diagnose operational difficulties and weaknesses and advise on the remedial measures to improve and modernise existing transmission and supply lines and sub-stations.
8. To develop communication system for the purpose maintaining, operating and managing the electricity transmission system as well as for use by other agencies on payment of appropriate charges.
9. To provide dark fibres, right of way, duct space, towers for the purpose of grant on lease/rent/sale basis to the licensees of the Telecom Services licensed under Section 4 of Indian Telegraph Act, 1885 on mutually agreed terms and conditions”**

(**Included by alteration of the Memorandum of Association by a Special Resolution dated. 15/09/2017)

B. Objects incidental or ancillary to the attainment of the main objects.

1. To apply for and obtain, maintain and operate License for transmission and wheeling of electricity under the Electricity Act 2003 and any state enactment as the case may be.
2. To file tariff and other petitions before the State and Central Electricity Regulatory Commissions, and to levy and recover tariff as allowed by the regulator: to undertake various actions for seeking, obtaining and maintaining regulatory approvals from State and Central regulators for its activities. In this behalf, filling various documents, pleadings, petitions and affidavits; representing its case and taking other necessary steps to pursue its cases effectively.
3. To enter into any arrangement with the Government of India or any Local or State Government or with Authorities, national, state, local, municipal or otherwise or with any person for the purpose of directly or indirectly carrying out the objects or furthering the interests of the Company or its members; and to obtain from any such Government , State Authority or person any charters, subsidies, loans, indemnities, grants, contracts, decrees, rights, sanctions, privileges, licenses or concessions whatsoever, (whether statutory or otherwise) which the Company may think it desirable to obtain and carry out, exercise and comply with the same.
4. To borrow or receive money or deposits for the purpose of financing the business of the Company either with security or mortgage or other security charged on the undertaking on all or any of the assets of the Company including uncalled capital and to increase, reduce or pay off any such securities.
5. To acquire by purchase, lease, exchange, hire or otherwise, or to construct and maintain factories, works, buildings, and conveniences of all kinds, lands, buildings, apartments, plants, machinery and hereditaments of any tenure or description, situated in India or in any other part of the world and any estate or interest therein and any rights over or connected with land so situated and turn the same to account in any manner as may seem expedient, necessary or convenient to the Company for the purpose of its business.

6. To acquire, possess and undertake the whole or any part of the business assets, property, goodwill, rights and liabilities of any person, firm, society, association, corporation or Company to carrying on any business which the Company is authorized to carry on.
7. To apply/arrange for, obtain, amend, alter and maintain appropriate permissions, directions or orders in terms of the applicable or any other endeavours, steps or measures which may seem calculated directly or indirectly to prejudice the Company's interests.
8. To establish, provide, maintain and conduct or otherwise subsidize research laboratories aid experimental workshops for scientific, technical or researches, experiments and to undertake and carry on directly or in collaboration with other agencies scientific and technical research experiments and tests of all kinds and to process, improve and invert new products and their techniques of manufacture.
9. To promote, encourage, reward in every manner studies and research, scientific and technical investigations and inventions of any kind that may be considered likely to assist, encourage and promote rapid advances in technology, economies, import substitution or any business which the Company is authorised to carry on.
10. To establish, maintain and operate technical training institutions, and hostels for engineers of all types and other technical staff and artisans and mechanics of all types and kinds; to make such other arrangements as may be expedient for the training of all categories of officers, workers, clerks, storekeepers and other personnel likely to be useful to or assistin any business which the Company is authorized to carry on.
11. To sell, improve, manage, develop, exchange, loan or let, under-lease, sub-let, mortgage, dispose of, deal with in any manner, turn to account or otherwise deal with any rights or property of the Company.
12. To accumulate funds and to invest un-borrowed moneys belonging to or lying with the Company and not immediately required in suitable securities and instruments of a reputed bank or financial institution, recognized by the Reserve Bank of India (RBI) in the best interest of the Company.
13. To enter into partnership, consortium or arrangement with any person or Company or body or authority, Indian or foreign including Government for sharing of investments, creation/participation in funds, or sharing of profits, carrying on or engaged in any operation capable of being conducted conveniently in line with the business of the Company.
14. To provide for the amelioration and welfare of persons employed or formerly employed by the Company and the wives, families, dependents or connections of such persons by building or contributing to the buildings of houses, dwellings or by grants of money, pensions; allowances, bonuses or other payments or by creating and from time to time subscribing or contributing to Provident Fund and other associations, institutions, funds or trusts or by helping persons employed by the Company to effect or maintain insurance on their lives by contributing to the payment of premium or otherwise and by providing or subscribing or contributing towards places of instruction and recreation, hospitals and dispensaries, medical and other attendance and other assistance as the Company shall think fit.

15. To sell or dispose of the undertaking of the Company or any part thereof for such consideration as the Company may think fit and in particular for shares, debentures or securities of any other association, corporation or company, to promote or aid in the promotion of any other company or partnership, for the purpose of acquiring all or any of the properties, rights or liabilities of the Company or for any other purposes which may seem directly or indirectly calculated to benefit the Company.
16. To outsource various functions and activities to carry out different works including efficient operations, renovation and modernization, maintenance, capital works and system augmentation and franchised system operation.
17. To promote, develop, implement and operate projects on 'Build, Operate & Transfer', 'Build, Operate, Own & Transfer' and 'Build, Operate, Lease & Transfer' basis.
18. To enter into agreements and contracts for lease, hire, rent, purchase of equipment and for technical, financial, or any other assistance, for carrying out all or any of the objects of the Company.
19. To enter into contracts of indemnity and guarantee, to issue bonds, debentures, debenture stock, and other securities of all kinds and to frame, constitute and secure the same as may seem expedient, with full power to make them transferable by delivery or by instrument of transfer or any otherwise, and either perpetual, terminable, redeemable or otherwise, and to change or secure the same by trust deed or otherwise, on the undertakings of the Company or upon, any specific property and rights, present, of the Company or otherwise.
20. To establish and maintain agencies, subsidiaries, branches and local registers, to procure registration or recognition of the Company and to carry on business in any part of the world and to take such steps as may be necessary to give the Company such rights and privileges in any part of the world as are possessed by local companies or partnership or as may be thought desirable.
21. To subscribe for, underwrite, purchase, or otherwise acquire and to hold, dispose of and deal with the shares, stocks, securities and evidences of indebtedness or the right to participate in profits or other similar documents issued by any government authority, corporation or body or by any company or body of persons and any option or right in respect thereof out of surplus un-borrowed funds.
22. To create any depreciation fund, reserve fund, sinking fund, insurance fund, pension fund or any other fund, whether for depreciation or for repairing, improving, extending or maintaining any of the properties of the Company, for benefit of its employees or redeemable preferences shares or for any other purposes whatsoever conducive to the interests of the Company.
23. To open an account or accounts with any banks or financial institutions recognized by the Reserve Bank of India and to pay into and withdraw money from such account or accounts.
24. To acquire shares, stocks or securities out of surplus borrowed funds in or any company carrying on any business which his Company is entitled to carry on or of any other company or undertaking the acquisition of which may seem likely or calculated directly to promote or advance the interests of or be advantageous or beneficial to the Company in pursuit of its objects, to set up special purpose vehicles and/or subsidiaries for the same and to sell or dispose of or transfer any such shares, stocks or securities.

25. To promote, organize or carry on the business of advisory consultancy services in any field of activity in which it is engaged.
26. To obtain technical legal, Financial, media and communication, training and human capacity building and managerial advisory services as appropriate in furtherance of its objects, to enter into agreements, contracts and Memoranda of Understanding for the same.
27. To promote or concur in the promotion of any company, which shall be considered desirable in furtherance of the object or any objects of the Company. To arrange, secure and make available to its subsidiary and other concerned organizations such facilities, resources, inputs and services as may be required.
28. To carry on any business to optimally utilize its assets and expertise, as also o develop alternate revenue streams in conjunction with and pursuance of its main objects and activities, in connection with any of the Company's objects to enhance the value of or render profitable any of the Company's property, rights or interests.
29. Subject to all applicable regulations and laws to receive money, securities, valuables of all kinds on deposit or safe custody (not amounting to the business of banking as defined under the Banking Regulation, 1949), to issue share capital including preference shares and debentures, to issue bonds and to borrow any money and secure the repayment of any money borrowed or raised or owing by mortgage, charge or lien upon all or any of the Company's property (both presents and future), stocks, debentures (perpetual or otherwise) including its uncalled capital and guarantee performance by the Company or any other such person or body corporate of any obligation undertaken by the Company or any other person or company, as the case may be.
30. To exercise all powers and functions vested under the Applicable Law, including steps/activities:-

- (a) To secure safety of the system as also the consumers and general public;
 - (b) To undertake various works related to transmission, wheeling and load-despatch of electricity;
 - (c) To maintain, operate, augment, renovate and keep in good condition the transmission system;
 - (d) To install, repair, replace, check and read electric meters, as also to prescribe/install protective devices;
 - (e) To ensure compliance with applicable regulations, Grid Code, Supply Code and Standards; and
 - (f) To initiate and pursue prosecution of offenders under Applicable Law and other State and Central enactments in force.
31. Subject to provisions of sections 391 to 394 and 394A of the Companies Act, 1956 to evolve scheme for restructuring or arrangement, to amalgamate or merge or to enter into partnership or into any arrangement for sharing profits, union of interests, co-operation, joint venture or reciprocal concession with any business or transaction which the company is authorised to carry on or engage in.
32. To distribute any of the property of the Company in specie or otherwise among the members, in the event of winding up, subject to the provisions of the Companies Act, 1956.
33. To invest the surplus borrowed funds of the Company, in securities as may from time to time, be determined by the directors and from time to time, to sell or vary all such investments and to execute all assignments, transfers, receipts and documents that may be necessary in that behalf.
34. Generally to do all such other things as may be deemed incidental or conducive to the attainment of the above objects or any of them.

IV. The liability of the members is limited.

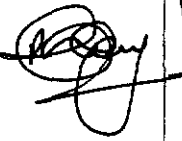
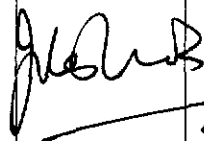

- V. The Share capital of the Company is Rs 3000,00,00,000/- (Rupees Three Thousand Crores only) divided into 30,00,00,000/- (Thirty Crores) Equity shares of Rs 100/- (Rupees one hundred) each, with the rights, privileges and conditions attaching thereto as are provided by the regulations of the Company for the time being. The Company has power from time to time to increase or decrease its capital and to divide the shares in the original or increased capital for the time into several classes and to attach thereto such preferential rights, privileges or conditions as may be determined by or in accordance with the regulations of the company and to vary, modify or abrogate any such rights, privileges or conditions as may be permitted by law.


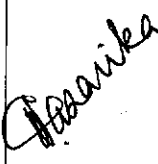

Clause (V) altered via Ordinary Resolution dated 07/04/2022

We the several persons, whose names and addresses are subscribed, are desirous of being formed into a Company in pursuance of this Memorandum of Association and we respectively agree to take the number of shares in the capital of the Company set opposite our respective names :-





CERTIFIED TRUE COPY
of Assam Electricity Grid Code

COMPANY SECRETARY

Sl. No.	Name of subscriber, address, description and occupation, if any	No. of Equity shares taken by each Subscriber	Signature of subscriber	Signature of witnesses and their addresses, description and occupation, if any
1.	Governor of Assam Through Shri. Pramed Kumar Chowdhary, IAS, S/o Late Jai Narain Chowdhary Commissioner & Secretary to the Government of Assam, Power & Department, Dispur, Guwahati - 781006 Occupation - Service	5000 (Five thousand)		
2.)	SH. JITESH KHOSLA S/o SH. LAJPAT RAI IAS KHOSLA CHAIRMAN, ASEB Bijulee Bhawan, Guwahati - 781001 Occupation - Service	1 (one)		
3	Shri Khogendra Nath Boragohain IAS S/o Lt Matiram Boragohain Member (resumed) ASIB, Pathankote Bojnoli Bhawan Guwahati - 781001 Occupation - Govt Service	1 (one)		Witness to the signatures of all subscribers Chowh Shri. Chandra Kumar S/o Late Jai Narain P.D. Chakraborty Road, Silpukhuni, Guwahati - 781001. (Company Secretary in India)

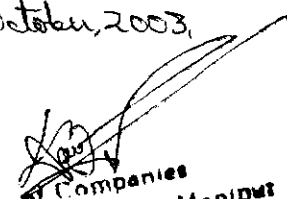
Sl. No.	Name of subscriber, address, description and occupation, if any	No. of Equity shares taken by each Subscriber	Signature of subscriber	Signature of witnesses and their addresses, description and occupation, if any
4	Shri Pinnel Basumatary S/O Shri Christodas Basumatary Member (Finance), ASEB Bijulee Bhawan Guwahati 781001 Occupation: - Service	1 (one)		<p>Witness to the signatures of all subscribers.</p> <p>Shri Chandan Kumar Dorech S/O Late Satya Kumar Dorech P.D. Chakrabarti Road, Silphukhuri, Guwahati-781003. (Company Secretary in Retiree)</p>
5	Shri Indreswar Hazarika S/O Late Padum Chandra Hazarika Chief Engineer (RE), ASEB Narangi, Guwahati-781026 Occupation: Service.	1 (one)		
6	Shri Manoj Kumar Sanyal S/O Lt. Subodh Chandra Sanyal OSD (Reform) Bijulee Bhawan. Guwahati-781001 Occupation: Service	1 (one)		

23/10/03

Sl. No.	Name of subscriber, address, description and occupation, if any	No. of Equity shares taken by each Subscriber	Signature of subscriber	Signature of witnesses and their addresses, description and occupation, if any
7	Girindha Meheran Das S/o Late Ananta Meheran Das (Chief Engineer (T2T)) ASEB, Bijulee Bhawan. Guwahati 781001 Occupation - Service	1 (one)		<p>Witness to the signature of all subscribers:  Shri Chandra Kumar Doreish S/o Late Satya Kumar Doreish P. D. Chaliya Road, Silpukhuri, Guwahati-781003. (Company Secretary in practice)</p>
08.	Shri Himadri Dutta S/o Late Hirendra Sankar Dutta Chief Engineer (Generation) ASEB, Bijulee Bhawan Guwahati - 781001. Occupation - Service	1 (one)		
09	Shri Prasanta Jyoti Borahotoky. S/o Late Gobindra Prasad Borahotoky. Chief Engineer (Distribution) ASEB, Bijulee Bhawan Guwahati - 781001 Occupation - Service	1 (one)		
		5,008 (five thousand and eight)		

Place: Guwahati

Dated, the 22nd October, 2003.


Registrar of Companies
Assam, Arunachal Pradesh, Manipur
Tripura, Mizoram, Meghalaya, Nagaland,
Sikkim 23/10/03.

MINISTRY OF CORPORATE AFFAIRS
RECEIPT
G.A.R.7

SRN : T98355605

Service Request Date : 30/04/2022

Payment made into : State Bank of India

Received From :

Name : BIMAN DEBNATH
Address : PRASANTI PRIDE, BLOCK-C, 4TH FLOOR
PRAKASH CHOUDHURY HOUSING COMPLEX TARUN NAGAR
GUWAHATI, Assam
IN - 781005

Entity on whose behalf money is paid

CIN: U40101AS2003SGC007238
Name : ASSAM ELECTRICITY GRID CORPORATION LIMITED
Address : BIJULEE BHAWAN
PALTAN BAZAR
GUWAHATI, Assam
India - 781001

Full Particulars of Remittance

Service Type: eFiling

Service Description	Type of Fee	Amount(Rs.)
Fee For Form SH-7	Normal	17369000.00
Total		17369000.00

Mode of Payment: Internet Banking - State Bank of India

Received Payment Rupees: One Crore Seventy Three Lakh Sixty Nine Thousand Only

Note: The defects or incompleteness in any respect in this eForm as noticed shall be placed on the Ministry's website (www.mca.gov.in). In case the eForm is marked as RSUB or PUCL, please resubmit the eForm or file Form GNL-4(Addendum), respectively. Please track the status of your transaction at all times till it is finally disposed off. (Please refer Rule 10 of the Companies (Registration offices and Fees) Rules, 2014) It is compulsory to file Form GNL-4 (Addendum) electronically within the due date whenever the document is put under PUCL, failing which the system will treat the document as invalid and will not be taken on record in accordance with Rule 10(4) of the Companies (Registration offices and Fees) Rules, 2014

Annexure-VII
Details of Contingency Works for
FY 2022-23

Details of Utilisation of Contingency Fund for the FY 2022-23

Sl. No	Circle	Name of the work		AA	FC			TOTAL	Proposed date	Approved Date	Release	
								27100000				
	CGM, LAR	FC for repairing of tower legs and members of 132kv Dhaligaon-APM line at Loc no-113,114 and 115			292503			292503	20.09.2022			
	CGM,O&M, LAR, AE GCL	Repairing of tower legs and bracing of 30 nos tower at TL under ILMSD, Kahilipara		1239000				1239000	07.10.2022			
	CGM, LAR	Post facto FC for repairing of tower stubs for 20kv DC Samaguri Sarusajai Transmission line at Loc no 55 & 59			82428			82428	27.06.2022	28.06.2022		
		Post facto FC for repairing of tower stubs for 20kv DC Samaguri Sarusajai Transmission line at Loc no 65 & 66			82,428.00			82428	27.06.2022			
		FC for repairing of tower stubs for 20kv DC Samaguri Sarusajai Transmission line at Loc no 57 & 68			2,47,460.00			247460	27.06.2022			
	CGM, LAR	AA for emergency replacement of damaged conductor from Loc no 72(T) to 74(T) at Hatisila hill side of 132kv Kahilipara-Capital-Narengi-CTPS line			3,15,299.00			315299	09.11.2022			
		AA for proposal for emergency replacement of damaged conductor from Loc no-41(T) to 41(a)(T) inside ASEB Narengi Compound of 132kv Kahilipara Narengi TL			1,86,348.00			186348	09.11.2022			
	CGM(O&M), CAR, AEGCL	AA& FC for repairing of damaged tower footing at location 210 of 132kv DC Biswanath Chariali-Gohpur line			89,161.00			89161	15.07.2022	18.07.2022		
		AA for retensioning of all the six conductors in between Loc no 324(B+0) and Loc no325(B+0) of 220kv Mirza Boko Agia Transmission line to increase ground clearance			84,132.00			84132	06.10.2022			

	CGM, LAR	AA for retensioning of all the 6 conductors in between Loc no 7(QB+6) and Loc no 9(QC+0) of 220kv Sarusajai-Khanapara GIS and 220kv Sarusajai-Langpi-I circuit to increase ground clearance				171905			171905	06.10.2022			
		AA for reyensioning of all the six conductors in between LOC No 9(QC+0) and Loc no(QB+0) of 220kv Sarusajai-Langpi-II circuit to increase the ground clearance				315514			315514	06.10.2022			
		FC for emergency repairing of tower stub for 132 kv Sishugram-Sipajhar TL at concrete level of location no 4,5,6,7,8,64,65,66,67,68&69			695218				695218	09.11.2022			
		AA for repairing of damaged & rusted tower legs of 132kv Rangia Barnagar TL	357391						357391		23.07.2022		
		Post facto AA & FC for shifting & reshifting of OPGW at Loc-217 of Rangia Barnagar TL	2,98,738.00						298738		23.07.2022		
	CGM, LAR	FC for temporary protection of tower at LOC No 146 of 132kv Dhaligaon Gossaigaon SC TL			1,43,299.00				143299	26.10.2022	27.10.2022		
		FC for proposal for temporary protection of tower at LOC No 41 of 132kv Gossaigaon Gauripur SC TL			1,09,032.00				109032	26.10.2022	27.10.2022		
		FC (Post facto) for temporary protection of tower at LOC No 96(B+0) of 132kv Dhaligaon APM Line			2,49,735.00				249735	26.10.2022	27.10.2022		
	CGM, LAR	AA for emergency repairing of tower stubs of 220kv Langpi-Sarusajai Transmission line at Loc No 18,113,238 & 285	1,93,176.00						193176	09.08.2022	11.08.2022		
		AA for emergency repairing of tower stubs of 220kv SC Samaguri - Sarusajai Transmission line (CTPS-Khanapara Section) at Loc no 01,06,11,24 & 49	2,06,070.00						206070	09.08.2022	11.08.2022		

		AA for emergency repairing of tower stubs for 132kv SC Chandrapur - Baghjap Transmission line at Loc no 18,29,30,35,36,37,38,39,40,41,42 & 70			4,94,568.00					494568	09.08.2022		
	CGM,O&M(CAR), AEGCL	AA & FC for PCC & RCC work(muffling) up to 1.2 mtr from ground level of Loc no 188,191,209,225,227,240,243,249,250 and 251 of 132kv DC B Chariali-Gohpur line				366555				366555	09.08.2022	11.08.2022	
FC		AA & FC (Post Facto)for construction of temporary protection by using bamboo palisade with gunny bags filled with sand/soil to the tower base of Loc no 102 of 132kv Hailakandi-Dullavcherra line				433272				433272	12.08.2022	18.08.2022	433272
	CGM,O&M(CAR),AEGCL	AA & FC(Post facto) for re-stringing of top phase conductor at Loc no 16-18 of 132kv Samaguri -Sankardev DC Line				59230				59230	18.08.2022		59230
	CGM(O&M), LAR,AEGCL	FC for the proposal for temporary protection of tower at Loc no 127 of 132kv Dhaligaon SC TL				119416				119416	26.10.2022	27.10.2022	
	CGM(O&M), CAR,AEGCL	AA&FC(Post facto) for rectification of fault at Loc no 48 of 132kv Samaguri-Sankardevnagar DC Line					34558			34558	06.09.2022		
	CGM(O&M), CAR,AEGCL	AA for construction of A+3 towers at LOC NO 47 of 132kv Samaguri-Sanakardevnagar DC line			1331497					1331497	06.09.2022		
	CGM,LAR ,AEGCL	AA for muffling of 20 towers (80 LEGS) in the 132kv Mirza-Azara TL			733110					733110	14.10.2022	19.10.2022	
		Post Facto AA&FC of flood affected tower Loc no 109(A+0) of 220kv Samaguri -Jawaharnagar and 220kv Samaguri-Sonapur line				491158				491158	21.10.2022	27.10.2022	

	CGM, CAR	Post Facto AA&FC for feasibility study,survey and consultancy of flood affected tower location no 109(A+0) of 220kv Samaguri-Jawaharnagar and 220kv Samaguri-Sonapur line			112100				112100	21.10.2022	27.10.2022	
		AA for construction of tower type B+6 at LOC No 109 of 220kv Samaguri-Jawaharnagar and 220kv Samaguri-Sonapur line		3020758					3020758	01.11.2022		
	CGM,O&M ,CAR,AEGCL	Post Facto AA&FC for feasibility study,survey and consultancy of 220kv Samaguri-Mariani Ckt-I SC line for newly proposed two numbers of B+3 tower in between LOC 29-30				112100			112100	15.11.2022		
	CGM,O&M ,CAR,AEGCL	Post Facto AA&FC for feasibility study,survey and consultancy of 132KV Samaguri-Sankardev nagar DC line for newly proposed A+3 tower in between LOC 47-48 near Puronigudam,Dist-Nagaon				112100			112100	15.11.2022		
	CGM,O&M ,LAR,AEGCL	AA for construction of 220kv D/C (DA+0) Type tower in place of river eroded tower at Loc no 31 of 220kv Salakati-Rangia line		5157084					5157084	01.11.2022		
	CGM,O&M ,LAR,AEGCL	AA for feasibility study,survey and consultancy of 220kv Sonapur LIL DC TL due to erosion of tower at LOC no 15 & 16 at Sonapur		112100					112100	24.11.2022		
			22,94,375.00	1,08,49,117.00	33,69,823.00	15,35,128.00	-		18048443			492502
			-2294375	-10849117	-3369823	-1535128	0		9051557			

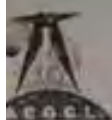
LAST FY
TOTAL

18048443
9051557

Annexure-VIII
Details of Cyber Security for FY
2023-24

AEGCL CYBER SECURITY PROVISIONAL BUDGET ESTIMATE FY 2023-2024						
Sl No	Description	In Details	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	Firewall	Firewall In Offices of AEGCL (33 Offices @ Rs. 3,49,993.48 each)	33	Nos	3,49,993.48	1,15,49,784.84
2	End Point Security (Antivirus)	End Point Security (Antivirus) In every PC and laptops of all the Office under AEGCL (500 PC @ Rs. 740 each).	500	Nos	740	3,70,000.00
3	Training and Development	Cyber Security Training To Employees of AEGCL(Rs. 39000 each for 100 Employees) Basic Level Trainig Conducted By NPTI (2 weeks training Rs.39000 for one Employee)	100	Nos	39,000	39,00,000.00
4	Observation of National Cyber Security Awareness Month	National Cyber Security Awareness Month , Conducted Every Year By AEGCL in the Month of October As directed By Ministry Of Power , IT and CS Division	1	Nos	1,50,000	1,50,000.00
		Total				1,59,69,784.84
						28,74,561.27
		Grand Total including GST				1,88,44,346.00

Total Rupees: One Crore eighty eight lakhs forty four thousand three hundred forty six only



File No: AEGCL/MD/IT/Part-XV/2020/35

Date: 15.07.2022

To,

M/S CHANDRA ENTERPRISES
 Esha Por, 2nd Floor, Kalapahar
 Cycle Factory, Guwahati-16
 Tel No : (0361-2473135)

Sub: Work Order for "Non-Comprehensive Annual Maintenance Contract for IT items at AEGCL HQ"

Scheme: GA fund for FY 2022-2023(IT related works)

Ref: NIT No: AEGCL/MD/IT/Part-XV/2020/76 dtd 05.05.2022

Dear Sir,

With reference to the subject cited above, AEGCL is pleased to award the Annual Maintenance Contract for IT items at AEGCL HQ Bijulee Bhawan. The details of the AMC are as below

A. Detailed Specification:

Sl No.	Particulars	Quantity(Nos)	Rate(without GST) in Rs	Amount(in Rs)
1.	Servers along with all accessories	1	1,017	1,017.00
2.	Desktops along with all accessories(UPS, Printer, Scanner)	80	400	32,000.00
3.	Laptops along with all accessories(UPS, Printer, Scanner)	83	400	33,200.00
4.	Networking devices like Router, Switch, Access point and LAN Connectivity etc.	14	300	4,200.00
5.	Antivirus, Quick Heal Total EndPoint Security	163	740	1,20,620.00
			Total Amount(Without GST)	1,91,037.00
			15% GST	28,655.55
			Total Amount With GST	2,19,692.55
			Total Amount(Round off)	2,19,693.00

Total Value of the Order is Rs. 2,19,693.00 (Rupees Two lakh Twenty-Five Thousand and Four Hundred Twenty Four) only including GST

B. Terms & Conditions:

1. Service:

Desktops, laptops, printers, scanner, UPS: Maintenance and rectification of the machine including operating system, application and any changes in the configuration as and when required.

2. For Network:

- Entire LAN connection maintenance and set-up of new LAN connection.
- Maintenance of Router, Switches, Hubs and wireless Access Points (Note: Setup and changing configurations needs to be done by the vendor)

3. Spares: Any spares/component that may be required for servicing/ maintenance PC's, Printers, UPS and networking devices will be provided by AEGCL. Alternatively, if spares have to be provided by AMC provider, the cost of spare will be borne by AEGCL.

4. Antivirus: Renewal of license for 1 year as and when required (Quick Heal Total Endpoint Security). Payment will be made as per total number of antivirus license installation during the contract year.



ASSAM ELECTRICITY GRID CORPORATION LIMITED
OFFICE OF THE MANAGING DIRECTOR
Regd. Office: (FIRST FLOOR) BIJULEE BHAWAN, PALTANBAZAR, GUWAHATI - 781001
CIN: U41101AS2003SC0007238 G3111; 18AA4CA4973J9Z3
PHONE: 0361-2739520 Web: www.aegcl.co.in

5. **Number of calls:** 1 preventive maintenance call every 3 (Three) months and service call as and when required in 12 months of AMC. Call must be attended within 2 hour after the complaint registered via any telephonic call, WhatsApp, email etc.
6. The AMC Provider should have a proper complaint – call-registration procedure, follow-up etc and provide traceability of all complaints from registration to call clearance. The AMC Provider shall issue a customer service slip after every service visit, clearly indicating the type of call, time of attendance of the fault by the AMC Provider, nature of fault observed and whether cleared or not, if under further observation, then whether normal usage can be continued, and details of subsequent visit after 2 days of observation, closure of call, clearance of fault and any other relevant information.
7. **Validity:** Will remain valid for one (1) year from the date of issue of this order.
8. **AEGCL HQ Office include:** Entire 1st Floor of Bijulee Bhawan, Ground Floor Pension Trust Part, 2nd Floor Pension Section, IT wing, DGM civil office, Nodal office, Bijulee Bhawan Maintenance and T&C, Narengi (Temporary).
9. **Payment:**
 - i) Payment for AMC shall have to be made on completion of every 3(Three) months. Bills for the same will be raised and submitted by the firm every quarter (3 months)
 - ii) Payment of renewal of antivirus license will be made on actual renewal during that quarter (3 months)
 - iii) Payment to be made from O/o the MD, AEGCL Bijulee Bhawan on received of verified bills
10. Numbers of equipment may be increased or decreased in future based on the availability of the equipment at that time.
11. The term and condition which are (not) mentioned herewith may be refer to bid document as well as contract agreement.

Please acknowledge the receipt of this order.

Thanking you,

Yours faithfully,

Chief General Manager (T&C and Communication)
AEGCL, Narengi, Guwahati-26.

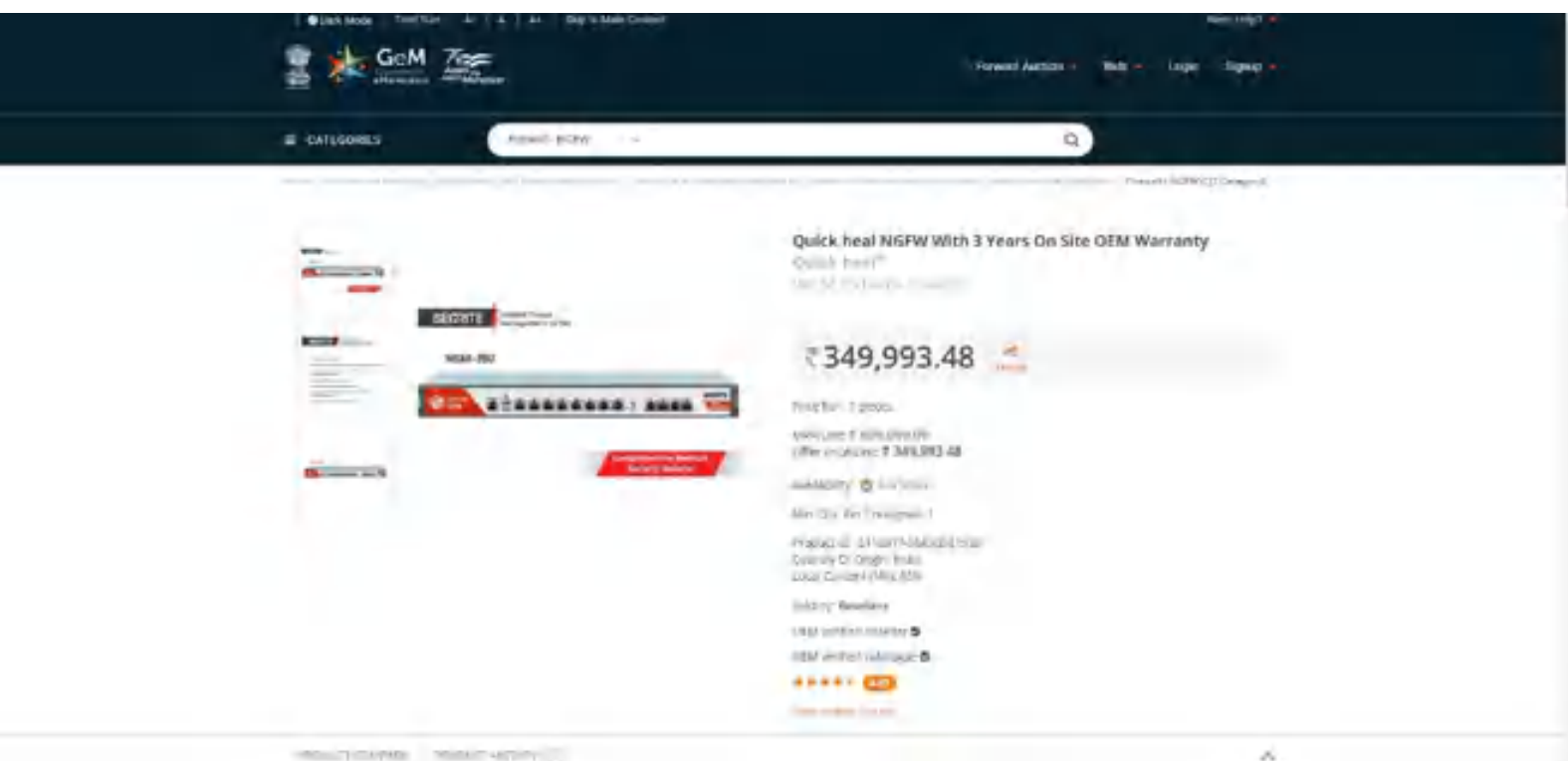
Memo No: AEGCL/MD/IT/Part-XV/2020/

Date: .07.2022

Copy to:

1. PS to the MD, AEGCL, Bijulee Bhawan, Paltan Bazar, Ghy-01 for kind information to MD, AEGCL
2. The Chief General Manager (FA&A), AEGCL, Bijulee Bhawan, Paltan Bazar, Guwahati-781001 for kind information. Budget Head is QA Head of HQ for the budget provision 2022-2023
3. The General Manager (IT), AEGCL, Bijulee Bhawan, Paltan Bazar, Guwahati-781001 for information.
4. The Deputy General Manager (IT), AEGCL, Bijulee Bhawan, Paltan Bazar, Guwahati-781001 for information and necessary action.

Chief General Manager (T&C and Communication)
AEGCL, Narengi, Guwahati-26.



Annexure-IX

**Details of Capex & Capitalisation
from FY 2021-22 to FY 2023-24 in
AERC format**

Details of Capital Expenditure & Capitalisation - AEGCL

Sl. No.	Particulars	Capital Expenditure			Capitalisation		
		FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Projected	Actual	Estimated	Projected
1	AIIB	111.05	173.61	491.81	6.83	2.89	0.00
2	ADB	1.57	1.00	0.00	44.23	29.37	0.00
3	NERPSIP	0.00	0.00	0.00	0.00	0.00	689.76
4	Annual Plan/SOPD	18.53	3.98	4.00	23.95	9.65	1.39
5	PSDF	2.15	13.00	16.07	15.02	16.70	20.15
6	TDF	21.17	22.65	0.00	21.04	46.73	121.70
7	Deposit work	1.05	9.91	115.43	17.76	32.33	12.39
8	AIFA	19.17	11.53	20.21	21.81	16.00	37.03
9	AIIMS	0.00	8.27	33.69	0.00	0.00	42.02
10	NEC	0.00	0.00	0.00	8.78	0.00	0.00
11	NLCPR	0.27	0.00	0.00	0.46	0.00	0.00
12	Internal Accrual Equity	2.38	5.04	0.00	14.32	7.42	0.00
Total		177.34	248.99	681.21	174.21	161.09	924.44

Funding of Capitalisation - AEGCL

Funding of Capitalisation

Sl. No.		Particulars	FY 2021-22 (Actual)				FY 2022-23 (Estimated)				FY 2023-24 (Projected)			
			Grant /Consumer Contribution	Equity	Loan	Total	Grant /Consumer Contribution	Equity	Loan	Total	Grant /Consumer Contribution	Equity	Loan	Total
1		AIIB	4.92		1.91	6.83	2.08		0.81	2.89				0.00
2		ADB	31.85		12.38	44.23	21.15		8.22	29.37	-	-	-	0.00
3		NERPSIP		-		0.00		-		0.00	689.76	-	-	689.76
4		Annual Plan/SOPD			23.954	23.95			9.65	9.65		-	1.39	1.39
5		PSDF	15.02	-	-	15.02	16.70			16.70	20.15			20.15
6		TDF	21.04			21.04	46.73			46.73	121.70			121.70
7		Deposit work	17.76			17.76	32.33			32.33	12.39	-		12.39
8		AIFA	21.81			21.81	16.00			16.00	37.03	-	-	37.03
		AIIMS			-	0.00		-	-	0.00	42.02	-	-	42.02
		NEC	8.78			8.78				0.00				0.00
		NLCPR	0.46			0.46				0.00				0.00
		Internal Accrual Equity	8.97		5.35	14.32		7.42		7.42				0.00
		TOTAL	130.61	0.00	43.60	174.21	134.99	7.42	18.68	161.09	923.05	0.00	1.39	924.44

Annexure-X
Details of Incentive for FY 2015-16

ANNEXURE A

ANNUAL ACCOUNTS

2015-16



**ASSAM ELECTRICITY GRID
CORPORATION LIMITED**


STATEMENT OF PROFIT & LOSS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2016

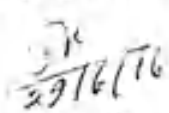
(₹ Lakh)

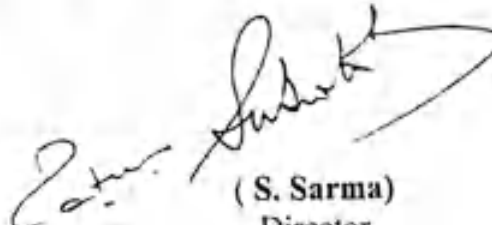
Particulars	Notes	Year ended 31st March, 2016	Year ended 31st March, 2015
I. INCOME			
(a) Revenue From Operations	19	53,792	46,252
(b) Other Income	20	8,599	9,324
Total Revenue ::		62,391	55,576
II. EXPENDITURE			
(a) Employee Benefits Expense	21	13,186	13,006
(b) Finance Costs	22	3,897	3,090
(c) Depreciation and Amortization Expenses	23	3,682	6,885
(d) Other Expenses	24	61,600	40,650
Total Expenses ::		82,365	63,631
Profit (Loss) Before Tax (I-II)		(19,974)	(8,055)
III. TAX EXPENSES			
(a) Current Tax		-	-
(b) Deferred Tax		-	-
Profit (Loss) for the period		(19,974)	(8,055)
IV. Earnings per share :			
(a) Basic (In ₹)	25	(200)	(81)
(b) Diluted			
Significant Accounting Policies	I		

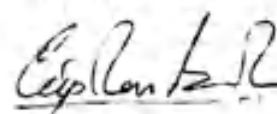
The accompanying notes form an integral part of these financial statements.

For and on behalf of the Board


(G.K. Das)
Managing Director


(S.N. Kalita)
CGM (F&A)


(S. Sarma)
Director


(D. Barua)
Company Secretary

5th of Oct. 2016

ASSAM ELECTRICITY GRID CORPORATION LIMITED

19. REVENUE FROM OPERATIONS

(₹ Lakh)

Particulars	Year ended 31-03-2016	Year ended 31-03-2015
Wheeling Charges (Transmission Charges) From APDCL	53,792	46,252
Total	53,792	46,252

19.1 Revenue from Wheeling Charge of ₹. 537, 92, 00,000 /- including SLDC Charge of ₹ 2,65,00,000 /- as approved by the AERC was billed to APDCL.

19.2 The quantitative details of electrical energy transacted by the Corporation during the FY 2015-16 along with previous year were as follows:

Particulars	Energy Handled (in MU)	
	2015-16	2014-15
Power available at AEGCL periphery	7857.25	7232.82
Power injected to DISCOM :		
APDCL 2015-16 7571.24	7571.24	6955.08
Transmission Loss in AEGCL Network	286.01	277.74
Percentage of Transmission Loss	3.64	3.84

20. OTHER INCOME

(₹ Lakh)

Particulars	Year ended 31-03-2016	Year ended 31-03-2015
Interest		
Interest on investment in the form of Fixed Deposits with Banks	1,891	3,407
Interest on Investments in any other Investments	-	15
Interest from Banks	62	90
Dividend		
Dividend from Investment in liquid fund	-	1,070
Net Gain on Sale of Investment		
Short Term Capital Gain from liquid fund	-	-
Long Term Capital Gain from liquid fund	-	-
Others		
Rebate received from PGCIL	243	411
Profit on sale of fixed assets	-	-
Hire Charges from contractors	12	19
Sale of scrap	-	27
Misc. receipts	6,319	4,128
Rentals from staff quarters	22	58
Income from Investment	51	99
Total	8,599	9,324

ANNEXURE B



**ASSAM ELECTRICITY REGULATORY COMMISSION
(AERC)**

TARIFF ORDER

**TRUE-UP FOR FY 2014-15 & FY 2015-16
AND ARR FOR FY 2016-17 to FY 2018-19
AND TARIFF FOR FY 2017-18**

**Assam Electricity Grid Corporation Limited
(AEGCL)**

Petition No. 35/2016

Sr. No	Particulars	2014-15		
		Tariff Order	Proposed by AEGCL	Approved after truing up
b	R&M Expense	8.73	11.53	11.53
c	A&G Expense	3.98	5.14	5.14
3	SLDC Charges	2.12	2.54	2.54
4	BST for Pension Trust Fund	133.42	139.10	139.10
5	Depreciation	13.80	43.31	9.16
6	Interest and finance Charges	14.05	30.90	15.93
7	Interest on Working Capital	14.92	17.29	15.11
8	Income Tax	-	-	-
9	Net Prior Period Expenses	-	(20.04)	(26.18)
10	Other Debits	-	1.26	1.25
11	Return on Equity	13.99	13.99	13.99
12	Less: Non-tariff Income	64.73	93.24	93.24
13	Total ARR	485.53	548.82	491.37
14	Add: Gap/(Surplus) for FY 2011-12 and FY 2012-13	(23.01)	-	(23.01)
15	Net ARR	462.52	548.82	468.36
16	Revenue from Operations	462.52	462.52	462.52
17	Gap/(Surplus)	-	86.30	5.84

The Revenue Gap of Rs. 5.84 Crore approved after truing up for FY 2014-15, has been considered during the Control Period for recovery.

- 4.15.2 Considering the above heads of expense and revenue as per the Audited Accounts for FY 2015-16 and after due prudence check, the net ARR and Revenue Gap/(Surplus) for FY 2015-16 is shown in the following Table:

Table 14: ARR approved in the Truing up for FY 2015-16 (Rs. Crore.)

Sr. No.	Particulars	2015-16		
		Tariff order dated July 24, 2015	Proposed by AEGCL	Approved
1	PGCIL Charges	254.55	441.43	441.43
2	O&M expenses	151.91	149.16	149.15
a	Employee Expenses	138.90	130.34	130.33
b	R&M Expense	8.75	11.53	11.53

Sr. No.	Particulars	2015-16		
		Tariff order dated July 24, 2015	Proposed by AEGCL	Approved
c	A&G Expense	4.26	7.29	7.29
3	SLDC Charges	2.65	1.68	1.68
4	BST for Pension Trust Fund	154.92	151.42	151.42
5	Depreciation	12.45	48.05	10.58
6	Interest and finance Charges	17.98	38.97	21.93
7	Interest on Working Capital	17.65	23.46	17.21
8	Income Tax	-	-	-
9	Net Prior Period Expenses	-	3.98	(1.09)
10	Other Debits	-	0.19	0.01
11	Return on Equity	13.99	13.99	13.99
12	Less: Non-tariff Income	55.71	85.99	85.99
13	Total ARR	570.39	786.34	720.33
14	Add: Gap/(Surplus) for True-up for FY 2013-14	(32.46)	-	(32.46)
15	Net ARR	537.93	786.34	687.87
16	Revenue from Operations	537.93	537.92	537.92
17	Gap/(Surplus)	-	248.42	149.95

The Revenue Gap of Rs. 149.95 Crore approved in the truing up for FY 2015-16 has been considered during the Control Period for recovery.

The Commission has considered the recovery of Revenue Gap/(Surplus) arising out of Truing up for FY 2014-15 and FY 2015-16 separately in Chapter 6 of this Order.

Regulations, 2006 and subject to prudence check.

4.2 Transmission Loss

- 4.2.1 AEGCL submitted the Transmission Loss of 3.84% for FY 2014-15 and 3.64% for FY 2015-16, as shown in the following Table:

Table 4: Transmission Loss as submitted by AEGCL

Sr. No.	Particulars	FY 2014-15		FY 2015-16	
		Approved in Tariff Order	Actual	Approved in Tariff Order	Actual
1	Energy Available at G<=>T interface (MU)	7,232.82	7,232.82	7,960.73	7,857.25
2	Energy Transmitted at T<=>D interface (MU)	6,955.08	6,955.08	7,670.96	7,571.24
3	Transmission Loss (%)	3.84%	3.84%	3.64%	3.64%

- 4.2.2 The Commission has verified the Transmission loss through documentary evidences submitted by AEGCL and found that the Transmission Loss submitted is correct.

Hence, the Commission accepts the submission of AEGCL and approves the Transmission Loss of 3.84% for FY 2014-15 and 3.64% for FY 2015-16.

4.3 Revenue from Operations

- 4.3.1 AEGCL has claimed Rs. 462.52 Crore and Rs. 537.92 Crore as revenue from operations for FY 2014-15 and FY 2015-16, respectively. The same amount is reflected in the Audited Accounts of AEGCL for FY 2014-15 and FY 2015-16.

The Commission approves the actual revenue of Rs. 462.52 Crore and Rs. 537.92 Crore in the Truing up for FY 2014-15 and FY 2015-16, respectively.

4.4 Non-Tariff Income

- 4.4.1 The Commission had approved the Non-Tariff Income at Rs. 64.73 Crore for FY 2014-15 and Rs. 55.71 Crore for FY 2015-16 in the respective Tariff Orders, whereas AEGCL has submitted Non-Tariff Income of Rs. 93.24 Crore for FY 2014-15 and Rs.

85.99 Crore for FY 2015-16, which is as per the Audited Accounts.

The Commission approves the Non-Tariff Income at Rs. 93.24 Crore and Rs. 85.99 Crore in the truing up for FY 2014-15 and FY 2015-16, respectively.

4.5 PGCIL Charges

4.5.1 The Commission had approved PGCIL Charges of Rs. 216.30 Crore for FY 2014-15 and Rs. 254.55 Crore for FY 2015-16 in the respective Tariff Orders, against which AEGCL has claimed actual PGCIL Charges of Rs. 268.42 Crore for FY 2014-15 and Rs. 441.43 Crore for FY 2015-16.

4.5.2 The Commission has duly scrutinised PGCIL Charges claimed by AEGCL with copies of monthly bills submitted for FY 2014-15 and FY 2015-16. The Commission notes that PGCIL Charges claimed are gross billed amount. However, rebate received and credit given to Open Access Consumers have been shown separately under Non-Tariff Income. The PGCIL Charges are to be paid in accordance with the Orders issued by the CERC. The actual expenditure incurred by AEGCL towards PGCIL charges as per the Audited Accounts is Rs. 268.42 Crore and 441.43 Crore for respective financial years.

Therefore, the Commission approves PGCIL Charges of Rs. 268.42 Crore for FY 2014-15 and Rs. 441.43 Crore for FY 2015-16 in the truing up.

4.6 O&M Expenses

4.6.1 Employee Expenses

The Commission had approved Rs. 128.95 Crore and Rs. 138.90 Crore for FY 2014-15 and FY 2015-16, respectively, towards employee expenses in the respective Tariff Orders, whereas AEGCL has claimed Rs. 128.62 Crore and Rs. 130.33 Crore towards employee expenses for FY 2014-15 and FY 2015-16, respectively, based on the Audited Accounts.

The actual employee expenses are lower than the approved employee expenses in FY 2015-16 and almost equal to the approved employee expenses in FY 2014-15. Hence, the Commission accepts AEGCL's submission and approves Rs.

ANNEXURE - C



कायालय, प्रधान महालेखाकार (लेखा-परीक्षा), असम,
बेलतला, गुवाहाटी -781 029

OFFICE OF THE PRINCIPAL ACCOUNTANT GENERAL (AUDIT), ASSAM
MAYDAMGAON, BELTOLA, GUWAHATI-781029

स.ज.नो. ES/PSU/POWER/4-1/2019-20/255

दिनांक/Date: 25/06/2019

To,

The Managing Director,
Assam Electricity Grid Corporation Limited, (AEGCL) Bijulaa, Bhawan,
Guwahati- 781001

25 JUN 2019

विषय:- अप्रैल 2015 से मार्च 2018 तक की अवधि के लिए निरीक्षण रिपोर्ट.

Sub: - Inspection Report for the period from April 2015 to March 2018.

मुख्य/Sir,

इसके साथ आपके कार्यालय के 01-04-2015 से 31-03-2018 तक के अवधि के लिए निरीक्षण प्रतिवेदन को आपके आवश्यक कार्रवाई हेतु अर्पित किया जा रहा है। इस निरीक्षण प्रतिवेदन पर आप के उत्तर एक महीने के भीतर इस कार्यालय को आवश्यक कार्रवाई हेतु अवधीत करें।

With reference to, the subject cited above, I am to send herewith a copy of Inspection Report of your office for the period from April 2015 to March 2018, the reply on which may kindly be furnished within one month of its receipt.

भवदीय/Yours faithfully,

संलग्नक: यथास्थिति

Encl. as stated

ब.ले.प.अ.(पा.)/Sr. Audit Officer (C)/ES-PSU

REGISTERED पंजीकृत डाक:

संजी स.ज.नो. ES/PSU/POWER/4-1/2019-20/255-257

दिनांक/Date: 25/06/2019

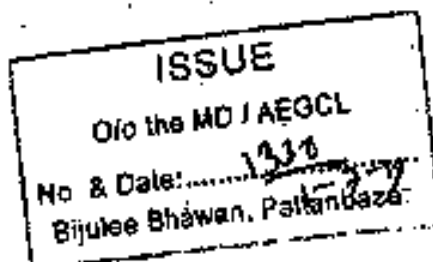
Copy forwarded to for information and necessary action to:

सर्वोपरी जानकारी के लिए और आवश्यक कार्रवाई के लिए अर्पित:

1. The Principal Secretary, Power Department, Government of Assam, Janta Bhawan, Dispur, Guwahati-6
प्रधान सचिव, विद्युत विभाग, असम सरकार, जनता भवन, दिसपुर, गुवाहाटी -6
2. The Principal Secretary, Finance Department, Government of Assam, Janta Bhawan, Dispur, Guwahati-6
प्रधान सचिव, वित्त विभाग, असम सरकार, जनता भवन, दिसपुर, गुवाहाटी -6

-8d-

ब.ले.प.अ.(पा.)/Sr. Audit Officer (C)/ES-PSU



From the table above, it is observed that during the year 2015-16 to 2017-18, the expenditure of the Company increased from ₹823.65 crore in 2015-16 to ₹ 948.52 crore in 2017-18 (15.16 percent) while revenue from operation during the period increased from ₹ 537.92 crore to ₹ 1,194.99 crore (122.34 percent) in 2017-18. During the year 2017-18, the Company could turn into profit of ₹ 452.19 crore from its consecutive losses of ₹ 199.74 crore in 2015-16 and ₹ 379.22 crore in 2016-17. Main reason for such profit was increase of operational revenue from ₹ 537.92 crore in 2015-16 to ₹ 1,194.99 crore in 2017-18.

The main sources of income for the Company were: (i) transmission of power charges from generating stations to distribution network; (ii) Interest from term deposits, advances to staff and miscellaneous receipts.

An exit meeting was held with the Managing Director, AEGCL on 26 April 2019 after conclusion of the Compliance Audit wherein audit observations were discussed with the senior Management. During the discussion, the Managing Director agreed with the audit observations and assured that replies to the audit observations would be furnished at the earliest. He also assured that necessary corrective measures would be taken wherever required.

I. Receipts and expenditure: Receipt and expenditure of the Company for the year 2015-16 to 2017-18 in terms of salaries and non-salaries are as given below table:

Sl. No.	Year	Receipts	Expenditure (₹ in crore)		
			Non-salary	Salary	Total
1.	2015-16	584.44	472.35	10.77	483.12
2.	2016-17	1040.40	835.43	10.79	846.22
3.	2017-18	1387.06	993.58	12.20	1005.78

From the table above, it is noticed that the non-salary expenditure incurred was more than the salary expenditure for the staff of the corporate office. However, total yearly expenditures incurred were within the total yearly receipts. Above receipts and expenditures were not inclusive of all kind of capital receipts and expenditure as the payments for ADB and PSDF projects were directly made to the respective Contractor by the sanctioning authority.

J. DISCLAIMER STATEMENT: - "The Inspection Report has been prepared on the basis of information furnished by Office of the Managing Director, AEGCL for the period from 01.04.2015 to 31.03.2018. The Office of the Principle Accountant General (Audit), Assam, disclaims any responsibility for any misinformation and/ or non-information on the part of the auditee".

Para-1: Loss of revenue due to erroneous claim of incentives: ₹ 31.70 crore.

As per AERC Regulation, on account of maintaining higher transmission system availability than the normative system availability, the AEGCL is entitled for incentives amount in addition to Aggregate Revenue Requirement (ARR).

During the year 2015-16, the AEGCL claimed incentive amounting to ₹ 10.60 crore from the APDCL for maintaining higher transmission system availability. Similarly, an amount

of ₹ 10.50 crore was claimed as incentive during the year 2016-17. Both the amounts were accounted in the books of accounts of respective years as 'Miscellaneous Receipts' under the head 'Other Income'.

Incentive amounts were allowed by the AERC under tariff orders as incentives for higher transmission system availability maintained by the Company. Therefore, it was in addition to the ARR and it should have been considered as additional income from tariff.

While filing tariff petitions with the AERC for two years respectively, incentive amounts ₹10.60 crore (2015-16) and ₹ 10.50 crore (2016-17) claimed by the Company were erroneously included as Non-Tariff Income of the Company and were deducted from the approved ARR of AERC. Hence, there was no actual benefit coming from the incentive in favour of the Company for maintaining higher transmission system availability.

The Company, however, did not claim incentive in its true up tariff petition for the year 2015-16 which led to loss of incentive income by ₹ 21.20 crore¹. Again, for deduction of ₹ 10.50 crore from the ARR in terms of non-tariff income, the actual ARR was reduced to the extent of the same amount for the year 2016-17. The Company realized the mistake and filed petition before AERC for rectification in the true up tariff order for the year 2016-17. After re-computation as per Regulation 71 of AERC Multi Year Tariff (MYT) Regulation 2015, the AERC allowed ₹ 4.86 crore as incentive in addition to ARR. The AERC insisted on keeping ₹ 10.50 crore as non-tariff income since it was erroneously included as Miscellaneous Receipts under the head Other Income in the audited annual accounts of that year.

Thus, due to erroneous inclusion of the incentive amounts under Non-Tariff Income that resulted in its deduction from the ARR and not claiming of the same amount as incentives for both the years led to a loss of revenue to the tune of ₹ 31.70 crore to the Company (₹ 21.20 crore for the year 2015-16 and ₹ 10.50 crore for the year 2016-17).

Management in its reply stated that in the year 2015-16 and 2016-17, the transmission incentives were considered as Miscellaneous Income under the head of Other Income in the Annual Accounts and accordingly it was deducted from the ARR as non-tariff income. The same was rectified by filing review petition to the AERC for review during the year 2016-17 (true up) and accordingly transmission incentive amounting to ₹ 4.86 crore was allowed.

The reply of the Management was not tenable as the Company failed to claim incentive amount of ₹ 10.60 crore in addition to required non-deduction of the ARR with the same amount in the year 2015-16. Similarly due to wrong deduction of ₹ 10.50 crore as non-tariff income in the year 2016-17 the Company sustained loss to the extent of ₹ 10.50 crore.

Para-2: Extension of undue favour to the contractor by ₹ 0.71 crore.

The Company entered into a agreement (February 2016) with Megha Electricals for an amount of ₹ 10.93 crore (for supply of Plant & Equipment - ₹ 6.40 crore inclusive of Excise Duty (ED), for 5 percent Sales Tax on supply - ₹ 0.32 crore, for Erection, Testing and commissioning - ₹ 4.00 crore and for Freight and Insurance - ₹ 0.21 crore) on turnkey basis for

¹Double impact of ₹ 10.60 crore- one for deduction from ARR and other for non-addition to ARR turned to ₹ 21.20 crore (₹ 10.60 crore x 2)

ASSAM ELECTRICITY GRID CORPORATION LIMITED

Calculation of Incentive Transmission Charge

2015-16

INCENTIVE = TRANSMISSION CHARGES x (AVAILABILITY ACHIEVED - TARGET AVAILABILITY) / TARGET AVAILABILITY
= Rs. 540,57,00,000 x (99.921-98)/98
= Rs. 10,59,62,752



Asstt. General Manager (F&A)
AEGCL, Bijulee Bhawan
Guwahati-1



Note: NAFM=non-availability factor for the year
 TAFM= Transmission system availability factor for the year
 THM= Total hour in the year
 MVAR rating of reactors are not considered as data of the lone connected reactor at MNI S/S is not available.
 The 2nd reactor at MNI & other 2 nos of reactors at SIMG S/S are out of order.

$$\begin{aligned}
 \text{NAFM} &= \left[\frac{\text{Sum (Outage hours x Cktkm x NSC) + Sum (outage hours x MVA x 2.5) + Sum (Outage hours x MVAR x 4)}}{\text{THM x [Sum (Cktkm x NSC) + Sum (MVA x 2.5) + Sum (MVAR x 4)]}} \right] \\
 &= \frac{[271211.263] + [9238.25] + [0]}{8784.000 \times (6169) + (13742 \times 2.5) + (0)} \\
 &= \frac{280449.513}{355962816.000} \\
 &= 0.00079 \\
 \text{TAFM} &= [100 - (100 \times \text{NAFM})] \\
 &= 99.921
 \end{aligned}$$

Availability for the year April-2015 to March-2016 = 99.921 %

Prepared by:
 U.K. Samra
 Asstt Manager
 SLDC DIV, AEGCL
 Kahilipara, Guwahati-781019

Assistant General Manager
 SLDC Division, AEGCL
 Kahilipara, Guwahati -19

Annexure-XI
Details of Transmission
Availability Factor for FY 2021-22
& FY 2022-23



ASSAM ELECTRICITY GRID CORPORATION LIMITED

Regd. Office: (FIRST FLOOR), BIJULEE BHAWAN, PALTANBAZAR, GUWAHATI - 781001

CIN: U40101AS2003SGC007236 GSTIN: 18AAFGA4973J9Z3

PHONE: 0361-2739520 Web: www.aegcl.co.in



ASSAM ELECTRICITY GRID CORPORATION
OFFICE GUWAHATI

No. AEGCL/CGM/SLDC/T-133/2022/21

Date : 01-04-2022

To,

The Managing Director, AEGCL

First Floor, Bijulee Bhawan, Paltan Bazar, Ghy-781001

Subject: Transmission System Availability Factor of AEGCL for FY 2021-2022

Sir,

With reference to the subject cited above, please find herewith the transmission system availability factor of AEGCL for FY 2021-2022.

The transmission system availability factor of AEGCL is affected due to outage of the following elements.

1. 132 kV Panchgram - Srikona : under prolonged outage.
2. Higher number of Pre Monsoon Preventive Maintenance shutdowns taken during the month.

This is for favor of your kind information and necessary action.

Encls: As above.

Yours Faithfully

Chief General Manager, SLDC,
AEGCL, Kahilipara, Ghy-19.

Memo No. : AEGCL/CGM/SLDC/T-133/2022/21(a-c)

Date : 01-04-2022

Copy to :

1. The Chief General Manager (O&M), LAR/CAR/UAR, AEGCL, Bijulee Bhawan, Paltan Bazar, Ghy-781001- for information.
2. The Deputy General Manager (Operations), SLDC, AEGCL, Kahilipara, Ghy-781019- for information.
3. Relevant File.
- 4.

Chief General Manager, SLDC,
AEGCL, Kahilipara, Ghy-19.

O/O The Chief General Manager, SLDC, AEGCL, Kahilipara, Guwahati - 781019
Phone - 0361-2380539 (Office), 95312 06854 (Control Room)
E-mail:- sldcassam@aegcl.co.in, sldcaseb@gmail.com; Website: www.sldcassam.in

TRANSMISSION SYSTEM AVAILABILITY FACTOR FOR AEGCL

FY 2021-2022

MONTH	% AVAILABILITY
Apr-21	99.230
May-21	99.330
Jun-21	99.005
Jul-21	98.976
Aug-21	99.240
Sep-21	99.051
Oct-21	99.274
Nov-21	99.222
Dec-21	99.322
Jan-22	99.001
Feb-22	98.908
Mar-22	99.104
AVERAGE	99.155

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PREPARED BY

AM/14/2022

DEPUTY MANAGER

SLDC, AEGCL

KABILIPARA, GHY-19

SUBMITTED BY

AM/14/2022

ASSISTANT GENERAL MANAGER (SYSTEM OPERATIONS)

SLDC, AEGCL

KABILIPARA, GHY-19

CHECKED BY

AM/14/2022

DEPUTY GENERAL MANAGER (OPERATIONS)

SLDC, AEGCL

KABILIPARA, GHY-19

CHIEF GENERAL MANAGER

SLDC, AEGCL

KABILIPARA, GHY-19

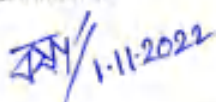
TRANSMISSION SYSTEM AVAILABILITY FACTOR OF AEGCL

FY 2022-2023

MONTH	% AVAILABILITY	REMARKS
Apr-22	99.064	ACTUAL
May-22	99.371	
Jun-22	99.434	
Jul-22	99.271	
Aug-22	98.835	
Sep-22	99.048	
Oct-22	99.000	PROJECTED
Nov-22	99.000	
Dec-22	99.000	
Jan-23	99.000	
Feb-23	99.000	
Mar-23	99.000	

*** Calculations done as per new formula notified by Honble AERC

PREPARED BY


 1.11.2022

DEPUTY MANAGER (SYSTEM OPERATIONS)

SLDC, AEGCL

KAHILIPARA, GHY-19


SUBMITTED BY

 1/11/22
ASSISTANT GENERAL MANAGER
(SYSTEM OPERATIONS)

SLDC, AEGCL

KAHILIPARA, GHY-19

CHECKED BY

 1/11/22
DEPUTY GENERAL
MANAGER
(OPERATIONS)

SLDC, AEGCL

KAHILIPARA, GHY-19

Annexure-XII

Progress Report of SAMAST

Progress Reports of SAMAST as on 21.11.2022

Sl No	Item	Responsibility	Description of work	Status	Remarks
01	<u>DATA CENTRE HARDWARE</u>	<u>Infotek Services, Kolkata</u>	Installation work of the Data Centre Hardware Items. (i.e. Database server, Virtualization server, CDCS server, SAN, NAS, Firewall and UPS system & Battery bank has already been installed at SLDC Data Centre) has been completed on 21th February 22.	100%	
02	<u>DATA CENTRE SOFTWARE</u>	<u>Infotek Services, Kolkata</u>	Activation of Replication software, back up & Recovery software, Virtualization Software (VM ware), Windows server Operating system, User Client access license (CAL), Manage Engine OP manager professional Edition, Manage Engine Patch Manager, Installation of Operating software and MDAS application at CDCS server is completed	100%	
03	<u>Associated IT services</u>	SLDC	<ul style="list-style-type: none"> • High Speed internet connection has been procured from M/s Power-tel Ltd. • Installation completed for MPLS connectivity in GPRS network for secured metered data collection from Substations to Data center • LAN connectivity for workstation for SAMAST has been completed. • Procured Domain name, SSL certificate, SMS gateway, Mail service etc. for hosting SLDC website • Firewall for Power-tel lease line has been procured & installed as per cyber security guidelines. 	80%	
04	<u>SOFTWARE MODULE DEVELOPMENT</u>	PwC, Kolkata	<ul style="list-style-type: none"> • PwC, Kolkata has completed the Software development activities on Scheduling, Open Access, CMS website, MDM module, Energy Accounting E-logbook & MIS module and FAT is approved by AEGCL for these modules. • PwC successfully deployed all the SAMAST software modules in SLDC's datacenter environment on 13 September 2022 	75%	

Progress Reports of SAMAST as on 21.11.2022

			<ul style="list-style-type: none"> PwC shared the accessible links to SAMAST software modules in the DC environment with AEGCL on 14 September 2022 Process of integration of Open access metering data to the MIDAS module is going on <p>PwC continued with updating the user manuals of the SAMAST software modules</p>		
05	ABT meter installation & AMR (1 st Phase)	Genus Infrastructure Pvt Ltd.	<ul style="list-style-type: none"> Genus has completed the pilot project of metering & AMR at 132kV GSS Kahilipara, 132kV GSS Kamakhya, 132kV GSS Narengi and 220kV GSS Jawaharnagar GSS by 18th Feb, 2022 and Energy meters data has been received successfully through MIDAS application environment at SLDC 	100%	5% of the total ABT meters are installed in the Pilot project.
06	Mass installation of ABT energy meter with AMR (2 nd Phase)	Genus Infrastructure Pvt Ltd.	<ol style="list-style-type: none"> Go ahead for Mass installation of ABT energy meter with AMR & networking has been given to M/s Genus Power on 28.08.2022 and the work has been started from 18th July/2022. Meter installation work completed at 132kV Kahilipara, Narengi, Kamakhya, Azara, Baghijap, Dispur Capital, Kamalpur, 220kV Jawaharnagar & Boko Gss. Meter testing for the final lot of ABT meter is completed on 10th August/22 at Genus laboratory, Haridwar. 134 nos of meter out of 560 is already installed. 	22%	Meter installation process is going on.
07	Cyber security	PwC & Genus	<ol style="list-style-type: none"> Installation of Firewall by M/s PwC for the IT solution part is completed. Installation of Firewall by M/s Genus for the communication server at data center is completed. <p>Installation & commissioning of Firewall with Unified Threat Protection (UTP), Advance Malware protection, Application control, Web & video filtering, Antispam service etc. for internet lease line (Power Tel) is completed on 02.09.2022</p>	75%	VAPT not done.

Scheme

Project Name	Status (both Physical and Financial)	Start Date of Project	Original Date of Completion	Target/ Actual Date of Completion	Original Project Cost	Reasons for Delay	Revised Status as per Last meeting
SAMAST	a) 5% of the total meter (28 nos) installed successfully in the pilot project. b) Data Server, CDCS server has been installed by Infotek Services c) UPS, Battery bank and workstation installation is completed d) FAT is approved for Open Access, Energy Scheduling, CMS Website module, MDM module, Energy Accounting, E-logbook & MIS module. e) Deployment of all the module in SLDC environment is completed. f) Procurement of SIM and MPLS connection for GPRS communication for AMR is under process g) High Speed Internet connection is procured from M/s PowerTel Ltd. h) Total grant received from PSDF - Rs. 2,56,00,000.00 i) Utilized amount is Rs. 2,00,89,500.00	11th February, 2021	31st August, 2022	31st December, 2022	10.25 crore	NA	FAT is approved for Open Access, Energy Scheduling, CMS Website module, MDM module, Energy Accounting, E-logbook & MIS module.
33kV ART metering	a) LOA has been issued to M/s Secure Meter Ltd. on 24/06/2022 b) Inspection for 435 SAMAST meters was successfully carried out in our works on 19 th & 20 th of Oct'22	24th June, 2022	24th June, 2023	NA	4.21 crore	NA	Tendering process has been completed and LOA has been issued to M/s Secure Meter Ltd.