



**ASSAM ELECTRICITY REGULATORY COMMISSION
(AERC)**

TARIFF ORDER

March 21, 2022

**True-Up for FY 2020-21, APR for FY 2021-22, ARR
for the Control Period from FY 2022-23 to FY 2024-
25 and Tariff for FY 2022-23**

for

**Assam Electricity Grid Corporation Limited
(AEGCL)**

Petition No. 07/2021

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List of Abbreviations

A&G	Administrative and General
ABITA	Assam Branch of Indian Tea Association
ADB	Asian Development Bank
AEGCL	Assam Electricity Grid Corporation Limited
AERC	Assam Electricity Regulatory Commission
APDCL	Assam Power Distribution Company Limited
APGCL	Assam Power Generation Corporation Limited
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
AS	Accounting Standards
ASEB	Assam State Electricity Board
BST	Bulk Supply Tariff
CAG/C&AG	Comptroller and Auditor General
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CPC	Central Pay Commission
CPI	Consumer Price Index
CSGS	Central Sector Generating Stations
CTU	Central Transmission Utility
CWIP	Capital Work-In-Progress
DA	Dearness Allowance
DISCOM	Distribution Company
EAP	Externally Aided Projects
EPFI	Employees' Pension Fund Investment
FAR	Fixed Asset Register
FCC	Financial Completion Certificate
FINER	Federation of Industry & Commerce of North Eastern Region
FIRR	Financial Internal Rate of Return
GFA	Gross Fixed Assets
GoA	Government of Assam
GPF	General Provident Fund
H1	First Half of the year
H2	Second Half of the year

HRA	House Rent Allowance
IWC/loWC	Interest on Working Capital
kW	kilo Watt
kWh	kilo Watt Hour
LTA	Leave Travel Allowance
MCA	Ministry of Corporate Affairs
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NERLDC	North Eastern Region Load Despatch Centre
NTPC	NTPC Ltd.
O&M	Operation and Maintenance
PCC	Physical Completion Certificate
PGCIL	Power Grid Corporation of India Limited
PoC	Point of Connection
R&M	Repairs and Maintenance
RLDC	Regional Load Despatch Centre
RoE	Return on Equity
ROI	Rate of Interest
ROP	Revision of Pay
SAC	State Advisory Committee
SBI	State Bank of India
SLDC	State Load Despatch Centre
SLM	Straight Line Method
STOA	Short Term Open Access
STU	State Transmission Utility
TSC	Transmission Service Charges
TVS	Technical Validation Session
WPI	Wholesale Price Index

ASSAM ELECTRICITY REGULATORY COMMISSION

Guwahati

Present

Shri K. S. Krishna, Chairperson

Smt. B Borthakur, Member

Shri S. N. Kalita, Member

Petition No. 07/2021

Assam Electricity Grid Corporation Limited (AEGCL) - **Petitioner**

ORDER

(Passed on March 21, 2022)

- (1) AEGCL filed the Petition for approval of Truing up for FY 2020-21, Annual Performance Review (APR) for FY 2021-22 as per MYT Regulations, 2018, Aggregate Revenue Requirement (ARR) for FY 2022-23 to FY 2024-25, Capital Investment Plan for the Control Period from FY 2022-23 to FY 2024-25, and determination of Tariff for FY 2022-23 as per MYT Regulations, 2021 on November 30, 2021. The same was registered as Petition No. 07/2021.
- (2) The Commission held an Admissibility Hearing on December 23, 2021, and admitted the Petition (Petition No.07/2021) vide Order dated December 23, 2021 with direction to furnish the additional data and clarifications, as sought vide letter dated December 13, 2021.
- (3) On admission of the Petition (Petition No. 07/2021), in accordance with Section 64 of the Electricity Act, 2003 (EA 2003), the Commission directed AEGCL to publish a summary of the ARR and Tariff filing in local dailies to facilitate due public participation.
- (4) A copy of the Petition and other relevant documents were also made available to the consumers and other interested Parties at the office of the Managing Director of

AEGCL, and offices of the Deputy General Manager of each circle of AEGCL. A copy of the Petition was also made available on the websites of the Commission and AEGCL.

- (5) Accordingly, a Public Notice was issued by the AEGCL inviting objections/suggestions from respondents to be submitted on or before January 21, 2022. The notice was published in five (5) leading newspapers of the State on December 28, 2021.

Date	Name of Newspaper	Language
28.12.2021	The Assam Tribune	English
	Amar Asom	Assamese
	Dainik Asom	Assamese
	Purbanchal Prahari	Hindi
	Dainik Jugasankha	Bengali

- (6) In response to the Commission's letter dated December 13, 2021, AEGCL submitted their replies on January 10, 2022.
- (7) A Technical Validation Session (TVS) was also held on February 08, 2022 at the conference room of the Commission.
- (8) The Petitions were also discussed in the 29th Meeting of the State Advisory Committee (SAC) (constituted under Section 87 of the EA 2003) held on February 25, 2022 at Bidyut Niyamak Bhawan, Six Mile, Guwahati.
- (9) The Commission received suggestions/objections from four (4) stakeholders on the Petition filed by AEGCL. The stakeholders were notified about the place, date and time of Hearing, to enable them to take part in the Hearing. A notice was also published in Newspapers inviting participation from the general public as well as the Respondents. The Hearing was held at Bidyut Niyamak Bhawan, Six Mile, Guwahati on March 02, 2022 as scheduled. All stakeholders/respondents who participated in the Hearing were given the opportunity to express their views on the Petitions. The details are discussed in Chapters attached to this Order.
- (10) The Commission, now in exercise of its powers and functions vested under Sections 61, 62, 86 and 181 of the EA 2003 and all other powers enabling it in this behalf and taking into consideration the submissions made by the Petitioner, objections and suggestions received from stakeholders and all other relevant materials on record, has

approved the Truing up for FY 2020-21, APR for FY 2021-22, ARR for FY 2022-23 to FY 2024-25 and determined the Tariff for FY 2022-23 as detailed in Chapters attached to this Order.

- (11) The Commission directs AEGCL to publish a Public Notice intimating the revised Transmission Tariff before the implementation of this Order, in English and Vernacular newspapers and on the website of AEGCL.
- (12) The approved Transmission Tariff shall be effective from April 1, 2022 and shall continue until replaced by any subsequent Order of the Commission.

Accordingly, the Petition No. 07/2021 stand disposed of.

Sd/-	Sd/-	Sd/-
(S. N. Kalita)	(B Borthakur)	(K. S. Krishna)
Member, AERC	Member, AERC	Chairperson, AERC

1 INTRODUCTION

1.1 Constitution of the Commission

- 1.1.1 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 EA 2003.
- 1.1.2 The Commission is mandated to exercise the powers and functions conferred under Section 181 of the EA 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.

1.2 Tariff related Functions of the Commission

- 1.2.1 Under Section 86 of the Act, the Commission has the following tariff related functions:
- a) To determine the tariff for electricity, wholesale, bulk or retail, as the case may be;
 - b) To regulate power purchase and procurement process of the distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
 - c) To promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.
- 1.2.2 Under Section 61 of the Act in the determination of tariffs, the Commission is to be guided by the following:
- a) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
 - b) That the electricity generation, transmission, distribution and supply are conducted on commercial principles;
 - c) That factors which would encourage efficiency, economical use of the resources, good performance, optimum investments, and other matters which the State commission considers appropriate for the purpose of this Act;

- d) The interests of the consumers are safeguarded and at the same time, the consumers pay for the use of electricity in a reasonable manner based on their customer category cost of supply;
- e) That the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency and also gradually reduces cross subsidies;
- f) The National Power Plans formulated by the Central Government including the National Electricity Policy and Tariff Policy.

1.3 Background

- 1.3.1 AEGCL is the successor corporate entity of erstwhile Assam State Electricity Board (ASEB) formed pursuant to the notification of the Government of Assam (GoA), notified under sub-sections (1), (2), (5), (6) and (7) of Section 131 and Section 133 of the EA 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 ASEB to successor entities.
- 1.3.2 AEGCL owns and operates the transmission system previously owned by ASEB. AEGCL has started functioning as a separate entity from December 10, 2004.

1.4 Multi Year Tariff Regulations, 2018

- 1.4.1 The Commission, in exercise of the powers conferred under Section 61 read with Section 181(2) (zd) of the Act, notified the AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2018 (herein after referred as “MYT Regulations, 2018”) on July 17, 2018. These Regulations are applicable for determination of Tariff for Generation, Transmission, SLDC, Wheeling and Retail Supply for the Control Period of three financial years from April 1, 2019 onwards up to March 31, 2022.
- 1.4.2 Regulation 4.2 of the MYT Regulations, 2018 specifies the MYT framework as reproduced below:

“4.2 The Multi-Year Tariff framework shall be based on the following elements, for calculation of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Companies, Transmission Licensee, SLDC, Distribution Wheeling Business and Retail Supply Business:

...

(vi) Annual Performance review vis-à-vis the approved forecast and categorization of variation in performance as those caused by factors beyond the control of the applicant (uncontrollable items) shall be undertaken by the Commission;

(vii) True up of the past years based on audited annual accounts of the licensees and the Generation companies.

(viii) The mechanism for pass-through of approved gains or losses on account of uncontrollable items as specified by the Commission in these Regulations;

(ix) The mechanism for sharing of approved gains or losses arising out of controllable items as specified by the Commission in these Regulations;

(x) Tariff determination for Generating Companies, SLDC, Transmission Licensee and Distribution Wheeling Business and Retail Supply Business, for each financial year within the Control period based on the approved forecast. The tariff shall be reviewed at the time of the true-up and annual performance review.

(xi) There will be no true-up of the controllable items except on account of Force Majeure events or on account of variations attributable to uncontrollable items. The variations in the controllable items, as defined in regulation 10, over and above the norms specified will be governed by incentive and penalty framework specified in these regulations.

...”

1.5 Multi Year Tariff Regulations, 2021

1.5.1 The Commission, in exercise of the powers conferred under Section 61 read with Section 181(2) (zd) of the Act, notified the AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021 (herein after referred as “MYT Regulations, 2021”) on September 18, 2021. These Regulations are applicable for determination of Tariff for Generation, Transmission, SLDC, Wheeling and Retail Supply for the Control Period of three financial years from April 1, 2022 onwards up to March 31, 2025. These Regulations are applicable to all existing and future Generating Companies, Transmission Licensees and Distribution Licensees within the State of Assam.

1.5.2 Regulation 4.2 of the MYT Regulations, 2021, specifies the MYT framework, as reproduced below:

“4.2 The Multi-Year Tariff framework shall be based on the following elements, for calculation of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Companies, Transmission Licensee, SLDC, Distribution Wheeling Business and Retail Supply Business:

- (xiii) Before commencement of Control Period, a forecast of the Aggregate Revenue Requirement and expected revenue from existing tariff and charges shall be submitted by the applicant and approved by the Commission;*
- (ii) A detailed Capital Investment Plan for each year of the Control Period, shall be submitted by the applicant for the Commission’s approval;*
- (iii) The applicant shall submit operating norms and trajectories of performance parameters for each year of the Control Period, for the Commission’s approval;*
- (iv) The applicant shall submit the forecast of Aggregate Revenue Requirement and expected revenue from existing tariff for each year of the Control Period, and the Commission shall approve the tariff for Generating Companies, SLDC, Transmission Licensee, Distribution Wheeling Business and Retail Supply Business, for each year of the Control Period;*
- (v) In its tariff petition, a generating company shall submit information to support the determination of tariff for each generating station*
- (vi) Annual Performance review vis-à-vis the approved forecast and categorization of variation in performance as those caused by factors beyond the control of the applicant (uncontrollable items) shall be undertaken by the Commission;*
- (vii) True up of the past years based on audited annual accounts of the licensees and the Generation companies.*
- (viii) The mechanism for pass-through of approved gains or losses on account of uncontrollable items as specified by the Commission in these Regulations;*
- (ix) The mechanism for sharing of approved gains or losses arising out of controllable*

items as specified by the Commission in these Regulations;

(x) Tariff determination for Generating Companies, SLDC, Transmission Licensee and Distribution Wheeling Business and Retail Supply Business, for each financial year within the Control period based on the approved forecast. The tariff shall be reviewed at the time of the true-up and annual performance review.

(xi) There will be no true-up of the controllable items except on account of Force Majeure events or on account of variations attributable to uncontrollable items. The variations in the controllable items, as defined in regulation 10, over and above the norms specified will be governed by incentive and penalty framework specified in these regulations.

(xii) The tariff determined by the Commission and the directions given in the MYT order shall be the quid pro quo and mutually inclusive. The tariff determined shall, within the time period specified in the order, be subject to the compliance of the directions by the generating company and the licensees to the satisfaction of the Commission. Non-compliance of directions given in the tariff order may also lead to invocation of the provisions of section 142 of the Act.

(xiii) The tariff determined by the Commission shall continue to operate till it is modified or revised by the Commission.”

1.6 Procedural History

- 1.6.1 As per Regulation 4.2 of the MYT Regulations, 2021, AEGCL is required to file an application for Truing up for FY 2020-21, Annual Performance Review (APR) for FY 2021-22 for AEGCL, Aggregate Revenue Requirement (ARR) for FY 2022-23 to FY 2024-25, and determination of Tariff for FY 2022-23, not less than 120 days before the close of the current financial year.
- 1.6.2 AEGCL filed Petition for approval of Truing up for FY 2020-21, APR for FY 2021-22, as per MYT Regulation 2018 and, ARR for FY 2022-23 to FY 2024-25, and determination of Tariff for FY 2022-23 as per MYT Regulations, 2021 on November 30, 2021. The same was registered as Petition No. 07/2021.
- 1.6.3 The Commission held an Admissibility Hearing on December 23, 2021, and admitted the Petition (Petition No. 07/2021) with direction to furnish the additional data and clarifications, as sought vide letter dated December 13, 2021.

- 1.6.4 On admission of the Petitions in accordance with Section 64 of the EA 2003, the Commission directed AEGCL to publish a summary of the ARR and Tariff filings in local dailies to facilitate due public participation.
- 1.6.5 A copy of the Petition and other relevant documents were also made available to the consumers and other interested Parties at the office of the Managing Director of AEGCL, and offices of the Deputy General Manager of each circle of AEGCL. A copy of the Petition was also made available on the websites of the Commission and AEGCL.
- 1.6.6 Accordingly, a Public Notice was issued by AEGCL inviting objections/suggestions from respondents to be submitted on or before January 21, 2022. The notice was published in five (5) leading newspapers of the State on December 28, 2021:

Date	Name of Newspaper	Language
28.12.2021	The Assam Tribune	English
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	Dainik Asom	Assamese
	Purbanchal Prahari	Hindi
	Dainik Jugasankha	Bengali

- 1.6.7 In response to the Commission's letter dated December 13, 2021, AEGCL submitted their replies on January 10, 2022.
- 1.6.8 The Commission received suggestions/objections from four (4) stakeholders on the Petitions filed by AEGCL. The stakeholders were notified about the place, date and time of Hearing, to enable them to take part in the Hearing. A News Paper notice was also published inviting participation from the General Public as well as the Respondents. The Hearing was held at Bidyut Niyamak Bhawan, Six Mile, Guwahati on March 02, 2022 as scheduled. All stakeholders/respondents who participated in the Hearing were given the opportunity to express their views on the Petitions.
- 1.6.9 All the written representations submitted to the Commission and oral submissions made before the Commission in the Hearing and the responses of AEGCL have been carefully considered while issuing this Tariff Order. The major issues raised by different consumers and consumer groups along with the response of AEGCL, and views of the Commission are elaborated in Chapter 3 of this Order.

1.7 State Advisory Committee Meeting

- 1.7.1 A meeting of the State Advisory Committee (SAC) (constituted under Section 87 of the Act) was convened on February 25, 2022 at Bidyut Niyamak Bhawan, Six Mile, Guwahati, and members were briefed on the MYT Petition of AEGCL. The Minutes of the SAC Meeting are appended to this Order as **Annexure 1**.

2 Summary of AEGCL's Petition

2.1 Background

2.1.1 AEGCL submitted the Petition on November 30, 2021 seeking approval of ARR and determination of Transmission Charges for the Control Period from FY 2022-23 to FY 2024-25 along with True up for FY 2020-21 and APR for FY 2021-22. The Transmission Charges are to be recovered from the Assam Power Distribution Company Limited (APDCL), IPPs and other generators, traders and others who utilize the transmission system.

2.2 True-up for FY 2020-21

2.2.1 AEGCL submitted the True-up for FY 2020-21 based on the audited accounts. The summary of Aggregate Revenue Requirement (ARR) and Revenue Gap/(Surplus) claimed by AEGCL for FY 2020-21 is shown in the following Table:

Table 1: True-up for FY 2020-21 as submitted by AEGCL (Rs. Crore)

Sl. No.	Particulars	Approved in T.O dt. 07.03.20 & Review Order dt. 27.07.2020	AEGCL Petition
1	O&M Expenses	203.28	205.69
a	<i>Employee Cost</i>	172.07	173.95
b	<i>R&M Expenses</i>	20.94	21.53
c	<i>A&G Expenses</i>	9.97	9.97
d	Training Expenses	0.30	0.24
2	Depreciation	29.79	51.80
3	Interest & Finance Charges	16.40	12.98
4	Interest on Working Capital	12.38	11.17
5	BST for Pension Trust Fund	145.72	137.82
6	Return on Equity	15.49	15.49
7	Income Tax	-	-
8	Other debits	-	0.09
9	Less: Non-Tariff Income/ Other Income	45.26	56.48
10	Aggregate Revenue Requirement	377.80	378.56
11	Incentive on Transmission Availability	-	0.07
12	Add: Sharing of (Gains)/Loss	-	(13.98)

Sl. No.	Particulars	Approved in T.O dt. 07.03.20 & Review Order dt. 27.07.2020	AEGCL Petition
13	ARR after Sharing (Gains)/Losses and Incentive	377.80	364.64
14	Revenue with Approved Tariff for FY 2020-21	377.80	377.80
15	Less: Revenue from STOA/MTOA Charges		12.02
16	Add: Credit bill already served to APDCL as refund of surplus amount of BST on account of difference between approved BST and actual BST		8.82
16	Revenue Gap/(Surplus) for FY 2020-21		(16.36)

2.3 Annual Performance Review of FY 2021-22

2.3.1 AEGCL submitted the APR of FY 2021-22 based on the actual expenses incurred in the first half of FY 2021-22, as shown in the Table below:

Table 2: Annual Performance Review for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Approved in T.O. dt. 15.02.2021	FY 2021-22 (H1)	FY 2021-22 (H2)	AEGCL Estimation
1	O&M Expenses	219.60	110.38	110.77	221.15
a	Employee Cost	185.10	93.12	93.12	186.23
b	R&M Expenses	23.84	12.16	12.16	24.32
c	A&G Expenses	10.26	5.10	5.10	10.21
d	Training Expenses	0.40	0.01	0.39	0.40
2	Depreciation	35.97	25.87	25.87	51.74
3	Interest & Finance Charges	24.06	6.36	6.36	12.72
4	Interest on Working Capital	11.06	5.68	5.81	11.49
5	BST for Pension Trust Fund	146.64	74.25	74.25	148.50
6	Return on Equity	15.49	7.74	7.74	15.49
7	Other debits	-	1.80	-	1.80
8	Less: Non-Tariff Income/Other Income	63.73	33.24	24.80	58.04
9	Aggregate Revenue Requirement	389.09	198.85	206.00	404.86

Sl. No.	Particulars	Approved in T.O. dt. 15.02.2021	FY 2021-22 (H1)	FY 2021-22 (H2)	AEGCL Estimation
10	Incentive on Transmission Availability	-	1.31	-	1.31
11	Aggregate Revenue Requirement after incentive	389.09	200.16	206.00	406.17
12	Less: Revenue from STO/MTOA Charges	-	5.68	5.68	11.36
13	Net Aggregate Revenue Requirement	389.09	-	-	394.81
14	Revenue with Approved Tariff for FY 2021-22	389.09	-	-	389.09
15	Revenue Gap/(Surplus) for FY 2021-22	-	-	-	5.72

2.4 Multi Year Tariff Determination for FY 2022-23 to FY 2024-25

2.4.1 AEGCL has projected the ARR of Rs. 492.89 Crore for FY 2022-23, Rs. 518.42 Crore for FY 2023-24, and Rs. 565.71 Crore for FY 2024-25, as detailed in the Table below:

Table 3: ARR for FY 2022-23 to FY 2024-25 as submitted by AEGCL

Sl. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	O&M Expenses	253.61	265.99	285.48
a	<i>Employee Cost</i>	199.38	213.46	228.52
b	<i>R&M Expenses</i>	43.43	41.50	45.63
c	<i>A&G Expenses</i>	10.45	10.70	10.96
d	Training Expenses	0.35	0.34	0.36
2	Depreciation	59.39	70.40	92.10
3	Interest & Finance Charges	12.39	8.78	8.65
4	Interest on Working Capital	13.83	14.52	15.72
5	BST for Pension Trust Fund	201.96	206.00	210.12
6	Return on Equity	14.10	14.97	15.51
7	Contribution to Contingency Reserve	2.56	2.71	3.08
8	Less: Non-Tariff Income/Other Income	52.95	52.95	52.95
9	Aggregate Revenue Requirement	504.89	530.42	577.71
12	Less: Revenue from STO/MTOA Charges	12.00	12.00	12.00

Sl. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
13	Net Aggregate Revenue Requirement	492.89	518.42	565.71

2.5 Prayers of AEGCL

2.5.1 AEGCL, in its Petition, has prayed as under:

“

- (i) *Accept the Annual Revenue Requirements and Tariff proposal for Transmission Business respectively in accordance with:

 - a. *The guidelines outlined in AERC Orders passed in various matters relating to AEGCL; and*
 - b. *The principles contained in AERC (Terms and Conditions for determination of Tariff) Regulations 2021;**
- (ii) *Condone any inadvertent omissions/errors/rounding off differences/shortcomings and permit AEGCL to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date.*
- (iii) *Pass such further and other Orders, as the Commission may deem fit and proper, keeping in view the facts and circumstances of the case.”*

3 Brief Summary of Objections Raised, Response of the AEGCL and Commission's Comments

3.1.1 The Commission has received suggestions/objections from four (4) stake holders on the Petition filed by AEGCL, from the following objectors:

Sl. No.	Name of objector
1	Federation of Industries and Commerce of North Eastern Region (FINER)
2.	Assam Branch of Indian Tea Association (ABITA)
3.	Consumer Advocacy Cell (CAC)
4.	ASEB Pensioners Association

3.1.2 AEGCL submitted its responses to the objections/suggestions received from the above objectors.

3.1.3 The Commission considered the objections/suggestions received and notified the objectors to take part in the Hearing process by presenting their views in person before the Commission, if they so desired.

3.1.4 The Commission held the Hearing at the Court room of AERC, Guwahati on March 2, 2022.

3.1.5 The objectors attended the Hearing and submitted their views/suggestions. All the written representations submitted to the Commission and the oral submission made before the Commission in the Hearing and the responses of APDCL have been carefully considered while issuing this Tariff Order.

3.1.6 The objections/suggestions made by the objectors and responses of the Petitioner are briefly dealt with in this Chapter. The major issues raised by the objectors are discussed below along with the response of the Petitioner (AEGCL) and views of the Commission.

3.1.7 While all the objections /suggestions have been given due consideration by the Commission, only major responses/objections received on the Petitions and also those raised during the course of Hearing have been grouped and addressed issue-wise, in order to avoid repetition.

Issue 1: Operation and Maintenance (O&M) Expenses

Objections:

FINER submitted that AEGCL's normative O&M expenses are significantly higher as compared to audited O&M expenses. The norms approved by the Commission in the past are on the higher side. The objector requested the Commission to allow the lower of the actual and audited O&M expenses as adopted by other SERCs.

ABITA submitted that AEGCL has proposed O&M expenses of Rs. 205.69 Cr. based on methodology specified in MYT Regulations, 2018. ABITA has reviewed the calculations and actual expenses as per the audited accounts and considered the lower of actual or the normative expense as per the MYT Regulations, 2018.

Response of AEGCL

AEGCL submitted that the normative R&M expenses have been computed in accordance with Regulation 66.10 of MYT Regulations, 2018 and the detailed computation has been provided in the MYT Petition submitted to the Commission.

Commission's View

The Commission has allowed the normative O&M expenses for FY 2020-21 and computed sharing of gains/(losses) with respect to the actual O&M expenses in accordance with the MYT Regulations, 2018.

Issue 2: Training Expenses

Objections

ABITA and FINER submitted that in the present Petition, AEGCL has claimed Training Expenses to the tune of Rs. 0.24 Crore for FY 2020-21. The Objector submitted that there is no such provision in the MYT Regulations, 2018 for claiming Training Expenses separately. It is pointed out that Training Expenses is a part of O&M expenses and hence, the recovery of the same should be done in terms of Regulation 66.6 of the MYT Regulations, 2018. Hence, Objector requested the Commission to disallow the claim and ask the Petitioner to abide by the provisions of the MYT Regulations.

Response of AEGCL

AEGCL submitted that in the MYT Order dated March 01, 2019, the Commission has approved the training and capacity building expenses for MYT period and directed

AEGCL to submit the Training and Capacity Building Expenses separately at the time of Truing up. In view of the above, AEGCL has submitted Training Expenses separately for FY 2020-21. AEGCL also requested to approve the same as claimed in the MYT Petition.

Commission's View

The Training Expenses were approved by the Commission separately in the MYT Order and have been trued-up accordingly, as detailed in the relevant Chapter of this Order.

Issue 3: Depreciation

Objection

FINER submitted that the Petitioner has claimed Rs. 51.8 Crore as Depreciation amount in the True-up of the FY 2020-21. For the calculation of the same, the Petitioner has considered Rs. 1,456.06 Crore as Grant towards GFA. The basis on which the said figure has been taken is nowhere substantiated in the Petition. The objector has assessed the Depreciation amounting to Rs. 24.39 Crore against the claim of the Petitioner considering the Grant towards the GFA as Rs. 1,955.04 Crore as per the audited Balance Sheet of FY 2020-21.

FINER also requested the Petitioner to provide very clearly if any transmission work has been done against "Deposit Works", i.e., on payment by the beneficiary, which may be generator or an Open Access customer. The Commission is requested to direct the Petitioner to explain the basis of consideration of Grant towards GFA.

ABITA submitted that AEGCL has claimed a net depreciation of Rs. 51.80 Cr. after deducting depreciation towards assets funded through grant/consumer contribution. ABITA has followed the methodology as per the previous Tariff Orders and recomputed depreciation.

CAC submitted that AEGCL has claimed Rs 51.80 crore against depreciation in the true up against an approved amount of Rs 29.27 Crore for FY 2020-21, whereas in the Balance Sheet, an amount of Rs 115.50 crore has been booked against depreciation. Again, for FY 2021-22, the estimated depreciation is Rs 51.74 crore.

Response of AEGCL

AEGCL in reply to comments given by ABITA and FINER on depreciation submitted that the "Grants towards GFA" had been computed based on the formula described in

the Tariff Order dated 19th March 2018 for True Up of FY 2016-17 and Review Order dated 25th June 2019 for True Up of FY 2017-18. Moreover, GFA, Opening CWIP and Grant for FY 2020-21 have been considered as per the Audited Accounts of FY 2020-21.

Further, the depreciation amounting to Rs. 51.80 Crore is excluding depreciation on assets funded through grant as mentioned in the MYT Petition.

AEGCL, in reply to CAC's comments, submitted that the Audited Annual Accounts for FY 2020-21 have been prepared as per the provisions of the Companies Act, 2013, where depreciation has been computed on full value of the assets, which works out to Rs.115.50 Crore, however, in the True Up Petition, AEGCL has computed depreciation as per the MYT Regulations, 2018 where depreciation on assets funded through grants has not been considered, which works out to Rs.51.80 crore against the approved depreciation of Rs. 29.27 crore as per the Review Order dated 27th July 2020.

Further, depreciation for FY 2021-22 has been computed based on the actual amount of asset added during H1 and estimation for H2 of FY 2021-22, as per the MYT Regulations, 2018.

Commission's View

The Commission has allowed depreciation in accordance with the MYT Regulations, 2018. The same is detailed in the relevant Chapter.

Issue 4: Capital Expenditure & Capitalization

Objection

FINER submitted that the Petitioner has claimed Capitalisation of Rs. 169.46 Crore in the True-up of FY 2020-21. However, the Scheme-wise capitalisation is unclear and there is no clarity regarding how many assets were commissioned during FY 2020-21. The Commission is requested to direct the Petitioner to furnish the Capitalization Report and Energization Report for FY 2020-21.

Response of AEGCL

AEGCL submitted that the Petitioner has already submitted projected Scheme-wise Capital Expenditure and Capitalisation to the Commission during the submission of MYT Petition for FY 2019-20 to FY 2021-22. The scheme-wise actual capital expenditure and Capitalisation claimed for FY 2020-21 has also already been provided

in MYT Petition for FY 2022-23 to FY 2024-25. Original cost of Capital Expenditure of projects and original cost of the fixed assets capitalized are available in the Audited Annual Accounts for FY 2020-21, which is already submitted to the Commission along with the MYT Petition.

Commission's View

The Commission has noted the submission. Appropriate directions are detailed in relevant Chapters.

Issue 5: Interest and Finance Charges

Objections

FINER submitted that the Petitioner has claimed Rs. 0.01 Crore as Finance charges in the True-up of FY 2020-21. However, the Petitioner is allowed only Interest Charges towards Long Term Loans and no banking and finance charges are allowed as per the Regulations. Hence, the Commission is requested to disallow the Petitioner's claim in this regard.

ABITA submitted that the interest and finance cost works out to Rs. 10.18 Cr.

Response of AEGCL

AEGCL submitted that the said finance charges are the Bank Charges mandatorily deducted by different banks for the various bank transactions made by AEGCL for smooth functioning of the Corporation. Thus, on account of it being uncontrollable expense, AEGCL requested the Commission to approve Bank Charges without any disallowance.

Commission's View

The Commission has allowed the interest expenses in accordance with the MYT Regulations and the Finance Charges, as discussed in the relevant Chapters of this Order.

Issue 6: Interest on Working Capital

Objection:

ABITA submitted that AEGCL has proposed interest on working capital (IOWC) of Rs. 11.16 Cr. as the approved amount of Rs. 11.09 Cr. ABITA submitted the revised IOWC as Rs. 9.49 Cr.

Response of AEGCL

AEGCL submitted that detailed computation of IOWC for FY 2020-21 in accordance with Regulation 36.1 of the MYT Regulations, 2018 is shown in AEGCL's Petition for True Up of FY 2020-21 .

Commission's View

The Commission has approved the IOWC in accordance with the MYT Regulations, 2018, as elaborated in the relevant Chapter.

Issue 7: BST for Pension Trust Fund

Objections

ABITA submitted that AEGCL has claimed Rs. 137.82 Cr. towards Special Charges on Bulk Supply Tariff for FY 2020-21. ABITA requested the Commission to do the prudence check and only allow BST as applicable for the energy injected into DISCOM.

CAC submitted that Bulk Supply Tariff is collected from the consumers by AEGCL in order to meet its expenses of terminal benefits of its employees (supposed to be of the pre-2004 recruits of erstwhile ASEB). Yet, there are post 2004 recruits covered by the pension law. Therefore, two separate accounts should be maintained by the utilities so far as terminal benefit is concerned. EA 2003 mandated that all employees' liabilities are to be taken up by the GoA and would be given to a government company subsequently formed. However, at present, the above liabilities are borne by the consumers but not by the respective State Government, which is unjustified. A system needs to be evolved to provide terminal benefits from a separate government account funded by the Government and maintained by AEGCL, but not from the consumers.

ASEB Pensioner's Association requested to approve the BST @20 paise per unit of energy sent out to APDCL for the MYT Control Period, as budgetary support from GoA is not sufficient to meet the expenditure.

Response of AEGCL

AEGCL submitted that the Special Charges on BST for FY 2020-21 is based on the energy sent out to APDCL.

AEGCL submitted that the account of Terminal Benefits of Employees of AEGCL who joined services prior to and on or after 01.01.2004 are maintained separately. The amount of all Terminal Liabilities (including BST) of Employees joining services prior to 01.01.2004 were transferred to ASEB Employees Pension Fund Investment Trust and the payments are being made from the Pension Trust Account. On the other hand, Account of Terminal Liabilities of Employees joining services on or after 01.01.2004, i.e., who are covered under New Pension Scheme (NPS) are maintained by the NPS Cell of AEGCL and the funds are transferred to NSDL by the NPS Cell.

Further, currently Terminal Liabilities of the employees are paid by the ASEB Employees Pension Fund Investment Trust from the corpus created out of Electricity Duty, Bulk Supply Tariff (BST) and pension contribution by the Companies, which are borne by the consumers. The cash deficit is met from the budgetary support given by the GoA from time to time.

Commission's views

The Commission has noted the submissions. The BST for Pension Trust Fund has been allowed as elaborated in the relevant Chapters.

Issue 8: Transmission Loss

Objections:

ABITA submitted that AEGCL has projected transmission loss of 3.34% for FY 2021-22 as against 3.29% as approved by the Commission in the Tariff Order for FY 2021-22. It is pertinent to mention that the Transmission losses of various STUs are in the range of 2-3% while that of AEGCL would be amongst the highest in the country. Reduction of transmission loss would help in reducing the overall cost of delivered power to the consumer and AEGCL should be continuously working towards the same.

The Petitioner has considered Transmission losses to be 3.30% for FY 2022-23, FY 2023-24 and FY 2024-25. However, the Transmission Losses as approved by the Commission in the previous MYT Order dated 1st March 2019 is 3.29% for FY 2021-22. Hence, the Hon`ble Commission should maintain the regulatory norms and not relax the same for AEGCL.

Reply of AEGCL

AEGCL submitted that the transmission loss submitted by AEGCL for FY 2021-22 is 3.30% based on H1 actual and estimated for H2 of FY 2021-22. AEGCL added that there has been an increase in the injection of reactive power to AEGCL Grid by 8-10%. This has substantially improved the node voltage of AEGCL buses, which in turn has resulted in lower transmission loss. AEGCL submitted that new 400 kV and 220 kV substations are coming up under AIIB scheme, which are expected to be charged only after FY 2024-25. Also, AEGCL has achieved 3.30% as on date for FY 2021-22. However, AEGCL will make all efforts towards reducing the losses further. In view of the above, the projected transmission losses for FY 2022-23 to 2024-25 are considered as 3.30%.

Commission's views

The Commission has noted the submissions made and considered these while approving the transmission loss trajectory for the MYT Control Period from FY 2022-23 to FY 2024-25. AEGCL has been directed to submit the Energy Audit report with details of Transmission Losses every year along with the next Tariff Petition.

Issue 9: Auditor's Report

Objection

FINER submitted that anomalies have been found by the Auditor in the transfer of assets from one division to another. It was observed that proper recording of assets was not done in various Divisions resulting in undervaluation of particular Assets along with associated depreciation.

The Auditor has observed that there is a difference of ₹7.51 Crore in the Stocks as per Books and the Physical Verification Report, the same remains mismatched and no further explanation has been provided in this regard.

The Auditor has observed that for advance to Supplier/contractors (Capital) amounting to Rs.9.31 Cr for various projects, auditors were neither provided with details in respect of the Assets for which such amount was advanced, nor details in respect of contractors to whom such money was advanced. Further, it has been noticed that there were no adjustments made during the audited period as opening and closing balance for the Current year stood same.

Response of AEGCL

AEGCL submitted that the rectification has been made and will be reflected in the Annual Accounts for FY 2021-22.

AEGCL submitted that the reconciliation of the difference between book value of stock and physical value of stock on monthly basis from the month of April, 2021 has been started and the amount of discrepancy will be rectified and will be shown in the Annual Accounts for FY 2021-22.

AEGCL agrees with the issue of advances given to contractors, and already proper reconciliation process is being undertaken and shall be adjusted accordingly.

Commission's views

The Commission has considered all the issues noted in the Auditor's Report.

Issue 10: EVACUATION OF POWER FROM NTPC BONGAIGAON AND VAR SHARING

Objection

CAC submitted that in the true up Petition for FY 2019-20 filed by AEGCL, it was mentioned that transmission loss of AEGCL was more than the approved value for the following reasons:

- (i) The 220 kV Salakati-Rangia line could not be loaded fully for technical reasons and the power evacuated from NTPC had to be transmitted through another long route via PGCIL network;
- (ii) It was also admitted that many grid S/S failed to maintain 33 kV voltage at the sending end of the distribution interface for which APDCL has been made responsible for the excessive reactive power consumed by it. Supplying of power to APDCL at standard voltage is the responsibility of AEGCL, which needs to be maintained by it.
- (iii) In the True-up Petition for FY 2020-21, AEGCL has not mentioned anything about the above two points related to reduction of transmission losses. AEGCL needs to give an explanation in this regard.
- (iv) AEGCL should clarify whether reduction of transmission loss has been achieved by implementing some specific projects. Details of such projects need to be placed before the Commission for public consumption.

Response of AEGCL

AEGCL submitted that the load flow between different nodes in the entire network follows the cardinal principle based on the power angular difference between the two nodes and as such, changing the power angular difference is beyond the scope of power network operator. Shifting the route of the transmitted power involves FACT and other advanced Technology, which is still in nascent stage in India.

With regard to the 220 kV Salakati-Rangia line, the optimal loading is not possible due to insufficient transmission capacity at 220/132 kV level at Rangia. Under these circumstances, SLDC keeps the incoming load upto Nalbari, Barnagar and Sipajhar. Loading at both the 132 kV Kamalpur circuits is constantly monitored by SLDC to prevent tripping of the ICTs at Rangia on account of sudden loss of Bhutan generation. Further, AEGCL has already taken necessary steps for revival of Capacitor Banks at various substations.

Commission's view

The Commission has noted the submissions.

4 Truing up for FY 2020-21

4.1 Methodology for Truing Up

- 4.1.1 The Commission had approved the ARR for the Control Period from FY 2019-20 to FY 2021-22 and Tariff for FY 2019-20 in the MYT Order dated March 1, 2019. The Commission had approved the revised ARR and Tariff for FY 2020-21 in the Tariff Order dated March 7, 2020.
- 4.1.2 AEGCL submitted the Truing-up Petition for FY 2020-21 based on audited annual accounts and provisions of MYT Regulations, 2018, wherever applicable. AEGCL has sought true-up for FY 2020-21, with the Revenue Gap/(Surplus) to be recovered/adjusted during FY 2022-23.
- 4.1.3 The Commission approves the cost parameters through approval of the ARR at the beginning of the year, keeping in view the data available at that point of time. The cost approvals for each of the items are based on projection of expenses and revenue before beginning of the year and the provisions of MYT Regulations, 2018. The projections might vary over the course of the year.
- 4.1.4 The actual cost/values for certain elements/parameters may vary as against the approved cost during the year due to various controllable and uncontrollable factors. The Licensee may end up with higher or lower expenditure, as the case may be, at the end of the year as against the approved cost.
- 4.1.5 The Commission analyses the actual expenditure for the previous year/years based on the audited Annual Accounts of the Licensee and allows/disallows the recovery of the actual expenditure through the ensuing year's tariff, subject to prudence check.
- 4.1.6 In the present Chapter, the Commission has carried out the Truing up for FY 2020-21 based on the submissions of AEGCL, audited annual accounts for FY 2020-21 and provisions of MYT Regulations, 2018.
- 4.1.7 In this Chapter, the Commission has analysed all the elements of actual expenditure and revenue of AEGCL for FY 2020-21, and undertaken the truing-up of expenses and revenue in accordance with the MYT Regulations, 2018. The Commission has approved the sharing of gains and losses on account of controllable factors between AEGCL and its beneficiaries, in accordance with Regulation 12 of the MYT

Regulations, 2018.

4.2 Transmission Loss

4.2.1 AEGCL submitted the Transmission Loss of 3.34% for FY 2020-21 for the purpose of Truing up, as shown in the following Table:

Table 4: Transmission Loss for FY 2020-21 as submitted by AEGCL (MU)

Sr. No.	Particulars	Approved in T.O. dt. 07.03.2020	AEGCL Submission
1	Energy Injected		9810.10
2	Energy Sent Out to APDCL & OA Consumers		9188.31
3	Energy Sent Out to OA Consumers		294.12
4	Total Energy Sent Out		9482.43
4	Transmission Loss		327.67
5	Transmission Loss (%)	3.34%	3.34%

Commission's Analysis

4.2.2 The Commission has verified the Transmission Loss through documentary evidences submitted by AEGCL. It is noted that the actual Transmission Loss for FY 2020-21 is same as the Transmission Losses approved by the Commission.

4.2.3 For the true-up, the Commission has considered the actual Transmission Loss of 3.34% for FY 2020-21, for the purpose of Energy Balance for APDCL.

4.3 O&M Expenses

4.3.1 AEGCL submitted the O&M expenses for FY 2020-21 comprising following heads:

- a) Employee expenses;
- b) Repairs and Maintenance (R&M) expenses;
- c) Administrative and General (A&G) expenses

The claim of AEGCL under various heads of O&M expenses are discussed below:

4.3.2 Employee Expenses

AEGCL submitted that Employee Expenses comprise salaries, dearness allowance, bonus, terminal benefits in the form of pension and gratuity funding, leave encashment,

and staff welfare expenses. AEGCL has claimed Rs. 173.95 Crore towards employee expenses for FY 2020-21 as against Rs. 172.07 Crore approved in the Tariff Order dated March 7, 2020.

4.3.3 Repairs and Maintenance (R&M) Expenses

Repairs and Maintenance Expenses are incurred for 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.

AEGCL has submitted that assets of AEGCL are old and require regular maintenance to ensure uninterrupted operations. AEGCL has also stated that it has been trying its best to ensure uninterrupted operations of the system and has accordingly been undertaking necessary expenditure for R&M activities regularly. AEGCL has claimed R&M expenses of Rs. 21.53 Crore for FY 2020-21 as against Rs. 20.94 Crore approved in the Tariff Order dated March 7, 2020.

4.3.4 Administrative and General (A&G) expenses

A&G expenses comprise rents, telephone and other communication expenses, professional charges, conveyance and traveling allowances, other debits. AEGCL has claimed A&G expenses of Rs. 9.97 Crore for FY 2020-21 as against Rs. 9.97 Crore approved in the Tariff Order dated March 7, 2020.

4.3.5 Expenses towards Training and Capacity Building

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

AEGCL has incurred Rs.0.24 Crore in FY 2020-21 against the approved amount of Rs. 0.30 Crore. AEGCL requested the Commission to approve the training expenses for FY 2020-21.

4.3.6 In accordance with the MYT Regulations, 2018, the Commission in the Order dated March 07, 2020 allowed O&M Expenses on normative basis. The normative O&M expenses claimed by AEGCL in the Truing up for FY 2020-21 are shown in the Table below:

Table 5: Normative O&M Expenses for FY 2020-21 as submitted by AEGCL (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dtd 07.03.2020	AEGCL Submission
	O&M Expenses	203.28	205.69
A	Employee Cost	172.07	173.95
B	R&M Expenses	20.94	21.53
C	A&G Expenses	9.97	9.97
D	Training Expenses	0.30	0.24

Commission's Analysis

4.3.7 For the purpose of truing up for FY 2020-21, the Commission has computed the O&M Expenses on normative basis as per Regulation 66 of the MYT Regulations, 2018. The variation between normative O&M expenses and actual O&M Expenses has been considered under sharing of gains and loss on account of controllable items as per Regulation 12 of the MYT Regulations, 2018.

Employee Expenses

4.3.8 For computation of normative employee expenses for FY 2020-21, the Commission has adopted the following approach:

- The employee expenses approved after True-up for FY 2019-20 have been considered as base expenses;
- Consumer Price Index (CPI) inflation has been computed as average increase of CPI for the period from FY 2017-18 to FY 2019-20, which works out to 5.35%;
- The growth factor of 1% has been considered as per growth in Transmission network and Growth in number of employees.

4.3.9 The normative employee expenses approved in the true-up for FY 2020-21 are shown in the following Table:

Table 6: Approved Employee Expenses for FY 2020-21 (Rs. Crore)

Particulars	Approved in T.O. dt. 07.03.2020	AEGCL Submission	Approved after Truing up
Actual Employee Expenses for the previous year	163.47	163.48	163.48
Growth factor	4.22%	5.35%	5.35%
CPI Inflation	1.00%	1.00%	1.00%
Normative Employee Expenses	172.07	173.95	173.95

R&M Expenses

4.3.10 For computation of R&M Expenses for FY 2020-21, the Commission has considered the following approach:

- a) Wholesale Price Index (WPI) inflation has been computed as average increase of WPI index for period from FY 2017-18 to FY 2019-20, which works out to 2.96%;
- b) K-factor governs the relationship between R&M expenses and Gross Fixed Assets; the K-factor for the Control Period has been approved as 0.96%, and the same K-factor has been considered for computation of normative R&M Expenses for FY 2020-21;

4.3.11 The normative R&M expenses approved for FY 2020-21 are shown in the following Table:

Table 7: Approved R&M Expenses for FY 2020-21 (Rs. Crore)

Particulars	Approved in T.O. dt. 07.03.2020	AEGCL Submission	Approved after Truing up
Opening GFA for previous year	1972.92	1,968.05	1968.05
Closing GFA for previous year	2377.01	2,388.54	2388.31
Average GFA for previous year	2174.97	2,178.29	2,178.18
K Factor	0.96%	0.96%	0.96%
WPI Inflation	2.98%	2.96%	2.96%
R&M Expense	21.50	21.53	21.53
Less: AMC of SCADA/EMS	0.56		0.38
Normative R&M Expenses for the year	20.94	21.53	21.15

A&G Expenses

4.3.12 For computation of A&G expenses for FY 2020-21, the Commission has adopted the following approach:

- a) The A&G expenses approved after True-up for FY 2019-20 have been considered as base expenses;
- b) WPI inflation has been computed as average increase of WPI index for period from FY 2017-18 to FY 2019-20, which works out to 2.96%.

4.3.13 The normative A&G expenses for FY 2020-21 are shown in the following Table:

Table 8: Approved A&G Expenses for FY 2020-21 (Rs. Crore)

Particulars	Approved in T.O. dt. 07.03.2020	AEGCL Submission	Approved after Truing up
A&G Expenses for Previous Year	9.68	9.68	9.68
WPI Inflation	2.98%	2.96%	2.96%
Normative A&G Expenses for the year	9.97	9.97	9.97

4.3.14 As regards the Training Expenses, in the Tariff Order dated March 7, 2020, the Commission had approved additional amount of Rs. 30 lakh as training expenses for AEGCL for FY 2020-21. AEGCL has claimed it has conducted the relevant Training to the Employees and Rs. 24 Lakh has been expended in FY 2020-21. The Commission had verified the expenses from the audited accounts and considers this amount in the true up for FY 2020-21.

4.3.15 The normative O&M expenses approved by the Commission for FY 2020-21 are shown in the following Table:

Table 9: Normative O&M Expenses approved by Commission for FY 2020-21 (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dt. 07.03.2020	AEGCL	Approved after Truing up
1	Employee Expenses	172.07	173.95	173.95
2	Repairs and Maintenance Expenses	20.94	21.53	21.15
3	Administrative & General Expenses	9.97	9.97	9.97
4	Training Expenses	0.30	0.24	0.24
Total		203.28	205.69	205.30

4.3.16 Further, as per 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. Hence, for undertaking sharing of gains or losses, the Commission has excluded the terminal liabilities from normative as well as actual Employee expenses. Accordingly, terminal liabilities are allowed on actual basis.

4.3.17 The sharing of (gains)/losses on account of O&M Expenses is shown in the following Table:

Table 10: Sharing of (gains)/losses for O&M Expenses for FY 2020-21 (Rs. Crore)

Sr. No.	Particulars	Actual *	Normative	Gains/ (losses)	Gains/(Losses) to be shared with APDCL
		a	b	c=(b-a)	d=c x 1/3
1	Employee Cost	140.31	173.95	33.64	
2	Less: Terminal Benefits	22.80	22.80	-	
3	Employee Cost excl. Terminal benefits	117.51	151.15	33.64	11.21
4	R&M expenses	14.33	21.15	6.82	2.27
5	A&G Expenses	8.89	9.97	1.07	0.36
6	Total	140.73	182.27	41.54	13.85

Note – * - As per audited accounts

No sharing of gains or losses has been considered for Terminal liabilities.

4.3.18 Since, normative O&M expenses are higher than actual expenses, the gain of Rs. 13.85 Crore has been shared and passed on through the ARR.

4.4 Capitalisation

4.4.1 AEGCL submitted that 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 actual Capitalisation in FY 2020-21 by AEGCL excluding SLDC and its funding, is shown in the following Table:

Table 11: Actual Capitalisation as submitted by AEGCL for FY 2020-21 (Rs. Crore)

Sr. No.	Name of the Scheme	Total Capitalisation	Grant	Loan
1	ADB	33.77	24.31	9.45
2	NEC	0.71	0.64	0.07
3	NLCPR	11.82	10.64	1.18
4	PSDF	81.50	81.50	-
5	TDF	23.00	23.00	-
6	Annual Plan	11.36	-	11.36
7	AIIB	0.12	0.09	0.03
8	O&M	2.22	-	2.22
9	Deposit Works	5.12	5.12	-
	Total	169.63	145.30	24.33

Sr. No.	Name of the Scheme	Total Capitalisation	Grant	Loan
10	Less: Capitalisation of SLDC	0.17	0.00	0.17
11	Total AEGCL excluding SLDC	169.46	0.00	24.16

4.4.2 Accordingly, all new addition of assets is created by funding from grants and loan. The funding of capitalisation as submitted by AEGCL is shown in the following Table:

Table 12: Funding of Capitalisation for FY 2020-21 as submitted by AEGCL (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dt. 07.03.2020	AEGCL Submission
1	Grant	339.03	145.30
2	Equity	0	0
3	Debt	65.06	24.16
4	Total Capitalization	404.09	169.46

Commission's Analysis

4.4.3 The Commission notes that the actual capitalization achieved in FY 2020-21 is only slightly higher than the values approved in the Tariff Order dated March 7, 2020. The Commission in the Tariff Order dated March 7, 2020 approved capitalisation of Rs. 140.00 Crore for FY 2020-21, against which AEGCL has achieved capitalisation of Rs. 169.46 Crore.

4.4.4 For the purpose of true up, the Commission has considered the actual capitalisation for FY 2020-21 based on the audited accounts and certified allocation statement of AEGCL and SLDC. As regards the funding of capitalisation, the Commission has considered the actual funding as submitted by AEGCL.

4.4.5 In view of the above, the Capitalisation and its funding approved by the Commission in the true-up for FY 2020-21 is shown in the following Table:

Table 13: Capitalisation for FY 2020-21 approved by the Commission (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dt. 07.03.2020	AEGCL	Approved after Truing up
1	Capitalisation	404.69	169.46	163.46
	Funding			
3	Equity	0.00	0.00	0.00
4	Grant	339.03	145.30	145.30
5	Loan	65.06	24.16	24.16
6	Total	404.69	169.46	169.46

4.5 Depreciation

4.5.1 The Commission had approved the Depreciation of Rs. 29.79 Crore for FY 2020-21 in the Order dated March 07, 2020. As against this, AEGCL has claimed depreciation of Rs. 51.80 Crore in the Truing up for FY 2020-21.

4.5.2 AEGCL submitted that it has calculated Depreciation taking into consideration the opening balance of assets and actual capitalisation during FY 2020-21. AEGCL has not considered depreciation on assets created out of Grants.

Commission's Analysis

4.5.3 The Commission has considered the opening GFA for FY 2020-21 equal to the closing GFA approved in True up of FY 2019-20 after excluding the assets of SLDC. The Commission has computed depreciation as per scheduled rates specified in the Tariff Regulations, 2018.

4.5.4 As per Regulation 32 of the MYT Regulations, 2018, the total depreciation during the life of the asset shall not exceed 90% of the original cost of Asset. The Commission has computed the depreciation separately for assets added under each asset head in each year. The Commission has disallowed the depreciation in excess of 90% of the original cost of asset under different asset heads.

4.5.5 In line with the approach adopted in the previous Orders and as specified in the MYT Regulations, 2018, the Commission has not considered the depreciation on assets funded through grants, consumer contribution or capital subsidy, for FY 2020-21.

4.5.6 The depreciation approved in the truing up for FY 2020-21 is given in the Table below:

Table 14: Depreciation approved for FY 2020-21 (Rs. Crore)

Sr. No.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2018
1	Land owned under full ownership	38.10	0.57	-	-
	Land under lease			3.34%	-
2	Building	50.00	5.64	3.34%	1.20
3	Hydraulic	2.64	-	5.28%	-
4	Other Civil Works	110.63	17.22	3.34%	3.98
5	Plant & Machinery	1,116.06	125.98	5.28%	58.27
6	Lines & Cable Net work	1,057.91	16.86	5.28%	35.19
7	Vehicles	4.96	-	9.50%	0.07
8	Furniture & Fixtures	4.58	2.50	6.33%	0.26
9	Office Equipment	3.43	0.70	6.33%	0.24
10	Grand Total	2,388.31	169.46		99.22
14	Less: Depreciation for Grants/ Consumer Contribution				68.12
15	Net Total				31.10

4.5.7 The Commission accordingly approves Depreciation of Rs. 31.10 Crore for FY 2020-21 after truing up.

4.6 Interest and Finance Charges

4.6.1 The Commission had approved Interest and Finance Charges of Rs. 16.40 crore for FY 2020-21 in the Order dated March 07, 2020 and Review Order dated July 27, 2020. As against this, AEGCL has claimed Interest and finance charges of Rs. 12.98 Crore for FY 2020-21.

Commission's Analysis

4.6.2 The Commission has approved Interest on loan capital for FY 2020-21 on normative basis as per MYT Regulations, 2018. The Normative Loan Outstanding as on April 1, 2020 has been considered equal to the closing normative loan approved in the Truing up for FY 2019-20.

4.6.3 The Commission has considered the opening net normative loan as on April 1, 2020 as Rs. 212.62 Crore. The addition of loan has been considered equal to debt portion of capitalised works as approved by the Commission in this Order. The loan repayment

has been considered equivalent to depreciation approved in this Order.

4.6.4 As per MYT Regulations, 2018, weighted average rate of interest shall be computed based on outstanding loan as on April 1, 2020. The Commission sought details of outstanding loan as on April 1, 2020 along with documentary evidences. The Commission notes that ADB loan of Rs. 95.68 Crore at interest rate of 10.50% and State Government loan of Rs. 535.34 Crore at weighted average interest rate of 10.00% are outstanding as on April 1, 2020. Accordingly, weighted average interest rate has been computed as 10.08% for computation of interest on loan capital.

4.6.5 The Interest on loan capital as approved by the Commission for FY 2020-21 is shown in the following Table:

Table 15: Approved Interest on loan Capital for FY 2020-21 (Rs. Crore)

Particulars	Approved in T.O. dt. 07.03.2020	AEGCL	Approved after Truing up
Net Normative Opening Loan	145.09	145.09	212.62
Addition of normative loan during the year	65.06	24.16	24.16
Normative Repayment during the year	29.79	51.80	31.10
Net Normative Closing Loan	180.36	117.45	205.68
Interest Rate	10.08%	9.88%	10.08%
Interest Expenses on Loan	16.40	12.97	21.07
Finance Charges		0.01	0.01
Total Interest and Finance Charges	16.40	12.98	21.08

4.6.6 The Commission considers Interest on loan Capital as Rs 21.08 Crore in the truing up for FY 2020-21.

4.7 Return on Equity

4.7.1 AEGCL has claimed the Return on Equity of Rs. 15.49 Crore for FY 2020-21 as compared to the RoE of Rs. 15.49 crore approved by the Commission in the Tariff Order dated March 7, 2020. AEGCL has considered no equity addition during FY 2020-21.

Commission's Analysis

4.7.2 The Commission has approved the Return on Equity in accordance the MYT Regulations, 2018. The Commission has considered the addition of equity equivalent to equity portion of capitalised works as approved in this Order, which is Nil. Therefore, the approved Return on Equity at 15.50% is shown in the Table below:

Table 16: Return on Equity approved by the Commission for FY 2020-21 (Rs. Crore)

Sr · N o.	Particulars	Approved in T.O. dtd 07.03.2020	AEGCL	Approved after Truing up
1	Opening Equity Capital	99.93	99.93	99.93
2	Equity addition during the year	-	-	-
3	Closing Equity	99.93	99.93	99.93
5	Rate of Return on equity	15.50%	15.50%	15.50%
6	Return on Equity	15.49	15.49	15.49

4.7.3 **The Commission approves the Return on Equity of Rs. 15.49 Crore for FY 2020-21 after Truing up.**

4.8 Interest on Working Capital (IoWC)

4.8.1 AEGCL has claimed IoWC of Rs. 11.17 Crore in the Truing Up for FY 2020-21.

Commission's Analysis

4.8.2 The Commission has computed IoWC in accordance with the MYT Regulations, 2018. The rate of Interest has been considered equal to State Bank of India MCLR Rate as on 1st April of FY 2020-21 plus 300 basis points, i.e., 10.05%

4.8.3 For computation of working capital requirement, the normative O&M Expenses and actual revenue billed as receivables have been considered. IoWC approved by the Commission in the truing up for FY 2020-21 is shown in the following Table:

**Table 17: Interest on Working Capital for FY 2020-21 as approved by the Commission
(Rs. Crore)**

Sr. No.	Particulars	Approved in Order dtd 07.03.20	AEGCL	Approved after True-up
1	O&M expenses for one month	16.94	17.14	17.11
2	Maintenance spares @ 15% of O&M Expenses	30.49	30.85	30.80
3	Receivables for two months	62.97	63.09	62.97
4	Total Working Capital requirement	110.40	111.09	110.87
5	Rate of Interest	11.22%	10.05%	10.05%
6	Interest on Working Capital	12.38	11.17	11.15

4.8.4 Accordingly, the Commission approves Interest on Working Capital of Rs. 11.15 Crore in the Truing up for FY 2020-21.

4.9 Other Debits

4.9.1 AEGCL has claimed Other Debits of Rs.0.09 Crore for FY 2020-21 based on the Audited Accounts as against NIL approved in the Order dated March 07, 2020.

Commission's Analysis

4.9.2 The Commission has analysed the details and justification submitted by AEGCL for Other Debits for FY 2020-21. The Commission notes that Other Debits includes the expenses towards loss on obsolescence of stores, compensation for injuries, deaths and damages to outsiders. The Commission is of view that these expenses are well within the control of AEGCL, and cannot be passed on to the consumers through the ARR. Hence, the Commission has allowed only Loss to fixed assets on account of flood, cyclone, fire, etc., under Other Debits for FY 2020-21.

4.9.3 Accordingly, the Commission considers Other Debits as Rs.0.04 Crore for FY 2020-21.

4.10 BST for Pension Fund (Special Charges for Terminal Benefits)

4.10.1 In the MYT Order dated March 07, 2020, the Commission had approved special charges on Bulk Supply Tariff at 15 paise per unit amounting to Rs. 145.72 Crore for

FY 2020-21. AEGCL has claimed Rs. 137.82 Crore as BST for Pension Fund as per the audited annual accounts for FY 2020-21.

Commission's Analysis

4.10.2 The Commission approves the BST for Pension Fund (Special Charges for Terminal Benefits) of Rs. 137.82 Crore for FY 2020-21 as claimed by AEGCL based on audited accounts.

4.11 Income Tax

4.11.1 AEGCL has claimed NIL amount towards Income Tax as per the audited accounts for FY 2020-21.

Commission's Analysis

4.11.2 The Commission has verified the actual Income Tax paid on the basis of Tax paid challans submitted by AEGCL and has hence, considered the Income Tax as NIL Crore for FY 2020-21.

4.12 Incentive for Transmission Availability

4.12.1 AEGCL has billed the amount of Rs 0.07 Crore towards incentive for Transmission Availability higher than normative Availability as per MYT Regulations, 2018. This had been calculated based on the actual monthly transmission availability data. For the month in which the transmission availability was higher than 98.50% (Normative availability), transmission incentive bill was raised and for the month in which transmission availability was less than 98.00%, disincentive bill was raised to APDCL.

Commission's Analysis

4.12.2 The MYT Regulations, 2018 specifies Normative Transmission Availability of 98% for full recovery of transmission charges and 98.5% for incentive consideration.

4.12.3 The actual Transmission Availability for AEGCL for FY 2020-21 is 98.33% on annual basis. The Commission sought the details of monthly Transmission Availability duly certified by SLDC, which was submitted by AEGCL. Also, the computation and payment of Transmission Charges has been linked to monthly Transmission Availability computed as per the MYT Regulations, 2018. Accordingly, the Commission

has computed the Incentive on Transmission Availability as shown in the following Table:

Table 18: Incentive on Transmission Availability for FY 2020-21 as approved by the Commission (Rs. Crore)

Sr. No.	Month	No. of Days in Month	Monthly Transmission Charges	Actual Availability (%)	Transmission Charges inclusive of incentive	Incentive
1	Apr-17	30	28.82	98.37%	28.82	0.00
2	May-17	31	29.79	98.33%	29.79	0.00
3	Jun-17	30	28.82	98.47%	28.82	0.00
4	Jul-17	31	29.79	99.15%	29.98	0.20
5	Aug-17	31	29.79	98.12%	29.79	0.00
6	Sep-17	30	28.82	97.55%	28.69	-0.13
7	Oct-17	31	29.79	97.53%	29.64	-0.14
8	Nov-17	30	28.82	98.33%	28.82	0.00
9	Dec-17	31	29.79	98.09%	29.79	0.00
10	Jan-18	31	29.79	98.53%	29.79	0.01
11	Feb-18	28	26.90	98.62%	26.94	0.03
12	Mar-18	31	29.79	98.82%	29.88	0.10
	Total	365	350.70	98.33%	350.76	0.06

4.12.4 The Commission approves the Incentive of Rs. 0.06 Crore on account of higher Transmission Availability, which has been added to the ARR.

4.13 Non-Tariff Income

4.13.1 The Commission had approved the Non-Tariff Income of Rs. 45.26 Crore for FY 2020-21 in the Tariff Order dated March 07, 2020.

4.13.2 AEGCL submitted that NTI mainly comprises income from investments and miscellaneous receipts. AEGCL submitted that it has considered actual NTI of Rs. 56.48 crore earned during FY 2020-21 in the truing up.

4.13.3 AEGCL submitted that 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 2020-21 as the amount is part of Other Business Income of AEGCL.

4.13.4 As regards the deduction of interest on GPF from NTI, AEGCL submitted that 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 Tariff Petition. AEGCL added that the Commission vide Tariff Order dated 07.03.2020 has approved deduction of interest on GPF from Non-Tariff Income, therefore, AEGCL requested the Commission to deduct the interest on GPF amounting to Rs. 2.69 Crore from NTI in the truing-up for FY 2020-21.

4.13.5 In view of the above, AEGCL requested the Commission to approve the NTI amounting to Rs. 56.48 Crore for FY 2020-21.

Commission's Analysis

4.13.6 The Commission has verified the head-wise NTI from the Audited Accounts of AEGCL for FY 2020-21.

4.13.7 As regards Rs. 2.47 Crore appearing as Dividend from North East Transmission Company Limited (NETCL), the same amounts to Other Business Income of AEGCL, and hence, the Commission has considered 1/3rd of this amount, in accordance with the MYT Regulations, 2018. The Commission has deducted the reducing the Interest income of Rs. 2.47 crore on GPF, in accordance with the philosophy elaborated in previous Orders.

4.13.8 In view of the above, the Commission approves the Non-Tariff Income at Rs. 56.48 Crore for FY 2020-21, for the purpose of truing up.

4.14 Revenue from Operations

4.14.1 AEGCL has claimed Revenue of Rs. 368.98 Crore for FY 2020-21 for Truing up purpose.

Commission's Analysis

4.14.2 The Commission had approved net ARR of Rs. 377.80 Crore for AEGCL for FY 2020-21 in the Order dated March 07, 2020. During FY 2020-21, AEGCL billed APDCL based on the MYT Order dated March 07, 2020. The audited accounts for FY 2020-21 reflects the actual revenue of Rs. 365.98 Crore [after reducing the cumulative Revenue Surplus along with the holding cost approved by the Commission after Truing up for

FY 2018-19, vide Review Order dated 27.07.2020 and surplus amount of BST {Difference between the approved BST (Rs.145.72 Crore) and actual BST (Rs.136.90 Crore)}}]

4.14.3 In view of the above, the Commission approves the actual revenue of Rs. 365.98 Crore as per the audited accounts, for the Truing up for FY 2020-21.

4.15 ARR after Truing Up of FY 2020-21

4.15.1 Considering the above heads of expense and revenue as per the Audited Accounts for FY 2020-21 and after due prudence check, the net ARR and Revenue Gap/(Surplus) approved after true-up for FY 2020-21 is shown in the following Table:

Table 19: ARR approved after Truing up for FY 2020-21 (Rs. Crore)

Sr. No.	Particulars	Tariff Order	Proposed by AEGCL	Approved after truing up
1	O&M Expenses	203.28	205.69	205.69
a	Employee Cost	172.07	173.95	173.95
b	R&M Expenses	20.94	21.53	21.15
c	A&G Expenses	9.97	9.97	9.97
d	Training Expenses	0.30	0.24	0.24
2	Depreciation	29.79	51.80	31.10
3	Interest & Finance Charges	16.40	12.98	21.08
4	Interest on Working Capital	12.38	11.17	11.15
5	BST for Pension Trust Fund	145.72	137.82	137.82
6	Return on Equity	15.49	15.49	15.49
7	Income Tax	-	-	-
8	Other debits		0.09	0.04
9	Less: Non-Tariff Income/ Other Income	45.26	56.48	56.48
10	Aggregate Revenue Requirement	377.80	378.56	365.50
11	Sharing of (Gains)/Losses	-	(13.98)	(13.85)
12	ARR after sharing	377.80	364.58	351.66
13	Incentive on Transmission Availability	-	0.07	0.06
14	ARR after Incentive	377.80	364.65	351.72
15	Revenue with Approved Tariff	377.80	377.80	377.80
16	Revenue from STOA/MTOA Charges		12.02	12.02
17	Credit bill already served to APDCL as refund of surplus amount of BST		8.82	8.82
18	Less Revenue: Adjustment of cumulative			3.01

Sr. No.	Particulars	Tariff Order	Proposed by AEGCL	Approved after truing up
	Revenue Surplus after Truing up for FY 2018-19, vide Review Tariff Order dated 27.07.2020,			
18	Revenue Gap/(Surplus)	-	(16.36)	(26.27)

4.15.2 The Commission has approved the Net ARR after sharing of (Gains)/Losses, Incentive after Truing-up for FY 2020-21 as Rs. 351.72 Crore. After considering the Revenue at approved Tariff and Revenue from STOA/MTOA charges, the Revenue Surplus of Rs. 26.27 Crore is approved after truing up for FY 2020-21, with associated holding cost. This Surplus has been considered for adjustment in the net ARR of APDCL during FY 2022-23.

5 Annual Performance Review for FY 2021-22

5.1 Methodology for Annual Performance Review

5.1.1 The Commission had approved the ARR and Tariff for FY 2021-22 vide the Tariff Order dated February 15, 2021.

5.1.2 The MYT Regulations, 2018, specifies that the Commission shall undertake the APR and True-up for the respective years of the Control Period from FY 2019-20 to FY 2021-22, as reproduced below:

*“10.3 The scope of **the annual review** and True up shall be a comparison of the actual performance of the Generating Company or Transmission Licensee or SLDC or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise the following:*

...

b) Annual Review: a comparison of the revised performance targets of the applicant for the current financial year with the approved forecast in the Tariff order corresponding to the Control period for the current financial year subject to prudence check including adjusting trajectories of uncontrollable and controllable items.” (emphasis added)

5.1.3 AEGCL submitted the APR Petition for FY 2021-22, supported by actual information available till September 2021 and estimated values for the next six months. AEGCL has sought APR for FY 2021-22, with the estimated Revenue Gap/(Surplus), to be recovered from APDCL.

5.1.4 However, from the above said Regulation, it is clear that the main objective of APR is to compare the estimated performance for FY 2021-22 vis-à-vis approved forecast in the Tariff Order dated February 15, 2021. The Revenue Gap/(Surplus) arising out of APR for FY 2021-22 shall not be passed on to the beneficiaries, and the same shall be considered at the time of Truing-up of FY 2021-22 only.

5.1.5 In the present Chapter, the Commission has analysed the submission of all the elements of ARR vis-à-vis approved values in the Tariff Order for FY 2021-22. The Commission has computed the Revenue Gap/(Surplus) as an indication of the performance in FY 2021-22. No sharing of gains/(losses) has been undertaken at this

stage and the same shall be considered at the time of Truing up for FY 2021-22.

5.2 Transmission Loss

5.2.1 AEGCL submitted the Transmission Loss of 3.30% for FY 2021-22, as shown in the following Table:

Table 20: Transmission Loss for FY 2021-22 as submitted by AEGCL (MU)

Sr. No.	Particulars	Approved in T.O. dt. 15.02.2021	AEGCL Estimation
1	Energy Injected		10662.15
2	Energy Sent Out to APDCL		9899.92
3	Energy Sent Out to OA Consumers		410.37
4	Total Energy Sent Out		10310.29
4	Transmission Loss		351.86
5	Transmission Loss (%)	3.29%	3.30%

Commission's Analysis

5.2.2 The Commission observes that the Transmission Loss submitted by AEGCL is higher than the targeted loss level approved in the Tariff Order dated March 7, 2020. AEGCL should strive to meet the target set by the Commission, as increase in the Transmission Loss levels will result in increase in the power purchase quantum and cost of APDCL, thereby increasing the burden on the consumers.

5.3 Transmission Availability

5.3.1 AEGCL has submitted Transmission Availability for FY 2021-22 for first six months based on actual figures, which comes out to 98.33%. AEGCL has also claimed Incentive of Rs. 1.31 Cr for FY 2021-22.

Commission's Analysis

5.3.2 The MYT Regulations, 2018 specifies Normative Transmission Availability of 98% for full recovery of transmission charges and 98.5% for incentive consideration. Also, the computation and payment of Transmission Charges has been linked to monthly Transmission Availability computed as per the MYT Regulations, 2018.

5.3.3 AEGCL should strive for maintaining and improving its Transmission Availability. The

computation of incentive/disincentive on account of Transmission Availability shall be undertaken at the time of truing up for FY 2021-22 in line with the MYT Regulations, 2018.

5.4 Operation and Maintenance Expenses

5.4.1 AEGCL submitted that O&M expenses for FY 2021-22 comprise employee expenses, R&M expenses, and A&G expenses, and have been computed on normative basis in accordance with Regulation 66.9 and 66.10 of the MYT Regulations, 2018. The normative expenses as claimed in the true-up for FY 2020-21 have been considered as the base expenses. The average WPI and CPI have been considered as 2.41% and 6.00%, respectively. The normative O&M expenses submitted by AEGCL for FY 2021-22 are shown in the Table below:

Table 21: Normative O&M Expenses Projected by AEGCL for FY 2021-22 (Rs. Crore)

S.N.	Particulars	Approved in T.O. dt. 15.02.2021	AEGCL Submission
1	O&M Expenses	219.60	221.15
a	Employee Cost	185.10	186.23
b	R&M Expenses	23.84	24.32
c	A&G Expenses	10.26	10.21
d	Training Expenses	0.40	0.40

5.4.2 AEGCL has also submitted the revised estimates of each component of O&M expenses for FY 2021-22, based on the actual expenses in the first six months and estimates for the remaining six months. The claim of AEGCL under various heads of O&M expenses is discussed below.

5.4.3 Employee Expenses

AEGCL has estimated Employee Expenses considering trend of past year's employee expense, increase in dearness allowance, and its impact on other allowances such as HRA, field allowances, PF, etc. Additionally, AEGCL considered increase in salary due to regular increments as well as promotion and new recruitments. AEGCL has estimated the Employee Expenses of Rs. 186.23 Crore for FY 2021-22.

5.4.4 R&M Expenses

AEGCL submitted that R&M Expenses are generally incurred on maintaining the transmission assets in order to ensure uninterrupted operations. AEGCL submitted that the current infrastructure of transmission system is old, and the majority of the assets have already lapsed their life. To maintain the assets in a more efficient way, AEGCL has been carrying out the repair and maintenance activities.

While arriving at estimated 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. AEGCL added that the R&M works during 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 the H1 expenses.

AEGCL has estimated R&M expenses of Rs. 24.32 Crore for FY 2021-22, as against the R&M Expenses of Rs. 23.84 Crore approved in the Tariff Order dated February 15, 2021.

5.4.5 A&G Expenses

AEGCL has estimated administrative expenses including rents, telephone and other communication expenses, professional charges, conveyance and traveling allowances, etc. While estimating A&G expenses for FY 2021-22, actual A&G expenses incurred during first 6 months plus estimate for the next 6 months has been considered. Expenses for H2 are usually in line with the expenses of H1.

AEGCL has projected the A&G Expenses of Rs. 10.21 Crore for FY 2021-22 as against the A&G Expenses of Rs. 10.26 Crore for FY 2021-22 approved in the Tariff Order dated February 15, 2021.

5.4.6 Expenses towards Training and Capacity Building

AEGCL has submitted that on account of global Covid-19 pandemic, most of the scheduled training courses in the 1st half (April 21 to Sep 21) of FY 2021-22 have been conducted online, however, the online/offline training courses have been initiated by AEGCL for the 2nd half of FY 2021-22.

AEGCL estimated the cost of the Training courses as Rs. 0.40 Crore and requested the Commission to allow the Training and Capacity Building expenses.

Commission's Analysis

5.4.7 The Commission has approved the O&M Expenses on normative basis in the Tariff Order as per MYT Regulations, 2018. AEGCL has submitted O&M expenses based on previous year's O&M expenses and applicable increase towards Salaries, Dearness Allowance, etc.

5.4.8 For computation of normative employee expenses for FY 2021-22, the Commission has adopted the following approach:

- d) The normative employee expenses approved for FY 2020-21 have been considered as base expenses for FY 2021-22;
- e) CPI inflation has been computed as average increase of CPI for the period from FY 2018-19 to FY 2020-21, which works out to 6.00%;
- f) Considering the expansion of transmission network over the FY 2021-22, growth factor of 1% has been considered.

5.4.9 The normative employee expenses approved for FY 2021-22 is shown in the following Table:

Table 22: Approved Employee Expenses for FY 2021-22 (Rs. Crore)

Particulars	Approved in T.O. dt. 15.02.21	AEGCL	APR FY 2021-22
Base Employee Cost	173.95	173.95	173.95
CPI Inflation	5.35%	6.00%	6.00%
Growth factor	1.00%	1.00%	1.00%
Employee expenses	185.10	186.23	186.23

5.4.10 For computation of normative R&M Expenses for FY 2021-22, the Commission has considered the following approach:

- a) WPI inflation for computation of R&M Expenses works out to 2.41% as per MYT Regulations, 2018, based on average increase of WPI for the period from FY 2018-19 to FY 2020-21;
- b) K-factor has been considered as 0.96% as approved in MYT Order dated March 1, 2019;
- c) Since K-factor has been computed on the basis of average GFA for projection of R&M expenses for the Control Period, average GFA for the previous year has been

considered;

5.4.11 The normative R&M expenses approved for FY 2021-22 is shown in the following Table:

Table 23: Approved R&M Expenses for FY 2021-22 (Rs. Crore)

Particulars	Approved in T.O. dt. 15.02.21	AEGCL	APR FY 2021-22
Opening GFA for previous year	2,393.40	2388.28	2388.31
Closing GFA for previous year	2,507.05	2,557.74	2,557.77
Average GFA for previous year	2,450.22	2,473.01	2,473.04
K Factor	0.96%	0.96%	0.96%
WPI Inflation	2.96%	2.41%	2.41%
R&M Expenses	24.22	24.31	24.31
Less: AMC of SCADA/EMS transferred to SLDC	0.38		0.38
Revised Normative R&M Expenses	23.84		23.93

5.4.12 For computation of A&G expenses for FY 2021-22, the Commission has adopted the following approach:

- a) The normative A&G expenses approved for FY 2020-21 have been considered as base expenses for computation of normative A&G expenses for FY 2021-22;
- b) As discussed in earlier para, the Commission has considered the WPI inflation of 2.41%.

5.4.13 The normative A&G expenses approved for FY 2021-22 is shown in the following Table:

Table 24: Approved A&G Expenses for FY 2021-22 (Rs. Crore)

Particulars	Approved in T.O. dt. 15.02.21	AEGCL	APR FY 2021-22
A&G Expenses for Previous Year	9.97	9.97	9.97
WPI Inflation	2.96%	2.41%	2.41%
A&G Expenses	10.26	10.21	10.21

5.4.14 As regards the Training Expenses, the Commission in the Tariff Order dated February 15, 2021 had approved additional amount of Rs. 0.40 Crore as training expenses for AEGCL for FY 2021-22 and retains this amount in the APR for FY 2021-22. Balance requirement if any for training expenses should be met from the normative O&M

expenses.

5.4.15 In view of the above, the Commission provisionally considers the O&M expenses as shown in the following Table in the APR for FY 2021-22:

Table 25: Approved O&M Expenses for FY 2021-22 (Rs. Crore)

Particulars	Approved in T.O. dt. 15.02.21	Proposed by AEGCL	Approved for APR
Total O&M Expenses	219.59	221.15	220.77
Employee Expenses	185.10	186.23	186.23
R&M Expenses	23.84	24.32	23.93
A&G Expenses	10.26	10.21	10.21
Training Expenses	0.40	0.40	0.40

5.5 Capitalisation

5.5.1 AEGCL submitted that the Capitalisation for FY 2021-22 has been estimated based on 6 months actual addition of assets and estimation of asset addition for the next 6 months. The funding of Capital Expenditure is envisaged 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 has been considered as Rs 66.76 crore and Rs 83.94 crore from grants and loans, respectively.

Commission's Analysis

5.5.2 The Commission in Tariff Order dated February 15, 2021 had approved capitalisation of Rs. 682.73 Crore for FY 2021-22, against which AEGCL has estimated capitalisation of Rs. 150.70 Crore. As FY 2021-22 is almost completed, the Commission provisionally considers the Capitalisation submitted by AEGCL for APR of FY 2021-22.

5.5.3 The Commission has accepted the funding of capitalized works as proposed by AEGCL, as shown in the following Table:

Table 26: Funding of capitalised works for FY 2021-22 as considered by the Commission (Rs. Crore)

Particulars	Approved in T.O. dated 15.02.21	Approved for APR
Grant	605.27	66.76
Equity	0.00	0.00
Debt	77.46	83.94
Total Capitalisation	682.73	150.70

5.6 Depreciation

5.6.1 The Commission had approved the Depreciation of Rs. 35.97 Crore for FY 2021-22 in the Tariff Order dated February 15, 2021. As against this, AEGCL has claimed depreciation of Rs. 51.74 Crore in the APR for FY 2021-22.

Commission's Analysis

5.6.2 The Commission has considered the opening GFA for FY 2021-22 equivalent to the closing GFA for FY 2020-21 as approved in this Order. The Commission has computed depreciation as per scheduled rates specified in the MYT Regulations, 2018.

5.6.3 As per the MYT Regulations, 2018, the total depreciation during the life of the asset shall not exceed 90% of the original cost of Asset. The Commission has computed the depreciation separately for assets added under each asset head in each year. The Commission has disallowed the depreciation in excess of 90% of the original cost of asset under different asset heads. The Commission has not considered the depreciation on assets funded through grants, consumer contribution or capital subsidy, for FY 2021-22.

5.6.4 The depreciation provisionally approved for FY 2021-22 in the APR is given in the Table below:

Table 27: Depreciation approved for FY 2021-22 (Rs. Crore)

Sl.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2018
1	Land owned under full ownership	38.67	8.32	-	-
2	Land under lease	-	-	3.34%	-
3	Building	55.65	4.00	3.34%	1.36
4	Hydraulic	2.64	-	5.28%	-
5	Other Civil Works	127.85	3.93	3.34%	4.34
6	Plant & Machinery	1,242.03	54.96	5.28%	63.05
7	Lines & Cable Network	1,074.77	75.98	5.28%	37.64
8	Vehicles	4.96	-	9.50%	0.07
9	Furniture & Fixtures	7.08	2.50	6.33%	0.41
10	Office Equipment	4.13	1.00	6.33%	0.36
11	Grand Total	2,557.77	150.70		107.23
15	Less: Depreciation for Grants/ Consumer Contribution				73.59
	Net Total				33.65

5.6.5 The Commission provisionally approves Depreciation of Rs. 33.65 Crore in the APR for FY 2021-22.

5.7 Interest and Finance Charges

5.7.1 The Commission had approved Interest and Finance Charges of Rs. 24.06 crore for FY 2021-22 in the Tariff Order dated February 15, 2021. As against this, AEGCL has claimed Interest and finance Charges of Rs. 12.72 Crore in the APR for FY 2021-22.

Commission's Analysis

5.7.2 The Commission in the Tariff Order dated February 15, 2021 had approved the Interest and Finance Charges of Rs. 24.06 Crore on normative basis for FY 2021-22 as per MYT Regulations, 2018. The opening net normative loan for FY 2021-22 is considered as Rs. 205.85 Crore, equal to the closing net normative loan for FY 2020-21, as discussed in the earlier Chapter. The addition of loan has been considered equal to debt portion of capitalised works as approved in this Order. The loan repayment has been considered equivalent to Depreciation approved in this Order.

5.7.3 As per MYT Regulations, 2018, weighted average rate of interest shall be computed based on actual outstanding loan as on April 1, 2021. The Commission sought details of outstanding loan as on April 1, 2021 along with documentary evidences. Accordingly, weighted average interest rate has been computed as 10.08% for computation of interest on loan capital.

5.7.4 The Interest on loan capital as approved by the Commission for FY 2021-22 is shown in the following Table:

Table 28: Approved Interest on loan Capital for FY 2021-22 (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dt. 15.02.21	AEGCL Submission	APR FY 2021-22
1	Net Normative Opening Loan	217.95	117.45	205.68
2	Addition of normative loan during the year	77.46	83.94	83.94
3	Normative Repayment during the year	35.97	51.74	33.65
4	Net Normative Closing Loan	259.44	149.64	255.97
5	Interest Rate	10.08%	9.97%	10.08%
6	Interest Expenses	24.06	12.71	23.26
7	Finance Charges		0.01	0.01
8	Total Interest and Finance Charges	24.06	12.72	23.27

5.7.5 The Commission provisionally considers Interest on loan Capital of Rs. 23.27 Crore in APR for FY 2021-22.

5.8 Return on Equity

5.8.1 The Commission approved the RoE of Rs. 15.49 Crore for FY 2021-22 in the Tariff Order dated February 15, 2021. As against this, AEGCL has claimed RoE of Rs. 15.49 Crore for FY 2021-22, calculated at 15.5% as specified in MYT Regulations 2018.

Commission's Analysis

5.8.2 The Commission considers the Return on Equity in accordance with the MYT Regulations, 2018. As stated earlier, the Commission has considered zero addition of equity against capitalisation during FY 2021-22. Therefore, the approved RoE at 15.50% is shown in the Table below:

Table 29: Return on Equity for FY 2021-22 approved by the Commission (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dt. 15.02.21	AEGCL Submission	Approved for APR
1	Opening Equity Capital	99.93	99.93	99.93
2	Equity addition during the year	0.00	0.00	0.00
3	Closing Equity	99.93	99.93	99.93
5	Rate of Return on equity	15.50%	15.50%	15.50%
6	Return on Equity	15.49	15.49	15.49

5.8.3 Accordingly, the Commission considers RoE of Rs15.49 Crore in APR for FY 2021-22.

5.9 Interest on Working Capital (IoWC)

5.9.1 The Commission approved IoWC of Rs. 11.06 Crore for FY 2021-22 in the Tariff Order dated February 15, 2021. As against this, AEGCL has claimed IoWC of Rs. 11.49 Crore for FY 2021-22, calculated as specified in MYT Regulations 2018.

Commission's Analysis

5.9.2 The Commission has computed IoWC in accordance with the MYT Regulations, 2018. The rate of Interest has been considered equal to State Bank of India MCLR rate as on 1st April, 2021 plus 300 basis points, i.e., 10.00%. For computation of working capital requirement, normative O&M expenses have been considered. Further, receivables have been considered equal to the revenue approved for FY 2021-22 in MYT Order. IoWC approved by the Commission for FY 2021-22 is shown in the following Table:

Table 30: Interest on Working Capital for FY 2021-22 as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dt. 15.02.21	AEGCL	APR FY 2021-22
1	O&M expenses for 1 month	18.30	18.43	18.40
2	Maintenance spares @ 15% of O&M Expenses	32.94	33.17	33.17
3	Receivables for two months	59.40	67.48	64.85
4	Total Working Capital	110.64	119.08	116.36
5	Rate of Interest	10.00%	9.65%	10.00%
6	Interest on Working Capital	11.06	11.49	11.64

5.9.3 Accordingly, the Commission provisionally approves IoWC of Rs. 11.64 Crore in the APR for FY 2021-22.

5.10 BST for Pension Fund

5.10.1 The Commission had approved BST for Pension fund at 15 paise per unit amounting to Rs. 146.64 Crore for FY 2021-22 in the Tariff Order dated February 15, 2021. AEGCL has claimed BST for Pension Fund of Rs. 148.50 Crore as per the estimated energy supplied to APDCL for FY 2021-22.

Commission's Analysis

5.10.2 The Commission approves BST for Pension Fund at 15 paise per unit on the energy transmitted to APDCL, as shown in the following Table:

Table 31: Approved BST for Pension Fund for FY 2021-22 (Rs. Crore)

Particulars	Approved in T.O. dt. 15.02.21	AEGCL	APR FY 2021-22
Energy transmitted to APDCL (MU)			9885.88
BST for Pension Fund at 15 paise per unit	146.64	148.50	148.29

5.10.3 Accordingly, the Commission provisionally approves BST for pension fund of Rs. 148.29 Crore in the APR for FY 2021-22.

5.11 Income Tax

5.11.1 AEGCL has not claimed any amount towards Income Tax for FY 2021-22.

Commission's Analysis

5.11.2 The Commission has not considered any provision towards Income Tax. The actual Income Tax paid shall be considered based on the documentary evidence submitted at the time of truing up of FY 2021-22, subject to prudence check.

5.12 Other Debits

5.12.1 AEGCL has considered Other Debits of Rs. 1.80 crore for FY 2021-22 due to loss of fixed assets on account of flood and cyclone.

Commission's Analysis

5.12.2 AEGCL has provided details for the Other Debits estimated for FY 2021-22, which already been incurred. The Commission provisionally approves the amount subject to prudence check at the time of true up FY 2021-22 based on documentary evidence.

5.13 Transmission Incentive

5.13.1 AEGCL has considered Transmission Incentive for higher availability of Rs. 1.31 crore for FY 2021-22.

Commission's Analysis

5.13.2 The incentive on Transmission Availability can be computed only after the year is completed and needs to be certified by the SLDC, in order to be considered for incentive. Hence, the Commission has not considered Incentive on Transmission Availability in the APR for FY 2021-22.

5.14 Non-Tariff Income

5.14.1 The Commission had approved the Non-Tariff Income at Rs. 45.26 Crore for FY 2021-22 in the Tariff Order dated February 15, 2021. As against this, AEGCL has submitted Non-Tariff Income of Rs. 56.48 Crore for FY 2021-22.

Commission's Analysis

5.14.2 The Commission provisionally considers Non-Tariff Income of Rs. 56.48 Crore, as submitted by AEGCL. The actual Non-Tariff income will be allowed at the time of true up, subject to prudence check.

5.15 ARR after Annual Performance Review of FY 2021-22

5.15.1 Considering the above heads of expense and revenue, the net ARR approved after APR for FY 2021-22 is shown in the following Table:

Table 32: ARR approved after APR for FY 2021-22 (Rs. Crore)

Sr. No.	Particulars	Approved in T.O. dt. 15.02.21	Proposed by AEGCL	Approved after APR
1	O&M Expenses	219.61	221.15	220.77
a	Employee Cost	185.10	186.23	186.23
b	R&M Expenses	23.84	24.32	23.93
c	A&G Expenses	10.26	10.21	10.21
d	Training Expenses	0.40	0.40	0.40
2	Depreciation	35.97	51.74	33.65
3	Interest and Finance Charges	24.06	12.72	23.27
4	Interest on Working Capital	11.06	11.49	11.64
5	BST for Pension Trust Fund	146.64	148.50	148.29
6	Return on Equity	15.49	15.49	15.49
7	Income Tax	-	-	-
8	Other debits		1.80	1.80
9	Contribution to Contingency Reserve			
10	Less: Non-Tariff Income/ Other Income	63.73	58.04	58.04
11	Aggregate Revenue Requirement	389.10	404.85	396.87
12	Net ARR	389.10	404.85	396.87
13	Incentive on Transmission Availability		1.31	-
14	ARR after Incentive	389.10	406.16	396.87

5.16 Revenue Gap/(Surplus) for FY 2021-22

5.16.1 AEGCL has claimed Revenue Gap of Rs. 5.70 Crore after APR for FY 2021-22.

Commission's Analysis

5.16.2 The Commission has computed the Revenue Gap/(Surplus) arising out of APR for FY 2021-22 as shown in the following Table:

Table 33: Revenue Gap/(Surplus) after APR for FY 2021-22 (Rs. Crore)

Sr. No.	Particulars	Proposed by AEGCL	Approved after APR
1	Net ARR	406.16	396.87
2	Revenue with Approved Tariff	389.10	389.10
3	Revenue from STOA/MTOA Charges	11.36	11.36
4	Revenue Gap/(Surplus)	5.70	(3.59)

5.16.3 The APR reveals a Surplus of Rs. 3.59 crore for FY 2021-22. It is only indicative, in the absence of Audited Annual Accounts for FY 2021-22. It will be considered during the Truing up process for FY 2021-22, after the Audited Annual Accounts are made available.

6 CAPITAL INVESTMENT PLAN OF AEGCL FOR FY 2022-23 TO FY 2024-25

6.1 Capital Investment Plan of AEGCL

6.1.1 AEGCL has submitted the Capital Investment Plan (CIP) for the Control Period from FY 2022-23 TO FY 2024-25 against various Projects grouped under the following major Schemes, viz.,

- 1) AIIB
- 2) ADB
- 3) NERPSIP
- 4) Annual Plan/SOPD
- 5) PSDF
- 6) TDF
- 7) Deposit work
- 8) AIFA
- 9) AIIMS
- 10) Direct Assets

6.1.2 Scheme-Wise projects, year-wise capital expenditure and capitalization, mode of funding, and requirement of the project, as submitted by AEGCL are discussed in the following Sections, along with the Commission's analysis and approval.

6.1.3 **Asian Infrastructure Investment Bank (AIIB) Scheme**

6.1.4 AEGCL has proposed that 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. 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

Table 34: Details of Projects to be executed under AIIB Scheme

SI No	Description of work	Name of the TKC/ Supplier	Date of Award	Scheduled date of completion	Status as on 11.10.2021
1	Construction of 220/33kV, 2X100 MVA GIS at two locations (Bihpuria & Jakhalabandha) and associated Transmission Lines (Package A)	M/s NECCON Power & Infra Limited	15.02.2021	3 years from the contract effective period GoA has released Rs 50 Crore against Central Share requirement. Mobilization advances to be released shortly for making the contract effective.	Contract signed on 26.07.2021 Detail survey of transmission line and Drawing checking under process
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	3 years from the contract effective period GoA has released Rs 50 Crore against Central Share requirement. Mobilization advances to be released shortly for making the contract effective.	Contract signed on 28.07.2021 Drawing checking under process
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	3 years from the contract effective period GoA has released Rs 50 Crore against Central Share requirement. Mobilization advances to be released shortly for making the contract effective.	Contract signed on 30-07-2021. Drawings checking in process.

SI No	Description of work	Name of the TKC/ Supplier	Date of Award	Scheduled date of completion	Status as on 11.10.2021
4	Construction of 220/132kV, 2X160 MVA; 132/33kV, 2X50 MVA GIS at location (Khumtai) and its associated lines and bay extension (Package-D)	-	Yet to be awarded	3 years from the contract effective period	NOIA to be issued shortly on receipt of Board's approval
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.	Yet to be awarded	3 years from the contract effective period	NOA issued on 04.10.2021. Letter of acceptance received from M/S GODREJ & BOYCE MFG. Co. Ltd., Mumbai. Contract to be signed shortly.
6	Construction of 132/33kV GIS Scheme Conversion from AIS at location (Gohpur) (Package-F)	-	Yet to be awarded	3 years from the contract effective period	Tender document is in final stage
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	3 years from the contract effective period	Preliminary Route survey by M/s P.K. Dutta in process. Contract for preparation of master plan awarded to M/s N. Arc Consultancy

SI No	Description of work	Name of the TKC/ Supplier	Date of Award	Scheduled date of completion	Status as on 11.10.2021
8	Construction of 400/220kV, 2X500 MVA GIS at Sonapur GIS and its associated lines and bay extension (Package-H)	–	Yet to be awarded	3 years from the contract effective period	Preliminary Route survey by M/s P.K. Dutta in process. Contract for preparation of master plan awarded to M/s N. Arc Consultancy
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	2 years from the contract effective period GoA has released Rs 50 Crore against Central Share requirement. Mobilization advances to be released shortly for making the contract effective.	Contract signed on 06.09.2021
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	2 years from the contract effective period GoA has released Rs 50 Crore against Central Share requirement. Mobilization advances to be released shortly for making the contract effective.	Contract agreement signed on 19.07.2021 Drawing checking in process.
11	Augmentation of Transformer	M/s SIDDHAR	18.02.2021	2 years from the contract effective	Contract agreement

SI No	Description of work	Name of the TKC/ Supplier	Date of Award	Scheduled date of completion	Status as on 11.10.2021
	Capacity at Moran, Dibrugarh, Depota, Golaghat & Sankardevnagar sub stations in Assam (Package K)	THA ENGINEERING LIMITED		period GoA has released Rs 50 Crore against Central Share requirement. Mobilization advances to be released shortly for making the contract effective.	signed on 30.09.2021. Drawing checking in process.
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	2 years from the contract effective period	Contract signed on 23.07.2021 and is effective on 14.08.2021 as per the negotiation meeting dtd. 24.06.2021 Dispatch clearance issued. Materials inspection is in process.
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	2 years from the contract effective period	Contract signed on 30.10.2021
14	Procurement of Enterprise Resource Planning (ERP) (Package N)	Yet to be awarded	Yet to be awarded	4 years 3 months from the contract effective period including Annual Maintenance Service period	Technical Evaluation in process.

SI No	Description of work	Name of the TKC/ Supplier	Date of Award	Scheduled date of completion	Status as on 11.10.2021
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	5 years from the contract effective period	PMC is in service

Table 35: Summary of Capital Expenditure of AIIB Projects for FY 2022-23 to FY 2024-25 (Rs. Crore)

Sr	Particulars	Projected Capital Expenditure		
		FY 2022-23	FY 2023-24	FY 2024-25
1	Construction of 220/33kV, 2X100MVA GIS at Bihpuria and associated lines-Pkg A	47.07	58.32	65.90
2	Construction of 220/33kV, 2X100MVA GIS at Jakhalabandha and associated lines-Pkg A	7.47	17.44	21.91
3	Construction of 220/33kV, 2X100MVA GIS at Nagaon-2 and associated lines-Pkg-B	20.74	26.19	29.04
4	Construction of 220/33kV, 2X100MVA GIS at Chyagaon and associated lines-Pkg-B	9.57	20.43	26.80
5	Construction of 132/33kV, 2X50 MVA GIS at location (Burhigaon) and its associated lines-Pkg-C	8.94	18.95	26.68
6	Construction of 220/132kV, 2X160 MVA; 132/33kV, 2X50 MVA GIS at location (Khumtai) and its associated lines and bay extension-Pkg-D	37.64	87.83	108.46
7	Construction of 220/132kV, 2X160 MVA GIS at Sankardevnagar and its associated lines-Pkg-E	22.61	40.50	76.61
8	Construction of 220/132kV, 2X160 MVA GIS at Agamoni and its associated lines-Pkg-E	13.65	31.86	38.52

Sr	Particulars	Projected Capital Expenditure		
		FY 2022-23	FY 2023-24	FY 2024-25
9	Construction of 132/33kV GIS Scheme Conversion from AIS at location (Gohpur)-Pkg-F	12.59	29.38	41.970
10	Construction of 400/220kV, 2X500 MVA GIS; 220/132kV 1X160 MVA GIS; 132/33kV, 2X50 MVA AIS (Kumarikata) and its associated lines and bay extension, Pkg-G	13.73	32.03	45.76
11	Construction of 400/220kV, 2X500 MVA GIS; 220/132kV 1X160 MVA GIS; 132/33kV, 2X50 MVA AIS (Rangia) and its associated lines and bay extension, Pkg-G	68.34	159.45	227.79
12	Construction of 400/220kV, 2X500 MVA GIS at location (Sonapur) and its associated lines and bay extension-Pkg-H	64.13	149.63	213.76
13	Augmentation of Transformation Capacity at five substations (Narengi, Kahilipara, Rangia, Kukumara& Boko)-Pkg-I	28.29	42.85	0.00
14	Augmentation of Transformation Capacity at four substations (Barnagar, Panchgram, Agia&Gauripur)-PkG-J	8.14	41.95	0.00
15	Augmentation of Transformation Capacity at five substations (Dibrugarh, Depota, Golaghat, Sankardevnagar & Moran) Pkg-K	8.25	42.90	0.00
16	Augmentation of Transmission Line Capacity 132kV BTPS (Salakati)-Dhaligaon) D/C (Panther Equivalent)	12.00	10.12	0.00
17	Augmentation of Transmission Line Capacity 132kV Gossaigaon-Gauripur S/C (Panther Equivalent)	13.00	16.24	0.00
18	Augmentation of Transmission Line Capacity 220kV Kukumara-Sarusajai D/C (Zebra Equivalent)	20.00	20.98	0.00
19	Augmentation of the communication backbone - Replacement of existing ground wire by OPGW (615 kM)	20.00	28.58	-
20	Project Management Concultant (PMC) services	7.00	12	12

Sr	Particulars	Projected Capital Expenditure		
		FY 2022-23	FY 2023-24	FY 2024-25
21	220/33kV, 2X100 MVA Boragaon GIS with Associated Line	10.19	35.65	56.02
22	132/33kV, 2X50 MVA Lumding GIS with Associated Line	9.91	34.70	54.52
23	132/33kV, 2X50 MVA Morigaon AIS with Associated Line	6.40	22.39	35.18
24	132/33kV, 2X50 MVA Amayapur AIS with Associated Line	6.74	23.59	37.07
25	132/33kV, 2X50 MVA Ghungur (Udarband) GIS with Associated Line	5.36	18.78	29.51
26	132/33kV, 2X50 MVA Chabua GIS with Associated Line	5.57	19.50	30.64
27	132/33kV, 2X50 MVA Dhing AIS with Associated Line	6.40	22.41	35.22
28	132/33kV, 2X50 MVA Dhupdhara AIS with Associated Line	6.74	23.59	37.07
29	132/33kV, 2X50 MVA Titabor GIS with Associated Line	8.56	29.95	47.07
30	132/33kV, 2X50 MVA Serfanguri AIS with Associated Line	6.26	21.90	34.42
31	220/132kV, 2X160 MVA Rowta GIS with Associated Line	19.82	69.37	109.01
32	220/33kV, 2X100 MVA Panjabari GIS with Associated Line	8.71	30.50	47.92
33	132/33kV, 2X50 MVA Agamoni AIS with Associated Line	6.50	22.73	35.72
34	132/33kV, 2X50 MVA Zoo Road GIS with Associated Line	14.56	50.96	80.08
	Total	564.88	1313.63	1604.65

Table 36: Funding of AIIB Projects as Proposed by AEGCL (Rs. Crore)

Sr. No.	Capital Expenditure	Funding Pattern	FY 2022-23	FY 2023-24	FY 2024-25
A	Counterpart Funding (GoA)	20%	112.98	262.73	320.93
	Remaining Part	80%	451.90	1050.90	1283.72
B	Grant (AIIB)	72%	406.71	945.81	1155.35
C	Debt (AIIB)	8%	45.19	105.09	128.37
	Total		564.88	1313.63	1604.65

Sr. No.	Capitalisation	Funding Pattern	FY 2022-23	FY 2023-24	FY 2024-25
A	Counterpart Funding (GoA)	20%	-	-	79.16
	<i>Remaining Part</i>	80%	-	-	316.64
B	Grant (AIIB)	72%	-	-	284.98
C	Debt (AIIB)	8%	-	-	31.66
	Total		0.00	0.00	395.80

6.1.5 **Asian Development Bank (ADB)**

6.1.6 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.

Table 37: Present Status of Works of ADB Projects

Sl. No	Project Name	Status	Start Date of Project	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	Mar-22	Forest Clearance is in progress

Table 38: Summary of Capital Expenditure and Capitalisation for FY 2022-23 to FY 2024-25

Sr. No.	Particulars (Rs. in Crs.)	Projected Capital Expenditure	Projected Capitalisation
		FY 2022-23	FY 2022-23
1	132 kV DC Chandrapur-Sonapur and 132 kV DC Sonapur-Jagiroad (Baghjaap) Transmission Line	-	29.37

Table 39: Funding of ADB Projects (Rs. Crore)

Sr. No.	Capitalisation	Funding Pattern (%)	FY 2022-23
A	Counterpart Funding (GoA)	20%	5.87
B	Remaining Part	80%	23.50
	Grant (ADB)	72%	21.15
	Debt (ADB)	8%	2.35
C	Total		29.37

6.1.7 **Power System Development Fund (PSDF)**

6.1.8 AEGCL submitted that 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 and transformation projects of 2019-20. The grid disturbance on 30th and 31st July 2012 in most areas of India forced the Ministry of 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. 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. R&U project is 98% and R&U-BCU project is 85% completed under PSDF.

Table 40: Summary of PSDF Projects and Capitalisation as projected by AEGCL (Rs. Crore)

Sr	Particulars	Projected Capital Expenditure	Projected Capitalisation
		FY 2022-23	FY 2022-23
A	R&U	19.17	30.91
B	R&U-BCU	3.05	11.96
	Total	22.22	42.87

Table 41: Funding of PSDF Projects as projected by AEGCL (Rs. Crore)

Sr	Capital Expenditure	Funding Pattern	FY 2022-23
A	Gol – PSDF (Grant)	100%	22.22
	Total		22.22

Sr	Capitalisation	Funding Pattern	FY 2022-23
A	Gol – PSDF (Grant)	100%	42.87
	Total		42.87

6.1.9 **Trade Development Fund (TDF)**

6.1.10 AEGCL has proposed the following works under TDF:

a) Construction of 132/33 kV Barpeta substation with 132 kV S/C Barnagar – Barpeta line on D/C Tower

- i) 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.
- ii) To boost the quality of power, AEGCL has proposed the construction of 132/33 kV Barpeta substation with 132 kV S/C line on D/C tower from Barnagar. 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 and will reduce transmission loss. The project is expected to be commissioned in FY 2022-23.

b) Construction of 132/33 kV Hatsingimari substation with 132 kV S/C Agia-Hatsingimari line on D/C Tower

- i) 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 prolonged load shedding everyday especially in peak hours because Meghalaya feeds power to this 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.
- ii) Therefore, to meet the regular demand of power in the respective areas, AEGCL has 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.

iii) 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 shedding substantially. The project is expected to be commissioned in FY 2022-23.

c) 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 system's instability of power feeding to the distribution network of concerned areas covering entire Chirang, Bongaigaon, Abhyapuri and Chapar area in particular.

Table 42: Status of Ongoing TDF 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	April, 2022	Due to fund constraint progress has slowed down. Fund issue has been taken up with GoA and is likely to be resolved soon.
2	132 kV S/C line on D/C tower from Agia to Hatsingimari	Around 90 % of work completed Total (Nos): 387 Stub Cons (Nos): 386 Erected (Nos): 365 Stringing: 71.14/108 km	Oct, 2014	Apr, 2016	April, 2022	Due to fund constraint progress has slowed down. ROW and Forest Clearance from Govt of Meghalaya

Sl. No.	Project Name	Status	Start Date of Project	Original Date of Completion	Target Date of Completion	Reasons for delay in start/completion
3	133 kV LILO to Barpeta from Dhaligaon Barnagar line	Around 90% of work completed Total (Nos): 96 Stub Cons (Nos): 93 Erected (Nos): 84 Stringing: 14.721	April, 2016	Apr, 2018	Mar, 2022	Due to fund constraint progress has slowed down. Fund issue has been taken up with GoA and is likely to be resolved soon. Stringing works between loc 9 and 10 could not be completed due to Court case.
4	132 /33 kV Barpeta GSS	The substation is completed and back charged on May 2021 from a 33 kV line of APDCL	Feb, 2016	Feb, 2018	Mar, 2022	Substation is yet to be put in use as the associated Transmission line is under progress and expected to be commissioned by Mar 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

Sl. No.	Project Name	Status	Start Date of Project	Original Date of Completion	Target Date of Completion	Reasons for delay in start/completion
						slowed down. Fund issue has been taken up with GoA and is likely to be resolved soon.

Table 43: Summary of TDF Projects and Capitalisation as projected by AEGCL (Rs. Crore)

Sl. No.	Particulars	Projected Capital Expenditure	Projected Capitalisation	
		FY 2022-23	FY 2022-23	FY 2023-24
1	Hatsingimari GSS	2.44	23.16	-
2	Barpeta substation, 132/33 kV, 2x25 MVA	-	23.88	-
	S/S Total	2.44	47.03	0.00
1	Construction of 132 kV S/C line on D/C tower from Salakati to APM	4.13	-	30.85
2	Construction of 132 kV LILO from Dhaligaon Barnagar line	-	22.85	-
3	Construction of 132 kV S/C line on D/C tower from Agia to Hatsingimari (Package A & B)	4.55	67.69	-
	Trans. Lines Total	8.68	90.54	30.85
	Total (S/S and Trans. Line)	11.11	137.58	30.85

Table 44: Funding of TDF Projects (Rs. Crore)

Sr. No.	Capital Expenditure	Funding Pattern	FY 2022-23
A	GoA- Grant	100%	11.11
	Total		11.11

Sr. No.	Capitalisation	Funding Pattern	FY 2022-23	FY 2023-24
A	GoA- Grant	100%	137.58	30.85
	Total		137.58	30.85

6.2 NERPSIP

6.2.1 GOI sanctioned the “North Eastern Region Power System Improvement Project” (NERPSIP) on 1st December, 2014 for six North Eastern Region States (Assam, Meghalaya, Manipur, Tripura, Nagaland and Mizoram) for strengthening of Intra-State Transmission and Distribution System. The Scheme is implemented as Central Sector Scheme through POWERGRID 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 funds and 50% by GoI through MoP budget.

6.2.2 In the scope of NERPSIP-Assam, the following are being done by POWERGRID:

- a) Eleven (11) nos. of new EHV Sub stations of which three (3) will be GIS and rest will be AIS.
- b) Bay extension of Six (6) nos. of Substations at Dhemaji, Sonabil, Tinsukia, Rupai, Kahilipara and Kamakhya.
- c) Augmentation of two (2) existing sub stations at Samaguri and Dhaligaon.
- d) The scheme also involves Turnkey Tower Package at various locations.
- e) Approximately 740 km of OPGW including existing and new Transmission lines (216 km).
- f) Capacity Building and Institutional Strengthening of Assam electricity transmission and distribution scenario has been taken up.

Table 45: Summary of NERPSIP Projects and Capitalisation as projected by AEGCL (Rs. Crore)

Sr. No.	Package Name	Projected Capitalisation		
		FY 2022-23	FY 2023-24	FY 2024-25
1	ASM-SS-01	-	66.25	-
2	ASM-SS-02	-	86.17	-
3	ASM-SS-03	-	-	46.12
4	ASM-SS-04	-	-	217.17

Sr. No.	Package Name	Projected Capitalisation		
		FY 2022-23	FY 2023-24	FY 2024-25
5	Tr-01	-	99.21	-
6	ASM P01	28.5	-	-
7	TW02	-	38.07	-
8	TW04	-	20.69	-
9	TW05	13.06	-	-
10	TW-07	-	0.75	65.14
11	ASM OPGW01	-	-	8.23
	Total	42.31	310.39	337.06

AEGCL has submitted that the ongoing projects were commenced in the previous/current years and thus, the capital expenditure has been incurred directly by GOI/World Bank. Hence, capital expenditure is not reflected in the account of AEGCL. However, the projects once capitalised, shall reflect as capitalisation in accounts of AEGCL as the ownership of the assets shall lie with AEGCL and the project elements shall be taken over by AEGCL for operation and maintenance on their own at their own cost.

Table 46: Funding of NERPSIP Projects

Particulars	Funding Pattern	FY 2022-23	FY 2023-24	FY 2024-25
Capital Expenditure				
Gol- Grant	50%	-	-	-
World Bank- Grant	50%	-	-	-
Total		-	-	-
Capitalisation				
Gol- Grant	50%	21.16	155.2	168.5
World Bank- Grant	50%	21.16	155.2	168.5
Total		42.31	310.39	337.06

6.3 Assam Infrastructure Funding Authority (AIFA)

6.3.1 The proposal for construction of 132/33 kV, 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 dated 11th October, 2019. The 132/33 kV Nathkuchi substation will help to address the load demand at Pathsala, Bhabanipur, Harupather, Nathkuchi, Khudra Bhaluki, Boorman and Mushalpur as there is a trend of increase in domestic,

commercial and industrial loads. The project will further lead to:

- i. Increase in power transformation capacity and improvement in voltage profile of the grid system as well as power distribution network in and around Pathsala.
- ii. Minimization of overloading condition of Nalbari and Barnagar Grid sub-stations. About 14 MW of Nalbari substation and 15 MW of Barnagar load can be diverted to Nathkuchi new substation, which will ease the overloading conditions of these substations.
- iii. This new substation will ease severe load shedding scenario around the area.
- iv. Increase in revenue through additional installed capacity.
- v. Enhanced power reliability and better customer service.
- vi. Turnkey construction has been split into two parts, considering the nature of works, as follows:
 - a) 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 March 2022.
 - b) Supply and Erection of HTLS Conductors along with all accessories from 132 kV Rangia Substation to Nathkuchi Substation on turnkey basis.

Table 47: Summary of Capital Expenditure and Capitalisation as projected by AEGCL (Rs. Crore)

Sr. No.	Particulars	Projected Capital Expenditure	Projected Capitalisation
		FY 2022-23	FY 2022-23
1	Turnkey Construction of 2x50 MVA, 132/33 kV Nathkuchi Substation with associated Transmission Line (LILO of 132 kV Transmission Line from Rangia GSS to Barnagar GSS at Nathkuchi)	37.68	68.84
	Total	37.68	68.84

Table 48: Funding of Projects as projected by AEGCL (Rs. Crore)

Sr. No.	FY 2022-23	Funding Pattern	Capital Expenditure	Capitalisation
A	GoA- Grant	100%	37.68	68.84
	Total		37.68	68.84

6.4 AIIMS

6.4.1 In order to supply power to the upcoming AIIMS at Changsari, Guwahati, AEGCL is undertaking the construction 1X25 MVA, 132/33 kV substation at AIIMS campus along with associated transmission line.

6.4.2 The HEALTH & FAMILY WELFARE DEPTT., GOVT OF ASSAM has approved the project and issued Administrative Approval vide letter no. AA/DME_2019-20(I)_309 dated 19th July, 2019 for Rs. 4198.74 Lakh.

Table 49: Summary of AIIMS Capital Expenditure and Capitalisation (Rs. Crore)

Sr. No.	Particulars	Projected Capital Expenditure	
		FY 2022-23	FY 2023-24
1	1x25 MVA, 132/33 kV AIIMS GSS, Changsari along with associated Line	20.00	6.96
	Total	20.00	6.96

Sr. No.	Particulars	Projected Capitalisation	
		FY 2022-23	FY 2023-24
1	1x25 MVA, 132/33 kV AIIMS GSS, Changsari along with associated Line	-	41.98
	Total	-	41.98

Table 50: Funding of AIIMS Projects (Rs. Crore)

Sr. No.	Capital Expenditure	Funding Pattern	FY 2022-23	FY 2023-24
A	GoA- Grant	100%	20.0	6.96
	Total		20.0	6.96

Sr. No.	Capitalisation	Funding Pattern	FY 2022-23	FY 2023-24
A	GoA- Grant	100%	-	41.98
	Total		-	41.98

6.5 State Owned Priority Development (SOPD-G)

6.5.1 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, which will in turn help to enhance commercial and trade activity on the north bank of Upper Assam, hence, improving the socio-economic situation of the people in the affected districts.

Table 51: Summary of SOPD-G Capital Expenditure and Capitalisation

Sr.	Particulars	Projected Capital Expenditure	
		FY 2022-23	FY 2023-24
1	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)	2.00	10.00
	Total	2.00	10.00

Sr.	Particulars	Projected Capitalisation	
		FY 2022-23	FY 2023-24
1	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)	-	49.17
	Total	-	49.17

Table 52: Funding of SOPD-G Projects

Sr.	Capital Expenditure	Funding Pattern	FY 2022-23	FY 2023-24
A	GoA- Grant	100%	2.00	10.00
	Total		2.00	10.00

Sr.	Capital Expenditure	Funding Pattern	FY 2022-23	FY 2023-24
A	GoA- Grant	100%	0.00	49.17
	Total		0.00	49.17

6.6 Deposit Works

6.6.1 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.

Table 53: Summary of NRL Deposit Works Capital Expenditure and Capitalisation (Rs. Crore)

Sr	Particulars	Projected Capital Expenditure	Projected Capitalisation
		FY 2022-23	FY 2022-23
1	Construction of 220kV LILO to NRL substation from Smaguri-Mariani-2	11.32	21.19
	Total	11.32	21.19

6.6.2 Deposit Scheme funded by Railways

Railways are executing electrification of railway network in Assam at a rapid pace through RVNL, RITES, IRCON, NF Constructions and CORE. Projects are being executed with a vision to reduce dependency on imported fossil fuel-based petroleum products. This will enable Railways to use greener power and reduce its carbon footprint. As a part of this ambitious project, AEGCL has been entrusted with construction of several 132 kV transmission lines to the Railway Traction substation and terminal line bays at AEGCL end.

Table 54: Summary of Railways Deposit Scheme Capital Expenditure and Capitalisation

A) Deposit Scheme funded by NFCON (Rs. Crore)

Sr.	Particulars	Projected Capital Expenditure		
		FY 2022-23	FY 2023-24	FY 2024-25
1	Construction of 132 kV Bay at Rowta GSS	2.32	-	-
2	Construction of 132 kV Bay at Sonabil GSS	3.12	-	-
3	Construction of 132 kV Bay at Nalkata GSS	2.08	-	-

Sr.	Particulars	Projected Capital Expenditure		
		FY 2022-23	FY 2023-24	FY 2024-25
4	Construction of 132 kV Bay at Dhemaji GSS	2.21	-	-
5	Construction of 132 kV Bay at Jorhat West GSS	1.33	-	-
6	Construction of 132 kV S/C TL from Sonabil GSS to Balipara TSS	-	-	9.17
7	Construction of 132 kV S/C TL from Rowta GSS to Udalguri TSS	-	-	8.32
8	Construction of 132 kV S/C TL from Gohpur GSS to Gohpur TSS	-	-	9.36
9	Construction of 132 kV S/C TL from Nalkata GSS to North lakhimpur TSS	-	-	7.60
10	Construction of 132 kV S/C TL from Dhemaji GSS to Dhemaji TSS	-	-	5.16
11	Construction of 132 kV S/C TL from Silapathar GSS to Laimekuri TSS	-	-	24.06
12	Construction of 132 kV S/C TL from Jorhat west GSS to Barua Bamungaon TSS	-	-	9.87
	Total	11.06	0.00	73.54

Sr.	Particulars	Projected Capitalisation		
		FY 2022-23	FY 2023-24	FY 2024-25
1	Construction of 132 kV Bay at Rowta GSS	2.32	-	-
2	Construction of 132 kV Bay at Sonabil GSS	3.12	-	-
3	Construction of 132 kV Bay at Nalkata GSS	2.08	-	-
4	Construction of 132 kV Bay at Dhemaji GSS	2.21	-	-
5	Construction of 132 kV Bay at Jorhat West GSS	1.33	-	-
6	Construction of 132 kV S/C TL from Sonabil GSS to Balipara TSS	-	-	9.17
7	Construction of 132 kV S/C TL from Rowta GSS to Udalguri TSS	-	-	8.32
8	Construction of 132 kV S/C TL from Gohpur GSS to Gohpur TSS	-	-	9.36

Sr.	Particulars	Projected Capitalisation		
		FY 2022-23	FY 2023-24	FY 2024-25
9	Construction of 132 kV S/C TL from Nalkata GSS to North lakhimpur TSS	-	-	7.60
10	Construction of 132 kV S/C TL from Dhemaji GSS to Dhemaji TSS	-	-	5.16
11	Construction of 132 kV S/C TL from Silapathar GSS to Laimekuri TSS	-	-	24.06
12	Construction of 132 kV S/C TL from Jorhat west GSS to Barua Bamungaon TSS	-	-	9.87
	Total	11.06	0.00	73.54

B) Deposit Scheme funded by CORE (Rs. Crore)

Sr.	Particulars	Projected Capital Expenditure		
		FY 2022-23	FY 2023-24	FY 2024-25
1	Construction of 132 kV Bay at Agai 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 Shankardevnagar GSS	1.43	-	-
5	Construction of 132 kV Bay at Haflong GSS	1.33	-	-
6	Construction of 132 kV Bay at Pailapool GSS	1.51	-	-
7	Construction of 132 kV TL from Agia GSS to Goalpara TSS	-	-	10.49
8	Construction of 132 kV TL from Boko GSS to Boko TSS	-	-	3.58
9	Construction of 132 kV TL from Baghjab GSS to Dharamtul TSS	-	-	11.27
10	Construction of 132 kV TL from Shankardevnagar GSS to Lanka TSS	-	-	10.91
11	Construction of 132 kV TL from Nagaon GSS to Bebejia TSS	-	-	5.62
12	Construction of 132 kV TL from Haflong GSS to Haflong TSS	-	-	10.13

Sr.	Particulars	Projected Capital Expenditure		
		FY 2022-23	FY 2023-24	FY 2024-25
13	Construction of 132 kV TL from Karimganj GSS to Baraigram TSS	-	-	14.41
14	Construction of 132 kV TL from Pailapool GSS to Sribar TSS	-	-	6.66
15	Construction of 132 kV TL from Panchgram GSS to Panchgram TSS	-	-	4.72
	Total	8.56	0.00	77.81

Sr.	Particulars	Projected Capitalisation		
		FY 2022-23	FY 2023-24	FY 2024-25
1	Construction of 132 kV Bay at Agai 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 Shankardevnagar GSS	1.43	-	-
5	Construction of 132 kV Bay at Haflong GSS	1.33	-	-
6	Construction of 132 kV Bay at Pailapool GSS	1.51	-	-
7	Construction of 132 kV TL from Agia GSS to Goalpara TSS	-	-	10.49
8	Construction of 132 kV TL from Boko GSS to Boko TSS	-	-	3.58
9	Construction 132 kV TL from Baghjab GSS to Dharamtul TSS	-	-	11.27
10	Construction of 132 kV TL from Shankardevnagar GSS to Lanka TSS	-	-	10.91
11	Construction of 132 kV TL from Nagaon GSS to Bebejia TSS	-	-	5.62
12	Construction of 132 kV TL from Haflong GSS to Haflong TSS	-	-	10.13
13	Construction of 132 kV TL from Karimganj GSS to Baraigram TSS	-	-	14.41
14	Construction of 132 kV TL from Pailapool GSS to Sribar TSS	-	-	6.66

Sr.	Particulars	Projected Capitalisation		
		FY 2022-23	FY 2023-24	FY 2024-25
15	Construction of 132 kV TL from Panchgram GSS to Panchgram TSS	-	-	4.72
	Total	8.56	0.00	77.81

Table 55: Funding of Deposit works (Rs. Crore)

Sr.	Capital Expenditure	Funding Pattern (%)	FY 2022-23	FY 2023-24	FY 2024-25
A	Railways – Deposit Works	100%	30.94	0.0	151.36
	Total		30.94	0.0	151.36

Sr.	Capitalisation	Funding Pattern (%)	FY 2022-23	FY 2023-24	FY 2024-25
A	Railways – Deposit Works	100%	40.81	0.0	151.36
	Total		40.81	0.0	151.36

6.7 Projects funded through Internal Accrual/Equity

AEGCL submits that it proposes to undertake the following capital expenditure amounting to Rs. 4.96 Cr. through its own internal resources, i.e., Internal Accruals or retained earnings generated from the cash.

1. 220 kV Bay construction at Balipara end (PGCIL)

The second circuit of the 220 kV 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 220 kV Samaguri GSS, as well as all related downstream networks, will be more reliable and secure.

2. Construction of 2 Nos. 132 kV Bay at Gohpur for LILO of Biswanath Charialli (POWERGRID) – Itanagar 132kV D/c line

This transmission system work is carried out through TBCB process for the NER System Strengthening Scheme-II (Part-B) and Scheme-V (NER-II B & V). AEGCL will supply two 132 kV bays at the 132 kV Gohpur Substation as part of the project's scope. The two bays at Gohpur GSS are being built for the LILO of Biswanath Charialli

(PGCIL) - Itanagar 132 kV D/c line. This would improve the system's security and reliability at Gohpur and other substations like as North Lakhimpur, Majuli, and Dhemaji.

As per the standard accounting policies, Retained Earnings/Internal Accruals are classified as Equity and accordingly, any investment from the same shall be treated as Equity Investment. Hence, the aforementioned capital expenditure shall be treated as 100% equity contribution.

Table 56: Summary of Capital Expenditure and Capitalisation (Rs. Crore)

Sr.	Particulars	Projected Capital Expenditure	Projected Capitalisation
		FY 2022-23	FY 2022-23
1	Turnkey Construction of 220 kV Bay at Balipara Substation of Power Grid for termination of 2nd Circuit of 220 kV Balipara Sonabil -II	1.28	2.28
2	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	1.49	2.69
	Total	2.76	4.96

Table 57: Funding of Equity Funded Project (Rs. Crore)

Sr.	FY 2022-23	Funding Pattern	Capital Expenditure	Capitalisation
A	Equity	100%	2.76	4.96

6.8 Direct Assets of AEGCL

1. 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, which would necessitate a large expenditure.

Table 58: Summary of Direct Assets Capital Expenditure and Capitalisation (Rs. Crore)

Sr.	Capital Expenditure	FY 2022-23	FY 2023-24	FY 2024-25
A	Provision for Furniture	2.50	2.50	2.50

Sr.	Capitalisation	FY 2022-23	FY 2023-24	FY 2024-25
A	Provision for Furniture	2.50	2.50	2.50

Table 59: Funding of Direct Assets (Rs. Crore)

Sr.	Capital Expenditure	Funding Pattern	FY 2022-23	FY 2023-24	FY 2024-25
A	Equity	100%	2.50	2.50	2.50

Sr.	Capitalisation	Funding Pattern	FY 2022-23	FY 2023-24	FY 2024-25
A	Equity	100%	2.50	2.50	2.50

2. Provision for Office Equipment

There is a requirement for the acquisition of office equipment for essential requirements. These include printers, office supplies, and firefighting equipment that have been on hold for a long time.

Table 60: Summary of Office Equipment Capital Expenditure and Capitalisation (Rs. Crore)

Sr.	Capital Expenditure	FY 2022-23	FY 2023-24	FY 2024-25
A	Provision for Office Equipment	1.50	1.50	1.50

Sr.	Capitalisation	FY 2022-23	FY 2023-24	FY 2024-25
A	Provision for Office Equipment	1.50	1.50	1.50

Table 61: Funding of Direct Assets (Rs. Crore)

Sr.	Capital Expenditure	Funding Pattern	FY 2022-23	FY 2023-24	FY 2024-25
A	Equity	100%	1.50	1.50	1.50

Sr	Capitalisation	Funding Pattern	FY 2022-23	FY 2023-24	FY 2024-25
A	Equity	100%	1.50	1.50	1.50

6.9 Summary of Capital Expenditure and Capitalization

6.9.1 The summary of scheme-wise Capital Expenditure and Capitalization projected by AEGCL for the Control Period is summarized in the Tables below:

Table 62: Summary of Capital Expenditure and Capitalisation projected by AEGCL for Control Period (Rs. Crore)

Scheme Name	FY 2022-23	FY 2023-24	FY 2024-25
Capital Expenditure			
AIIB	564.88	1313.63	1604.65
ADB	-	-	-
NERPSIP	-	-	-
Annual Plan	2.00	10.00	-
PSDF	22.22	-	-
TDF	11.11	-	-
Deposit Works	30.94	-	151.36
AIFA	37.68	-	-
AIIMS	20.00	6.96	-
Internal Accrual Equity	2.76	-	-
O&M/Assets	4.00	4.00	4.00
TOTAL AEGCL	695.59	1334.59	1760.01
Capitalisation			
AIIB	-	-	395.80
ADB	29.37	-	-
NERPSIP	42.31	310.39	337.06
Annual Plan	-	49.17	-
PSDF	42.87	-	-
TDF	137.58	30.85	-
Deposit Works	40.81	-	151.36
AIFA	68.84	-	-
AIIMS	-	41.98	-
Internal Accrual Equity	4.96	-	-
O&M/Assets	4.00	4.00	4.00
TOTAL AEGCL	370.74	436.39	888.22

6.10 Capital Investment Plan approved by the Commission for FY 2022-23 to FY 2024-25

6.10.1 The Commission has analysed the details of different Schemes proposed by AEGCL

for the Control Period from FY 2022-23 to FY 2024-25, and observes as under:

- a) Some of the Schemes proposed by AEGCL are ongoing Schemes / Spillover Schemes Like ADB, PSDF, TDF, etc.;
- b) Most of the Schemes are Central Government Schemes, viz., NERPSIP, PSDF, TDF, and NEC, or State Government Schemes, viz., State Annual Plan;
- c) Majority of the above Schemes are intended to strengthen the transmission network, facilitate evacuation of power, improvement of the quality of supply, etc.;
- d) Most of the Schemes are either 100% Grant funded or 90% Grant funded, and only some of the Schemes are 50% grant funded and the funds have been tied-up for all the ongoing Schemes;
- e) The AIIB Scheme is the largest Scheme, with huge expenditure envisaged in next 5 years. The Commission notes that majority of the Schemes work have already started and work order has been awarded to a number of projects.
- f) Many of the Scheme like NERPSIP, AIFA, TDF have claimed excess capitalisation. The Commission is of the opinion that AEGCL must remain vigilant in projecting its Capitalisation based on which MYT Tariff Order would be decided.
- g) According to the Capital Investment Plan proposed by AEGCL, most of the Capital Expenditure incurred have been shown in the Accounts of the GOI/World Bank. AEGCL has submitted that these assets would be capitalised in the books of AEGCL. The Commission directs AEGCL to ensure that the capitalisation is done at zero cost, as they are funded by grants from GoI/World Bank only after commissioning of the assets.
- h) The Commission also notes that some projects are not directly related to improvement of the transmission system but provide necessary support to transmission system infrastructure, such as assets like furniture and other Office Equipment. The Commission is of the opinion that only prudent expenditure should be incurred on this and directs AEGCL to specially take care so that duplication of such assets does not take place.

6.10.2 In view of the above, the Commission provisionally approves the Scheme-wise Capital Investment Plan as proposed by AEGCL, and summarised in the Table below:

Table 63: Capital Investment Plan provisionally approved by the Commission for the Control Period for AEGCL (Rs. Crore)

Scheme Name	FY 2022-23	FY 2023-24	FY 2024-25	Total
Capital Expenditure				
AIIB	564.88	1313.63	1604.65	3483.16
ADB	-	-	-	-
NERPSIP	-	-	-	-
Annual Plan/SOPD	2.00	10.00	-	12.00
PSDF	22.22	-	-	22.22
TDF	11.11	-		11.11
Deposit work	30.94	-	151.36	182.30
AIFA	37.68	-		37.68
AIIMS	20.00	6.96	-	26.96
Internal Accrual Equity	2.76	-	-	2.76
Sub-total Projects	691.59	1330.59	1756.01	3778.19
Direct Works	4.00	4.00	4.00	12.00
TOTAL AEGCL	695.59	1334.59	1760.01	3790.19

6.10.3 **AEGCL is directed to maintain database on the individual Projects under each Scheme with the following details:**

- a) **Details/Scope of Project including activities, area covered, etc.;**
- b) **Start date of Project;**
- c) **Scheduled completion date of Project;**
- d) **Funding Plan;**
- e) **Cost-Benefit-Analysis of the Project (if the Asset is expected to lower Transmission Loss, recording of previous Transmission Loss and Actual Transmission Loss after commissioning)**
- f) **Present Status of Project, indicating physical progress in percentage terms and in monetary terms;**
- g) **Status of Capitalisation as per Field Reports and as per Accounts in a compiled manner, i.e., individual project-wise and Scheme-wise Capitalisation and Energisation Report, which would include the certificate of Electrical Inspector for asset being put to use, along with the comparison of project-wise and Scheme-wise approved capital cost;**
- h) **Whether the intended benefits of the Project have been achieved, etc.**

6.10.4 Maintenance of such project-wise database will help AEGCL track the progress of the

Project during execution as well as ensure that the Capitalisation as per Accounts tallies with the asset being physically put to use. AEGCL should submit such Project-wise data to the Commission at the time of true-up for each Year, for the Projects that have been capitalised during that Year. AEGCL should also justify the Projects proposed to be capitalised in the ensuing Year based on the above database.

6.11 Capitalisation approved by the Commission for FY 2022-23 to FY 2024-25

6.11.1 During the TVS, the Commission asked AEGCL to submit the latest status of implementation of projects/schemes, approvals received, funds arranged, orders placed, work commencement, timelines committed by contractor, etc. However, AEGCL has not been able to substantiate the significantly high Capital Expenditure and Capitalisation projected for the Control Period based on latest status.

6.11.2 It is also noted that typically, the actual capital expenditure and capitalisation are both significantly lower than that originally proposed by AEGCL in its respective Business Plan/Tariff Petitions. This shows that AEGCL has been generally projecting much higher capital expenditure and capitalisation than that actually achieved/achievable, which needs to be borne in mind, while approving the capitalisation for the Control Period from FY 2022-23 to FY 2024-25.

6.11.3 The comparison of proposed vs. approved vs. actual capitalisation over the period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 64: Actual Capital Expenditure and Capitalisation achieved by AEGCL from FY 2016-17 to FY 2020-21 (Rs. Crore)

Particulars	FY17	FY18	FY19	FY 20	FY 21
Capitalisation					
Proposed by AEGCL in Business Plan/ Tariff Petition	388.47	307.50	135.09	844.73	521.07
Approved in respective Tariff Order	82.36	303.79	140.67	140.00	140.00
Actual	84.09	55.93	291.10	420.48	169.61

6.11.4 From the above Table, it is seen that the average Capitalisation achieved over last 5-year period is Rs. 204.24 Crore and last 3-year period is Rs. 293.73 Crore, with the

maximum capitalisation of Rs. 420.48 Crore being achieved in FY 2019-20, and a minimum capitalisation of Rs. 55.93 crore.

6.11.5 The Commission observes that there appears to be a disconnect in the Accounting of the capital expenditure and capitalisation, as many times, the asset may be physically completed and electrically charged, but due to some minor accounting related issues, the asset is unable to be capitalised in the Accounts of AEGCL. As a result, the tariff recovery for such assets is delayed, even though the asset is functional and has been put to use for the benefit of the consumers.

6.11.6 AEGCL should seriously investigate this matter and initiate measures to complete the capitalisation as per accounts at the earliest, for schemes that have commenced quite some time ago. If this is done, the amount of CWIP is likely to reduce significantly and the amount of GFA shall increase correspondingly.

6.11.7 Against the above background, the capital expenditure proposed by AEGCL for each year of the Control Period at Rs. 695.59 Crore, Rs. 1330.59 Crore, and Rs. 1756.01 Crore, and proposed Capitalisation of Rs. 370.74 Crore, Rs. 436.39 Crore, and Rs. 888.22 Crore appear unrealistic.

6.11.8 The Commission has hence, approved Capitalisation for the Control Period, for the purpose of approval of ARR and Transmission Tariff, based on information regarding latest status of works and past trends of capital expenditure of AEGCL.

6.11.9 The Commission has considered the Capitalisation for the period from FY 2022-23 to FY 2024-25 based on average capitalisation of last five years and last three years. AEGCL has projected increasing trend of capitalisation over the Control Period. Accordingly, the Commission has considered annual Capitalisation of Rs. 200 Crore, Rs. 250 Crore and Rs. 300 Crore for FY 2022-23, FY 2023-24 and FY 2024-25, respectively, for the purpose of determination of ARR and Transmission Tariff, as shown in the Table below:

Table 65: Capitalisation approved by the Commission for the Control Period (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Capitalisation	200.00	250.00	300.00

6.11.10 The Commission clarifies that the approach adopted by the Commission does not bar AEGCL from implementing the schemes as approved in the Capital Investment Plan for the Control Period from FY 2022-23 to FY 2024-25. In case AEGCL achieves higher Capitalisation, the same may be submitted at the time of truing up for the

respective year.

6.11.11 The Commission has considered the funding of capitalisation in the same ratio as proposed by AEGCL, i.e., Grant funding has been considered as 95%, 88%, and 87% of the assets added in FY 2022-23, FY 2023-24, and FY 2024-25, respectively. For a few Schemes, AEGCL has considered 100% equity contribution. However, the normative debt:equity ratio specified in the MYT Regulations, 2021 is 70:30. Hence, the balance asset value has been considered to be largely funded by loans, with equity contribution limited to lower of proposed equity contribution and 30% normative equity allowed as per the MYT Regulations, 2021.

6.11.12 The funding of capitalisation approved by the Commission is shown in the following Table:

Table 66: Funding of Capitalisation approved by the Commission for the Control Period (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Grant/Consumer Contribution	190.73	219.54	261.22
Equity	2.78	2.29	1.35
Debt	6.49	28.17	37.43
Total Capitalisation	200.00	250.00	300.00

Therefore, the Commission approves Capitalisation of Rs. 200 Crore, Rs. 250 Crore and Rs. 300 Crore for FY 2022-23, FY 2023-24 and FY 2024-25, respectively.

AEGCL is directed to submit the necessary details as identified in para 6.10.3 above for all ongoing projects at the time of true-up and Tariff for ensuing year/s. Further, for all Projects that have not commenced by March 31, 2023 AEGCL shall obtain the Commission's prior approval based on the necessary detail as identified in para 6.10.3, even if in-principle approval has been received.

7 ARR for AEGCL for the MYT Control Period from FY 2022-23 to 2024-25

7.1 Introduction

7.1.1 This Chapter deals with the approval of ARR of AEGCL for the MYT Control Period from FY 2022-23 to 2024-25 in accordance with the provisions of MYT Regulations, 2021.

7.2 Transmission Loss

7.2.1 AEGCL has projected the Transmission Loss for FY 2022-23 to 2024-25, as detailed in the Table below:

Table 67: Transmission Losses Projected by AEGCL for FY 2022-23 to 2024-25 (MU)

Sl.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Energy Injected	10875.39	11092.90	11314.76
2	Energy Sent Out to APDCL	10097.92	10299.88	10505.88
3	Energy Sent Out to OA Consumers	418.58	426.95	435.49
4	Total Energy Sent Out	10516.50	10726.83	10941.36
4	Transmission Loss	358.90	366.07	373.39
5	Transmission Loss (%)	3.30%	3.30%	3.30%

Commission's Analysis

7.2.2 The Commission in the MYT Order dated March 1, 2019, had approved the Transmission Loss trajectory after considering reduction of 0.05% each year. AEGCL has planned several Capital Investment Projects towards system strengthening and loss reduction, etc., which have been approved by the Commission. Hence, the Commission while approving the Transmission Loss trajectory for the Control Period from FY 2022-23 to FY2024-25, has approved annual Transmission Loss reduction trajectory of 0.02%, over the Transmission Loss level approved for FY 2021-22 in the Tariff Order dated February 15, 2021.

7.2.3 Accordingly, the Commission has approved the following Transmission Loss trajectory:

Table 68: Transmission Losses Approved for FY 2022-23 to 2024-25

Sl.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Transmission Loss	3.27%	3.25%	3.23%

7.3 Transmission Availability

7.3.1 AEGCL has projected the Transmission Availability of 99.50% for the Control Period from FY 2022-23 to FY 2024-25.

Commission's Analysis

7.3.2 The MYT Regulations, 2021 specifies the Normative Transmission Availability of 98% for full recovery of transmission charges and 98.5% for incentive consideration. Also, the computation and payment of Transmission Charges has been linked to monthly Transmission Availability computed as per the MYT Regulations, 2021.

7.3.3 The Commission notes that AEGCL has projected the trajectory of Transmission Availability higher than Normative Transmission Availability as specified in MYT Regulations, 2021. The computation of incentive/disincentive on account of Transmission Availability shall be undertaken at the time of truing up for each year of the Control Period in line with the MYT Regulations, 2021.

7.4 Operation and Maintenance Expenses

7.4.1 AEGCL submitted that O&M expenses for FY 2022-23 to FY 2024-25 have been computed on the basis of revised estimates for FY 2021-22 and consist of following heads:

- a) Employee expenses;
- b) R&M expenses;
- c) A&G expenses;

The claim of AEGCL under various heads of O&M expenses are discussed below:

7.4.2 Inflation Indices

7.4.3 AEGCL submitted that WPI for immediately preceding three years gives the WPI Inflation for the Base Year. Since, the WPI data is currently available till FY 2020-21, the Inflation factor could be computed till FY 2021-22. Hence, the resulting WPI Inflation is considered for computational purpose throughout the Control Period. Hence, the resulting average WPI of 2.41% has been considered for projecting the

O&M expenses for the Control Period.

- 7.4.4 AEGCL submitted that the average increase in the CPI for immediately preceding three years gives the CPI Inflation for Base Year. Since, the CPI data is currently available till FY 2020-21, the Inflation factor could be computed till FY 2021-22. Hence, the resulting CPI Inflation is considered for computational purpose throughout the Control Period. Hence, the resulting average CPI of 6.00% has been considered for projecting the O&M expenses for the Control Period.

Employee Expenses

- 7.4.5 AEGCL submitted that the employee cost of FY 2021-22 as estimated in the APR for FY 2021-22 has been considered as the Base employee cost for projecting the employee expenses for the Control Period.
- 7.4.6 AEGCL has completed the process of most of recruitment to fill the vacant positions during FY 2020-21. However, AEGCL has projected more recruitment to be carried out in the upcoming years based on the projection of asset addition and recruitment of senior management during the year. Hence, AEGCL shall be incurring additional cost on account of the recruitment of manpower. The manpower has been computed based on the assumption on no inter-Company transfer to and from AEGCL among the common cadre officers. The recruitment calculation for the Control Period is based on the projected requirement the ensuing years. AEGCL submitted that by considering G_n factor of minimum 1% into cognizance, the projected employee expenses shall be credible in reflecting the employee cost of AEGCL for the Control Period.
- 7.4.7 AEGCL has accordingly projected the normative employee expenses for the Control Period as Rs. 199.38 crore, Rs. 213.46 crore, and Rs. 228.52 crore for FY 2022-23, FY 2023-24, and FY 2024-25, respectively.

R&M Expenses

- 7.4.8 AEGCL submitted that R&M expenses are directly related to the number of substations and lines, age of the assets, and their wear and tear during the period. R&M expenses are generally incurred in order to ensure the maintenance of the transmission lines/systems.

Provision for Colony Maintenance of AEGCL

- 7.4.9 The residential premises of most of the AEGCL Colonies are in need of immediate renovation. Many such residential quarters were built in the early 60's and these buildings require immediate renovation. The interior colony roads, water supply

schemes, control room buildings, cable trenches, drainage systems, etc., in many colonies are in dilapidated condition.

7.4.10 Unless the repair and renovation works are taken up on urgency basis, this infrastructure shall further deteriorate, and it will be difficult to derive any service from this asset. Gradual deterioration of these infrastructure leads to the obvious consequence for more and more deployment of monetary resources.

7.4.11 For a prolonged period in the past, no major repair and renovation works could be taken up by erstwhile ASEB/AEGCL due to serious financial crunch. Whatever little work was carried out was not commensurate with volume of renovation needed for these assets.

7.4.12 A comprehensive analysis of the requirement towards the renovation of these infrastructure indicates a tentative requirement of Rs 36 Crore. The crux of the problem is that the required amount far exceeds the normative R&M expenses computed by AEGCL. On the other end, these works do not fall under the category to merit sanction of grant from Govt/other Agencies as fund from such agencies are received only for new projects. Unless a separate coffer is available through approval by the Commission, it shall become more and more difficult for AEGCL to undertake repair and renovation of civil assets.

Emergency Restoration System (ERS)

7.4.13 Emergency Restoration System (ERS) structures are temporary arrangements to bypass the existing transmission towers. These towers are used until the main line is reconducted or restored. The ERS is an essential component required for maintenance of transmission line and for new projects where long shutdown of an existing line is required but cannot be afforded.

7.4.14 AEGCL is presently having 5737 ckm of transmission lines in its network. The transmission lines run through fields, forests, hills, and valleys. Since, the command area of AEGCL consisting of large nos. of rivers, it is often seen that towers far away from river course come within the river course within a few years of time, threatening the tower. In such scenarios and in extreme cases of tower collapse, during erection of new towers, ERS is very much essential so that construction can be completed without prolonged shutdown of the line.

7.4.15 Also, AEGCL is executing large nos. of projects for shifting/height raising of existing transmission lines due to construction of new infrastructure by Railways and Highway Authority. During erection of towers, ERS is used to minimize the downtime of

transmission lines.

- 7.4.16 At present AEGCL have 8(eight) Nos. of ERS towers, which are located at Mariani (4 nos. towers) and Kahilipara (4 nos. towers). These towers are of Lindsey, USA make and were procured in 2008. During the past 10-12 years, these ERS were extensively and successfully used. It may be noted that generally more than one (sometimes 3 to 4 towers) are required for restoration/bypassing the transmission line. Moreover, due to wear and tear of the ERS tools/spares, all the towers cannot be used simultaneously. Therefore, usually only two locations can be served with the existing ERS.
- 7.4.17 For the last 5/6 years, AEGCL has been facing acute shortage of ERS on account of which on many occasions power supply could not be restored on time during the period of exigency arising out of tower collapse/ shutdown of transmission line. However, due to non-availability of the requisite funds, AEGCL could not procure the required number of ERS towers.
- 7.4.18 In view of the above, it is felt necessary to add more ERS towers to AEGCL inventory so that more ERS are in usable condition and can be deployed simultaneously if the need arises.
- 7.4.19 Therefore, in view of the above, AEGCL requests the Hon'ble Commission to approve the proposed R&M expenses included provision for colony maintenance of AEGCL and ERS for FY 2022-23 to FY 2024-25 without any disallowance.
- 7.4.20 AEGCL has accordingly projected the normative R&M expenses for the Control Period as Rs. 43.43 crore, Rs. 41.50 crore, and Rs. 45.63 crore for FY 2022-23 to FY 2024-25, respectively.

A&G Expenses

- 7.4.21 AEGCL submitted that the upcoming Control Period shall witness additional A&G expenses. AEGCL submitted that considering the current and futuristic development plans and expansionary situation of AEGCL, the A&G expenses are expected to increase manifold in ensuing years due to various proposed activities outlined below. The asset base of AEGCL is expected to increase manifold in next 3 years with the increase in transmission lines and establishment of many substations as compared to current situation.
- 7.4.22 With the projected expansion of network, servicing new areas and offices to cater to the new areas, Investment in upgradation of technology various components of A&G expenses such as insurance, technical fees, Licence and Registration fees, vehicle

expenses, electricity and water charges to office and various other incidental and miscellaneous expenses shall increase accordingly.

7.4.23 AEGCL has accordingly projected the normative A&G expenses for the Control Period as Rs. 10.45 crore, Rs. 10.70 crore, and Rs. 10.96 crore FY 2022-23 to FY 2024-25, respectively.

Expenses towards Training and Capacity Building

7.4.24 AEGCL submitted that rigorous training at different Transmission Companies is carried out at regular intervals, which is effective and necessary for the employees. Technical training on “Cyber Security for Power Systems”, “Operation, Maintenance and Testing for Transformer”, “Energy Efficiency in Electrical Utilities”, “Power System Protection”, etc. are being carried out by TICI (Mumbai), PSTI (Bangalore), AIPM (CESC-Kolkata), ASCI (Hyderabad), RECIPMT (Hyderabad) and others. The training on different aspects of regulatory affairs and current Regulations of CERC/SERC are being provided by NTPC.

7.4.25 AEGCL firmly believes that training is a major tool in reducing the number of workplace related issues, therefore, training such as “Asset Management in Power Sector”, “Leadership Programme in Power Business” by AIPM (CESC-Kolkata) and “Managerial Leadership and Team Effectiveness” by IIM Calcutta are essential for Human Resource and Senior Management people in order to maintain the effectiveness of the workplace. Also, training on “Operation & Maintenance of Distribution Transformers and Leading to Zero Breakdowns” by ESCI (Hyderabad) is required for enhancement of financial skills related to new technologies for finance and accounts employees.

7.4.26 AEGCL estimated the cost of Training and Capacity Building under a separate head in the Petition and requested the Commission to approve the projected cost of Rs. 1.04 crore to be incurred on training / awareness and capacity building from FY 2022-23 to FY 2024-25.

Commission’s Analysis

7.4.27 The Commission has computed the O&M Expenses for the Control Period on normative basis as per MYT Regulations, 2021. Any variation between normative O&M expenses and actual O&M Expenses shall be considered under sharing of gains and loss on account of controllable items as per MYT Regulations, 2021 at the time of truing up for respective year.

7.4.28 For computation of employee expenses for Control Period, the Commission has

adopted the following approach:

- a) The average of actual employee expenses for the period from FY 2016-17 to FY 2020-21 has been escalated by applicable CPI inflation factor for FY 2019-20, FY 2020-21 and FY 2021-22, to derive the base expense for FY 2021-22, which works out to Rs. 173 Crore;
- b) CPI inflation has been computed for FY 2021-22 based on available data, which works out to 5.53%;
- c) Considering the projected expansion of transmission network and projected increase in number of employees over the Control Period, growth factor of 1% has been considered.

7.4.29 The normative employee expenses approved for the Control Period are shown in the following Table:

Table 69: Approved Employee Expenses for Control Period (Rs. Crore)

Particulars	Legend	FY 2022-23	FY 2023-24	FY 2024-25
Actual Employee Expenses for the previous year	EMP _{n-1}	173.00	184.39	196.54
CPI Inflation	CPI	5.53%	5.53%	5.53%
Growth factor	G _n	1.00%	1.00%	1.00%
Normative Employee Expenses		184.39	196.54	209.48

7.4.30 For computation of R&M Expenses for the Control Period, the Commission has considered the following approach:

- a) WPI inflation has been computed for FY 2021-22 based on available data, which works out to 4.13%;
- b) K-factor governs the relationship between R&M expenses and Gross Fixed Assets. The Commission has analysed the relationship between approved R&M expenses and Gross Fixed Assets for the period from FY 2018-19 to FY 2020-21. It is to be noted that K-factor cannot be computed based on anticipated expenditure, as proposed by AEGCL. The K-factor for the Control Period has been considered as average of K-factor computed for FY 2018-19 to FY 2020-21, as shown in the following Table:

Table 70: Computation of K-factor for Control Period (Rs. Crore)

Sr. No.	Particulars	FY 2018-19	FY 2019-20	FY 2020-21
1	R&M Expenses	11.01	17.14	14.33
2	Opening GFA	1,628.68	1,681.83	1968.05
3	Closing GFA	1,681.83	1972.92	2388.31
4	Average GFA	1655.26	1827.38	2,178.18
5	k-Factor	0.67%	0.94%	0.66%
6	K-Factor for Control Period	0.75%		

- c) Since, K-factor has been computed on the basis of average GFA, for projection of R&M expenses for the Control Period, average GFA for previous years has been considered;
- d) On the Issue of Provision for Colony Maintenance and ERS, the Commission has not delved into the prudence of the provisioning proposed by the Utility. The Commission is of the opinion that AEGCL should consider executing these projects based on Open Competitive Bidding so that the cost discovered could be justified. Also, the Commission is of the opinion that proposed procurement of 4 ERS towers would not be justifiable as AEGCL already has 8 such ERS in its possession. However, the Commission recognises the need for new ERS towers for AEGCL and decides to approve procurement of two (2) ERS. The Commission for the purpose of ARR and Tariff has hence, allowed 50% of the amount for colony maintenance and allowed cost for two (2) ERS towers;
- e) The Commission directs AEGCL to file a status report of both the projects with necessary detail so that prudence of the cost incurred by AEGCL could be assessed by the Commission (like proof of Competitive Bidding, Price discovered, Work Order or Purchase Order, etc.).

7.4.31 The normative R&M expenses approved for the Control Period are shown in the following Table:

Table 71: Approved R&M Expenses for Control Period (Rs. Crore)

Particulars	Legend	FY 2022-23	FY 2023-24	FY 2024-25
Opening GFA for previous year		2,557.77	2,708.47	2,908.47
Closing GFA for previous year		2,708.47	2,908.47	3,158.47
Average GFA for previous year	GFA_{n-1}	2,633.12	2,808.47	3,033.47
K Factor	K	0.75%	0.75%	0.75%
WPI Inflation	WPI	4.13%	4.13%	4.13%

Particulars	Legend	FY 2022-23	FY 2023-24	FY 2024-25
Normative R&M Expenses		20.66	22.04	23.81
Provision for Colony Maintenance of AEGCL		5.93	5.93	5.93
Provision for Emergency Restoration System (ERS) Towers		2.30		
Net Normative R&M Expenses		28.89	27.97	29.73

7.4.32 For computation of A&G expenses for the Control Period, the Commission has adopted the following approach:

- a) The average of actual A&G expenses for the period from FY 2016-17 to FY 2020-21 has been escalated by applicable WPI inflation factor for FY 2019-20, FY 2020-21 and FY 2021-22, to derive the base expense for FY 2021-22, which works out to Rs. 9.44 Crore;
- b) WPI inflation has been computed for FY 2021-22 based on available data, which works out to 4.13%.

7.4.33 The approved A&G expenses for the Control Period are shown in the following Table:

Table 72: Approved A&G Expenses for Control Period (Rs. Crore)

Particulars	Legend	FY 22-23	FY 23-24	FY 24-25
A&G Expenses for Previous Year	A&G _{n-1}	9.44	9.83	10.23
WPI Inflation	WPI	4.13%	4.13%	4.13%
Normative A&G Expenses		9.83	10.23	10.66

7.4.34 As regards Training expenses, the Commission is of the opinion that it should be part of Normative A&G Expenses. The Commission had allowed Training Expense separately in addition to normative A&G Expenses in the previous Control Period as an incentive to AEGCL to train its employees in modern technology so that their productivity increases. However, any incentive should not be extended indefinitely and the Commission has already allowed this special incentive to AEGCL for whole Control Period from FY 2019-20 to FY 2021-22.

7.4.35 Hence, the Commission has not approved any additional expense towards Training Expenses for FY 2022-23 to FY 2024-25.

7.4.36 The summary of normative O&M expenses approved by the Commission for the

Control Period from FY 2022-23 to FY 2024-25 is shown in the Table below:

Table 73: Approved O&M Expenses for Control Period (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expenses	184.39	196.54	209.48
R&M Expenses	28.89	27.97	29.73
A&G Expenses	9.83	10.23	10.66
Total O&M Expenses	223.11	234.74	249.87

7.5 Capitalisation

7.5.1 The Capital Investment Plan projected by AEGCL has been elaborated in the previous Chapter.

7.5.2 AEGCL submitted that the funding of Capital Expenditure is envisaged through Grants, Equity, and Loans, as per funding pattern of the respective Schemes, as shown in the following Table:

Table 74: Capital Expenditure and Capitalisation submitted by AEGCL (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Capital Expenditure	695.59	1334.59	1760.01
Capitalisation	370.74	436.39	888.22
Funding of Capitalisation			
Grant	353.55	383.22	773.39
Equity	8.96	4.00	4.00
Debt	8.22	49.17	110.82

Commission's Analysis

7.5.3 The Commission has approved the Scheme-wise Capital Expenditure and Capitalisation as elaborated in Chapter 6 of this Order.

7.5.4 Accordingly, the Commission has considered annual Capitalisation of Rs. 200 Crore, Rs. 250 Crore and Rs. 300 Crore for the purpose of determination of ARR and Transmission Tariff, as shown in the Table below:

Table 75: Capitalisation approved by the Commission for the Control Period (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Capitalisation	200.00	250.00	300.00

- 7.5.5 The Commission clarifies that the approach adopted by the Commission does not bar AEGCL from implementing the schemes as approved in the Capital Investment Plan for the Control Period from FY 2022-23 to FY 2024-25. In case AEGCL achieves higher Capital Expenditure and Capitalisation, the same may be submitted at the time of truing up for the respective year.
- 7.5.6 The Commission has considered the funding of capitalisation in the same ratio as proposed by AEGCL in case of Grant funding. Grant Funding has been considered as 95%, 88%, and 87% of the assets added in FY 2022-23, FY 2023-24, and FY 2024-25, respectively as has been proposed by AEGCL. The balance has been considered to be funded by loans and equity. The equity addition for the Year has been limited to 30% of balance funding requirement and rest of the funding has been considered from loans.
- 7.5.7 The funding of Capitalisation approved by the Commission for the Control Period is shown in the following Table:

Table 76: Funding of Capitalisation approved by the Commission for the Control Period (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Grant/Consumer Contribution	190.73	219.54	261.22
Equity	2.78	2.29	1.35
Debt	6.49	28.17	37.43
Total Capitalisation	200.00	250.00	300.00

7.6 Depreciation

- 7.6.1 AEGCL submitted that depreciation has been computed as per MYT Regulations, 2021 for the Control Period. Depreciation has been calculated taking into consideration the opening balance of assets for the respective year and the projected capitalization. The Closing Gross Fixed Assets for FY 2021-22 has been considered as the opening balance of assets for FY 2022-23. As specified in MYT Regulations, 2021, depreciation is calculated as per SLM considering depreciation to the extent of 90% of the Asset Value. The Depreciation of assets created through Grant has been reduced before arriving at Net depreciation.
- 7.6.2 AEGCL submitted that the GFA of SLDC has been segregated from AEGCL's GFA and is filed separately under SLDC's Tariff Petition for FY 2022-23 to FY 2024-25.

AEGCL claimed the depreciation of Rs. 59.39 Crore, Rs. 70.40 Crore, and Rs. 90.10 Crore for FY 2022-23 to FY 2024-25, respectively.

Commission's Analysis

7.6.3 For computation of depreciation, the Commission has considered the closing GFA for FY 2021-22 as approved in this Order, as the Opening GFA for FY 2022-23. The capitalisation approved for the respective years of the Control Period has been considered as asset addition during the year. The Commission has considered the scheduled depreciation rates as specified in MYT Regulations, 2021.

7.6.4 As per the MYT Regulations, 2021, the total depreciation during the life of the asset shall not exceed 90% of the original cost of GFA. The Commission has computed the depreciation separately for assets added under each asset head in each year. The Commission has disallowed the depreciation on assets where depreciation is in excess of 90% of the original cost of asset under different asset heads.

7.6.5 In view of the above, the Commission has approved depreciation for the period from FY 2022-23 to FY 2024-25 as per MYT Regulations, 2021, as given in the Tables below:

Table 77: Depreciation approved for FY 2022-23 (Rs. Crore)

Sl.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation Approved
1	Land & Rights	46.99	-		-
	Land under lease	-	-		-
2	Building	59.65	-	3.34%	1.43
3	Hydraulic	2.64	-	5.28%	-
4	Other Civil Works	131.78	15.37	3.34%	4.66
5	Plant & Machinery	1,296.99	88.32	5.28%	66.83
6	Lines & Cable Network	1,150.75	94.15	5.28%	42.13
7	Vehicles	4.96	-	9.50%	0.07
8	Furniture & Fixtures	9.58	1.35	6.33%	0.53
9	Office Equipment	5.13	0.81	6.33%	0.45
10	Grand Total	2,708.47	200.00	4.20%	116.11
11	Asset excluding Land	2,661.48	200.00		
12	Less: Depreciation for Grants/ Consumer Contribution				80.15
13	Net Depreciation				35.96

Table 78: Depreciation approved for FY 2023-24 (Rs. Crore)

Sl.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation Approved
1	Land & Rights	46.99	-		-
	Land under lease	-	-		-
2	Building	59.65	-	3.34%	1.43
3	Hydraulic	2.64	-	5.28%	-
4	Other Civil Works	147.16	-	3.34%	4.92
5	Plant & Machinery	1,385.31	196.37	5.28%	74.35
6	Lines & Cable Net work	1,244.90	51.34	5.28%	45.97
7	Vehicles	4.96	-	9.50%	0.07
8	Furniture& Fixtures	10.93	1.43	6.33%	0.62
9	Office Equipment	5.94	0.86	6.33%	0.34
10	Any other assets		-		
11	Grand Total	2,908.47	250.00	4.28%	127.85
12	Asset excluding Land	2,861.48	250.00		
13	Less: Depreciation for Grants/Consumer Contribution				90.39
14	Net Depreciation				37.46

Table 79: Depreciation approved for FY 2024-25 (Rs. Crore)

Sl.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation Approved
1	Land & Rights	46.99	-		-
	Land under lease	-	-		-
2	Building	59.65	-	3.34%	1.43
3	Hydraulic	2.64	-	5.28%	-
4	Other Civil Works	147.16	89.06	3.34%	6.40
5	Plant & Machinery	1,581.68	133.68	5.28%	83.06
6	Lines & Cable Net work	1,296.24	75.90	5.28%	49.33
7	Vehicles	4.96	-	9.50%	0.06
8	Furniture& Fixtures	12.36	0.84	6.33%	0.69
9	Office Equipment	6.80	0.51	6.33%	0.38
10	Any other assets		-		

Sl.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation Approved
11	Grand Total	3,158.47	300.00	4.33%	141.51
12	Asset excluding Land	3,111.48	300.00		
13	Less: Depreciation for Grants/Consumer Contribution				102.04
14	Net Depreciation				39.47

7.7 Interest on Loan Capital

7.7.1 AEGCL has considered the closing net normative loan for FY 2021-22 as per its submissions, as the opening net normative loan for FY 2022-23. AEGCL submitted that the loan addition during FY 2022-23 to FY 2024-25 has been considered as per the Capital Investment funding plan. The normative repayment has been considered equal to the depreciation. The interest on the loans has been computed at 10.00% on the Govt. Loans, 10.50% on Govt. Loans taken from Financial Institutions (ADB) and 8% on General Provident Fund. The weighted average interest rate on the actual loan portfolio works out to 9.98% for each year of the Control Period.

7.7.2 Accordingly, AEGCL has projected the Interest and Finance Charges for FY 2022-23 to FY 2024-25 as Rs. 12.39 crore, Rs. 8.78 crore, and Rs. 8.65 crore, respectively.

Commission's Analysis

7.7.3 The Commission has considered the opening net normative loan as on April 1, 2022 as Rs 256.12 Crore, based on the closing net normative loan of FY 2021-22 and after segregating the loan for SLDC. The addition of loan has been considered equal to debt portion of capitalized works as approved by the Commission in this Order. The loan repayment has been considered equivalent to depreciation approved in this Order.

7.7.4 The weighted average rate of Interest of 10.08% applicable for FY 2021-22 has been considered for computing the normative interest for each year of the Control Period. The interest on loan capital as approved by the Commission for the Control Period is shown in the following Table:

Table 80: Approved Interest on Loan for the Control Period (Rs. Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Net Normative Opening Loan	255.97	226.51	217.22
Addition of normative loan during the year	6.49	28.17	37.43

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Normative Repayment during the year	35.96	37.46	39.47
Net Normative Closing Loan	226.51	217.22	215.18
Interest Rate	10.08%	10.08%	10.08%
Interest Expenses	24.31	22.35	21.78
Finance Charges	0.01	0.01	0.01
Total Interest and Finance Charges	24.32	22.36	21.79

7.8 Return on Equity

7.8.1 AEGCL submitted that 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. 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. Accordingly, AEGCL has projected the RoE as Rs. 14.10 crore, Rs. 14.97 crore, and Rs. 15.51 crore for FY 2022-23 to FY 2024-25, respectively.

Commission's Analysis

7.8.2 The Commission has approved the RoE in accordance with the MYT Regulations, 2021. The Commission has considered addition of equity during the Control Period from FY 2022-23 to FY 2024-25 as discussed earlier, and the approved RoE at 13.50% is shown in the Table below:

Table 81: Return on Equity approved by the Commission (Rs. Crore)

Sr. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Equity Capital	99.93	102.71	105.00
2	Equity addition during the year	2.78	2.29	1.35
3	Closing Equity	102.71	105.00	106.35
5	Rate of Return on equity	13.50%	13.50%	13.50%
6	Return on Equity	13.68	14.02	14.27

7.9 Interest on Working Capital

7.9.1 AEGCL submitted that the normative interest on working capital (IoWC) has been computed in accordance with the 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. Accordingly, AEGCL has projected the loWC as Rs. 13.83 crore, Rs. 14.52 crore, and Rs. 15.72 crore FY 2022-23 to FY 2024-25, respectively.

Commission's Analysis

7.9.2 The Commission has computed normative loWC in accordance with the MYT Regulations, 2021. The rate of Interest has been considered equal to State Bank of India MCLR (One Year Tenor) prevalent during last 6 months plus 300 basis points i.e., 10.00%. loWC approved by the Commission for the Control Period is shown in the following Table:

Table 82: loWC approved by the Commission for the Control Period (Rs. Crore)

Sr. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	O&M expenses for 1 month	18.59	19.56	20.82
2	Maintenance spares @ 15% of O&M Expenses	33.47	35.21	37.48
3	Receivables for two months	70.94	83.85	90.03
4	Total Working Capital	123.00	138.62	148.33
5	Rate of Interest	10.00%	10.00%	10.00%
6	Interest on Working Capital	12.30	13.86	14.83

7.10 Income Tax

7.10.1 AEGCL submitted that as per MYT Regulations, 2021, actual Income Tax paid shall be reimbursed to the Transmission Licensees, based on the documentary evidence submitted at the time of truing up of each year.

Commission's Analysis

7.10.2 The Commission has not considered any provision towards Income Tax. The actual Income Tax paid shall be considered based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to prudence check.

7.11 Other Debits

7.11.1 AEGCL submitted that other costs and bad debts had not been considered in the

estimated ARR and it may claim the same at the time of true-up of the respective FY.

Commission's Analysis

7.11.2 The Commission, at this stage, has not considered any other Debits. The Commission may take an appropriate view on AEGCL's claim, if any, at the time of trueing up for each year of the Control Period after prudence check.

7.12 BST for Pension Fund

7.12.1 AEGCL submitted that there were 11802 Pensioners and 7594 Family Pensioners, i.e., a total of 19396 Pensioners, as on 01.11.2021. The GoA, according to its commitment at (Para 6 (10) of First Transfer Scheme dated 10.12.2004) to facilitate the development of plan for meeting the terminal benefit obligation developed the plan for meeting these obligations as below:

- Interest over existing corpus,
- Electricity Duty (currently @ 5 % on aggregate energy charges and fixed charges),
- Special Charge on Bulk Supply Tariff (currently @15 paise per unit on energy injected to APDCL), and
- Budgetary Support from GoA to meet any Shortfall.

7.12.2 AEGCL submitted that according to the ASEB Pension Trust, the Assam Government has committed to bridging the deficit through budgetary support. However, ASEB Pension Trust would like to point out that from FY 2005-06 to FY 2020-21, the outflow on account of payment of terminal benefits was Rs. 5833.10 Cr., compared to a total inflow of Rs. 3162.52 Cr., resulting in a shortfall of Rs. 3520.25 Cr., including the cumulative General Provident Fund Liability of Rs. 849.67 Cr.

7.12.3 Since the sources of financing unfunded obligations remained insufficient, GOA provided financial support to the Pension Trust for the amount of Rs.1993.10 crore till the end of FY 2020-21, leaving a net shortfall of Rs.1527.15 crore. This deficit has arisen mostly because of the GoA's inconsistency in giving fiscal support to the Pension Trust year after year. AEGCL further submitted that the Commission's decision to reduce Special Charge on BST from 20 to 15 paise per unit through its Tariff Order dated 1st March 2019 reduced the inflow of Pension Trust to the tune of Rs. 47 Crore for FY 2019-20, negating the advantage of the modification of Electricity

Duty.

- 7.12.4 The Trust is incurring monthly deficit of approximately Rs. 30 Crore, which is managed through the following (i) Utilization of Pension contribution for future services; (ii) Settlement of GPF and LEB liability through Company Accounts; and (iii) Redemption from Corpus Fund.
- 7.12.5 AEGCL submitted that most of the utilities in many States have been collecting terminal liabilities such as pension and gratuity under employee expenses and the same are being collected through Tariff. CERC has allowed DVC to recover entire Pension & Gratuity (P&G) liability through tariff.
- 7.12.6 In many States, post unbundling of SEB's, the full amount liability of terminal benefit liability is loaded in tariff (such as Punjab, Himachal Pradesh, Rajasthan, Chhattisgarh etc.,) and in some States, the whole liability on account of past unfunded portion at the time of unbundling has been recognized in the books of successor Companies and bonds of matching amount have been issued to settle the liability (in the States of Andhra Pradesh, Haryana, West Bengal, Kerala, etc.), the interest and principal repayment of which is again loaded in the tariff.
- 7.12.7 AEGCL submitted that employee expenses, including pension, are standard and legitimate expenses that should not be denied. As the pensioners grow in number, it is AEGCL's responsibility to pay the terminal benefits of its employees. This will have an impact on future outflows of funds due to the sinking of corpus amount created in order to settle the shortfall of Rs. 1527 crore until FY 2020-21. AEGCL will face financial hardships as a result of the reduction in BST rate.
- 7.12.8 In view of the above, AEGCL submitted that 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 shown in the Table below:

Table 83: Special charges - BST for Control Period as projected by AEGCL (Rs. Crore)

Particulars	FY 22-23	FY 23-24	FY 24-25
Special Charges on Bulk Supply Tariff	201.96	206.00	210.12

Commission's Analysis

- 7.12.9 It is a fact that in most States, the P&G expenses are passed through entirely in tariff of the Transmission Licensee/respective entity, either directly as an expense or

through amortisation of Bonds issued for the purpose, wherein the principal repayment of the Bonds and the interest thereon are passed through in the tariff. The Bulk Supply Tariff (BST) was reduced from 20 paise/unit to 15 paise/unit in the MYT Order for FY 2019-20 to FY 2021-22, to compensate the increase in Electricity Duty.

7.12.10 The Commission is of the view that pension payment to the employees is a statutory obligation of the Companies. Based on the original funding sources identified by the GoA, the maximum BST allowable is 20 paise/unit. The Commission has decided to increase the BST from 15 paise/unit to 20 paise/unit on energy transmitted to APDCL for the Control Period from FY 2022-23 to FY 2024-25.

7.12.11 However, this increase from 15 paise/unit to 20 paise/unit will not be sufficient to make up for the shortfall in the Pension Trust. AEGCL should pursue with the GoA for release of sufficient funds to make up the shortfall in the Pension Trust, in accordance with the commitment of the GoA in this regard.

7.12.12 Accordingly, the Commission approves BST for Pension Fund at 20 Paise per unit on the energy transmitted to APDCL, as approved in MYT Order of APDCL, as shown in the following Table:

Table 84: BST for Pension Fund as approved by the Commission (Rs. Crore)

Particulars	FY 22-23	FY 23-24	FY 24-25
Energy transmitted to APDCL (MU)	10,719.08	11,587.48	12,539.35
BST for Pension Fund at 20 paise per unit	214.38	231.75	250.79

7.13 Non-Tariff Income

7.13.1 AEGCL has projected the Non-Tariff income for the Control Period as Rs. 52.95 crore for each year of the Control Period from FY 2022-23 to FY 2024-25. AEGCL submitted that the interest/dividend earned from North East Transmission Company Limited (NETCL) by AEGCL has not been considered under NTI, in accordance with the MYT Regulations, 2021. The GPF liability is payable to an employee only after completion of 25 years of qualifying services. The accumulation of GPF is utilised 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 2020-21 amounting

to Rs. 2.69 crore. Interest on GPF has been deducted from NTI.

Commission's Analysis

7.13.2 The Commission has considered the actual NTI in FY 2020-21 as the NTI for each year of the Control Period from FY 2022-23 to FY 2024-25.

7.13.3 The Commission notes that the said NTI comprises Dividend Income of other investment of AEGCL. Regulation 68.1 of MYT Regulations, 2021 specifies that,

“68.1 ...

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.

...”

Thus, for projection of NTI for the Control Period from FY 2022-23 to FY 2024-25, the Dividend Income earned by AEGCL in FY 2020-21 has not been considered.

7.13.4 The Commission approves the Non-Tariff Income of Rs. 54.01 Crore for each year of the Control Period from FY 2022-23 to FY 2024-25. The actual Non-Tariff income shall be considered at the time of truing up for each year of the Control Period, after prudence check.

7.14 Contribution to Contingency Reserves for FY 2022-23 to FY 2024-25

7.14.1 Regulation 67.9 of MYT Regulations, 2021 specifies regarding the contribution to contingency reserves. As is well known, 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. The contingency reserves for FY 2022-23 to FY 2024-25 shall help in reinstallation of flood demised assets/construction of new towers in place of collapsed towers.

7.14.2 AEGCL is not in a position to carry out such works through the budgeted amount earmarked for O&M works. The amount released by the Government for the repair of flood ravaged towers/ transmission line is also far short of the amount required for such construction works. An estimate based on the field reports, which indicates that there is a minimal requirement of Rs. 6.60 Cr. for the works mentioned above for each year i.e., Rs. 19.80 Crore from FY 2022-23 to FY 2024-25. Hence, the contingency reserve will suffice part of the expenditure and remaining shall be adjusted against R&M expenses. The contribution to Contingency Reserves claimed by AEGCL for the

Control Period is shown in the Table below:

Table 85: Contribution towards Contingency Reserves for FY 2022-23 to FY 2024-25 (Rs. Crore)

SI. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening GFA for Previous year	2558.00	2708.55	3079.29
2	% Factor	0.1%	0.1%	0.1%
3	Contingency Reserves (1*2)	2.56	2.71	3.08

Commission's Analysis

7.14.3 Regulation 67.9.1 specifies as under:

“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”

7.14.4 It is observed that AEGCL has computed the Contribution towards Contingency Reserves based on the Opening GFA of the previous year rather than the year under consideration. The Commission has approved the Contribution towards Contingency Reserves for FY 2022-23 to FY 2024-25, in accordance with the MYT Regulations, 2021 based on approved opening GFA of that year, as shown in the Table below:

Table 86: Approved Contribution towards Contingency Reserves for FY 2022-23 to FY 2024-25 (Rs. Crore)

S. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening GFA for the current year	2708.47	2908.47	3158.47
2	% Factor	0.1%	0.1%	0.1%
3	Contingency Reserves (1*2)	2.71	3.08	3.16

7.14.5 Thus, the Commission approves the Contribution towards Contingency Reserves of Rs. 2.71 Crore, Rs. 3.08 Crore and Rs. 3.16 Crore for the period from FY 2022-23 to FY 2024-25. The actual Contribution towards Contingency Reserves shall be considered at the time of true-up for each year of the Control Period, after prudence check.

7.15 Revenue from STOA/MTOA Charges

7.15.1 AEGCL submitted that the Income from open access consumers has been projected based on actuals of FY 2020-21 and six-month actuals of FY 2021-22. AEGCL has projected income from open access consumers as Rs. 12 crore for each year of the Control Period.

Commission's Analysis

7.15.2 In the previous Tariff Order, the Commission had taken a view that the Income from short-term Open Access/medium-term Open Access (STOA/MTOA) shall not be considered at the time of ARR and Tariff determination for any year, and shall be considered based on actuals at the time of true-up for that year. However, it has been observed that there is reasonable certainty regarding this income, and AEGCL has been earning approximately the same amount of Rs.12 crore every year.

7.15.3 In its Petition, AEGCL has considered this Income to reduce the ARR to that extent. Hence, the Commission has also considered this Income at this stage itself, in order to present a realistic picture of the ARR and Revenue. The Commission has considered this Income as Rs. 12 Crore for each year of the Control Period, as projected by AEGCL. The actual Income from STOA/MTOA shall be considered at the time of true-up for the respective year.

7.16 Summary of ARR for Control Period from FY 2022-23 to FY 2024-25

7.16.1 The summary of ARR as submitted by AEGCL and as approved by the Commission for the Control Period is given in the Table below:

Table 87: ARR for Control Period from FY 2022-23 to FY 2024-25 as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
		Proposed by AEGCL	Approved	Proposed by AEGCL	Approved	Proposed by AEGCL	Approved
1	O&M Expenses	253.61	223.11	265.99	234.74	285.48	249.87
a	Employee Cost	199.38	184.39	213.46	196.54	228.52	209.48
b	R&M Expenses	43.43	28.89	41.50	27.97	45.63	29.73
c	A&G Expenses	10.45	9.83	10.70	10.23	10.96	10.66
d	Training Expenses	0.35	0.00	0.34	0.00	0.36	0.00
2	Depreciation	59.39	35.96	70.40	37.46	92.10	39.47
3	Interest and Finance Charges	12.39	24.32	8.78	22.36	8.65	21.79
4	Interest on Working Capital	13.83	12.30	14.52	13.86	15.72	14.83
5	BST for Pension Trust Fund	201.96	214.38	206.00	231.75	210.12	250.79
6	Return on Equity	14.10	13.68	14.97	14.02	15.51	14.27
7	Income Tax	0.00	0.00	0.00	0.00	0.00	0.00
8	Other debits	0.00	0.00	0.00	0.00	0.00	0.00
9	Contribution to Contingency Reserve	2.56	2.71	2.71	2.91	3.08	3.16
10	Less: Non-Tariff Income/ Other Income	52.95	54.01	52.95	54.01	52.95	54.01
11	Aggregate Revenue Requirement	504.89	472.46	530.42	503.11	577.71	540.18
12	Revenue from STOA/MTOA Charges	12.00	12.00	12.00	12.00	12.00	12.00
13	Net Revenue Requirement	492.89	460.46	518.42	491.11	565.71	528.18

8 Transmission Tariff for FY 2022-23

8.1 Cumulative Revenue Gap/(Surplus) and Net ARR for recovery

8.1.1 AEGCL has computed the Revenue Surplus on account of True-up for FY 2020-21 along with the holding Cost as shown in the Table below. The Interest rate has been considered equal to the average State Bank of India MCLR (1-Year tenure) prevalent for the last available six months plus 300 basis points, i.e., 9.65% (6.65% plus 300 basis points) as per AERC (MYT Regulations) 2021.

Table 88: Cumulative Revenue Gap/(Surplus) (Rs. Crore)

Particulars	Amount
Revenue Surplus for FY 2020-21	(16.36)
Carrying cost on Revenue Surplus for FY 2020-21	(0.85)
Total Gap / (Surplus)	(17.20)

Commission's Analysis

8.1.2 For computation of cumulative Revenue Gap/(Surplus), the Commission has considered the Revenue Gap/(Surplus) after truing up of FY 2020-21 as approved in this Order along with Carrying/(Holding)Cost. No Revenue Gap/(Surplus) arising out of APR of FY 2021-22 has been proposed to be recovered through tariff in FY 2022-23, in accordance with the MYT Regulations, 2021. The Revenue Gap/(Surplus) computed by AEGCL and approved by the Commission in this Order is shown in the Table below:

Table 89: Revenue Gap/(Surplus) for FY 2020-21 approved for recovery/adjustment in FY 2022-23 (Rs. Crore)

Sr. No.	Particulars	Tariff Order	AEGCL	Approved in this Order
1	Net ARR	377.80	364.65	351.99
2	Revenue from Transmission Charges	377.80	381.00	377.99
3	Revenue Gap/(Surplus)	-	(16.36)	(26.27)
4	Carrying/(Holding) cost		(0.85)	(5.26)

8.1.3 The Commission has computed the Carrying/ (Holding) cost as shown in the following Table:

Table 90: Carrying/ (Holding) Cost for Revenue Gap/(Surplus) for FY 2020-21 approved by the Commission (Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
1	Opening Balance	-	(26.27)	(26.27)
2	Recovery /(Addition) during year	26.27	-	(26.27)
3	Closing balance	(26.27)	(26.27)	-
4	Rate of Interest (%)	10.05%	10.00%	10.00%
5	Carrying /(holding) Cost	(1.32)	(2.63)	(1.31)
	Total Holding Cost		(5.26)	

8.1.4 The Commission has considered the recovery of total Holding cost, i.e., Rs. 5.26 crore on Revenue Surplus for FY 2020-21. The Commission approves the cumulative Revenue Surplus of AEGCL as Rs 31.54 Crore. This Surplus is to be refunded to APDCL in twelve monthly equal instalments of Rs 2.63 Crore in FY 2022-23 as adjustment to the monthly bills.

8.2 Transmission tariff for FY 2022-23

8.2.1 AEGCL has proposed the Transmission Tariff for FY 2022-23 based on the cumulative Revenue Gap/(Surplus) after Truing up of FY 2020-21 and based on the projected ARR for FY 2022-23, as shown in the Table below:

Table 91: Transmission Tariff Proposed by AEGCL for FY 2022-23 (Rs. Crore)

Particulars	FY 22-23
Stand-alone Aggregate Revenue Requirement	492.89
Previous Revenue Gap / (Surplus) with carrying cost	(17.20)
Net Aggregate Revenue Requirement	475.68
Transmission Charge (Rs. / kWh)	0.452

Commission's Analysis

8.2.2 In accordance with MYT Regulations, 2021 the Commission has determined the Annual Transmission Charges and Transmission System Access Charges for FY 2022-23. The Annual Transmission Charges payable by APDCL and Transmission

system access charges payable by other users of AEGCL transmission system are arrived at based on Net ARR of AEGCL and the energy handled by the transmission system.

Annual Transmission Charges for APDCL

8.2.3 **The Annual Transmission Charges for FY 2022-23 shall be equal to Net ARR approved for recovery for FY 2022-23, i.e., Rs. 460.46 Crore.**

8.2.4 The Commission has determined the Annual Transmission Charges in terms of Rs./kW/ month and per unit charges. The Commission has considered the maximum Contracted capacity of 2332 MW as submitted by AEGCL and estimated energy supplied to APDCL and Open Access consumers as 10,668.70 MU as approved in Tariff Order of APDCL for FY 2022-23.

8.2.5 The Annual Transmission Charges shall be recovered on monthly basis as transmission charge from the users who shall share the Transmission Charge in proportion of the allotted transmission capacity.

8.2.6 AEGCL shall raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of Transmission System Availability Factor for the month computed as per MYT Regulations, 2021. The adjustments, if any, shall be made on the basis of the Transmission System Availability Factor to be certified by the SLDC within 30 days from the last day of the relevant month.

8.2.7 The approved Transmission System Access Charges works out to Rs. 0.37/kWh for FY 2022-23, as shown in the Table below:

Table 92: Transmission Access Charges approved by the Commission for FY 2022-23

Sr. No.	Particulars	FY 2022-23
1	Net ARR for Transmission (Rs Crore)	460.46
2	Energy transmitted to APDCL (MU)	10,668.70
3	Transmission Access Charges (Rs./kWh)	0.432
4	Transmission Charges for LTOA/ MTOA (Rs./MW/day)	5,409.66

**For short-term Open Access customers, the Transmission Charges shall be:
Rs. 0.432/kWh.**

Note:

1) The Commission has considered Annual Maximum Peak for FY 2022-23 as 2332 MW.

2) Any recovery on account of short-term/medium-term open access charges shall be considered as Non-Tariff Income.

8.3 Applicability of Tariff

8.3.1 The approved Transmission tariff for FY 2022-23 shall be effective from April 1, 2022 and shall continue until replaced/modified by Order of the Commission.

Sd/-	Sd/-	Sd/-
(S. N. Kalita)	(B Borthakur)	(K. S. Krishna)
Member, AERC	Member, AERC	Chairperson, AERC

9 Directives

The Commission has issued certain directives to AEGCL in the past Orders, with an objective of attaining operational efficiency and streamlining the flow of information, which would be beneficial to the sector and the Petitioner, both in the short-term and long-term.

As regards the directives issued by the Commission in the Tariff Order dated February 15, 2021, AEGCL has submitted the report to the Commission on compliance. The Commission has reviewed the compliance of directives submitted by AEGCL, and the status is as follows:

Status of compliance of directives in the Tariff Order dated February 15, 2021

Sl. No.	Directives	Reply of AEGCL
1	Directive 1: Energy Audit and Implementation of SAMAST	<ul style="list-style-type: none"> • The Energy Audit report for FY 2020-21 has been submitted to the Commission on 03.05.2021 and 23.07.2021. • AEGCL shall ensure that the implementation of SAMAST along with the installation of meters at all interconnecting points of each grid substation will be completed within proper timelines. • The comprehensive plan showing the status of existing meters for SAMAST and additional requirement has been submitted to the Commission on 23.07.2021.
2	Directive 2: Capacity Building of AEGCL	<ul style="list-style-type: none"> • AEGCL has submitted the report on manpower planning study to the Commission on 15.03.2021 and 23.07.2021. • AEGCL has submitted the training calendar for its employees for FY 2021-22, duly approved by its Board, on 21.04.2021 and 23.07.2021. • In order to facilitate preventive and scheduled maintenance of transmission substations and lines on time, AEGCL has prepared a report on training

Sl. No.	Directives	Reply of AEGCL
		for maintenance team and same has been submitted to the Commission on 23.07.2021.
3	Directive 3: Capacity Building of SLDC	<ul style="list-style-type: none"> • AEGCL has submitted the training calendar for its SLDC employees for FY 2021-22 to the Commission on 21.04.2021 and 23.07.2021.
4	Directive 4: Evacuation of Power through AEGCL network	<ul style="list-style-type: none"> • Evacuation of power from ISGS to DISCOM is normally not encouraged by CEA, however, for specific cases such arrangement is allowed. For example, 220 kV Kathalguri (Assam Gas Based Power Project) to Tinsukia (AEGCL) and Mariani (AEGCL) and 220kV double ckt BgTPP (NTPC Bongaigaon) to Salakati (AEGCL). • Considering the location of existing ISGS in Assam, no further direct connectivity with AEGCL appears feasible. However, a study report has been prepared and submitted on 21.10.2021.
5	Directive 5: Coordination Committee	<ul style="list-style-type: none"> • The Coordination Committee consisting of senior Officers from APGCL, AEGCL, SLDC and APDCL for settlement of matters of common interest relevant to generation, evacuation of power and supply to consumers has been constituted on 12.03.2021. The office order of the same has been submitted to the Commission on 15.03.2021. • The Coordination Committee meeting was held on 15.11.2021 at SLDC. The members have discussed the issue of power supply position, requirement of transformer and transmission line augmentation, etc., and the issue of 66 kV network and its future utilization plan.

New Directives:

The Commission hereby issues the following directives to AEGCL as under:

Directive 1 - Funding from Government of Assam for employer's contribution to Terminal Liabilities based on Actuarial valuation

AEGCL is directed to pursue regarding the funding from Government of Assam for employer's contribution to Terminal Liabilities based on actuarial valuation done.

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.

Directive 3 – Capacity Building

The Commission directs AEGCL to submit the Training Calendar to the Commission for FY 2022-23 latest by 30th April, 2022.

Directive 4 – Maintenance of Project-wise Database

AEGCL is directed to maintain database on the individual Projects under each Scheme with the following details and submit the following details for all ongoing projects at the time of true-up and Tariff for respective year. Further, for all Projects that have not commenced by March 31, 2022, AEGCL shall obtain the Commission's prior approval based on the necessary details as identified below, even if in-principle approval has been received:

- a) Details/Scope of Project including activities, area covered, etc.;
- b) Start date of Project;
- c) Scheduled completion date of Project;
- d) Funding Plan;
- e) Cost-Benefit-Analysis of the Project (if the Asset is expected to lower Transmission Loss, recording of previous Transmission Loss and Actual Transmission Loss after commissioning)
- f) Present Status of Project, indicating physical progress in percentage terms and in

- monetary terms;
- g) Status of Capitalisation as per Field Reports and as per Accounts in a compiled manner, i.e., individual project-wise and Scheme-wise Capitalisation and Energisation Report, which would include the certificate of Electrical Inspector for asset being put to use, along with the comparison of project-wise and Scheme-wise approved capital cost;
 - h) Whether the intended benefits of the Project have been achieved, etc.

Sd/-	Sd/-	Sd/-
(S. N. Kalita)	(B Borthakur)	(K. S. Krishna)
Member, AERC	Member, AERC	Chairperson, AERC

10 Annexure-1

10.1 Minutes of the 29th Meeting of the State Advisory Committee

Venue: AERC Conference Hall.

Day/Dated: Friday, 25th February 2022.

List Of Members/Special Invitees: At Annexure-1 (Enclosed)

The 29th Meeting of State Advisory Committee (SAC) was chaired by the Hon'ble Chairperson, AERC, Kumar Sanjay Krishna, IAS, (Retd.).

Shri S.N Kalita, Member (Technical) participated in the meeting through video conferencing.

At the onset, Hon'ble Chairperson, AERC welcomed all members and invitees. He informed the members that APGCL, AEGCL, and SLDC submitted tariff petitions for MYT Control Period FY2022-23 to 2024-25, True-Up for FY 2020-21, APR for FY 2021-22 and Tariff for FY 2022-23 on 30th November 2021, and APDCL submitted on 16th December 2021. The Commission after scrutiny of the petitions directed the petitioners to publish the petition for information of the public and for comments/suggestions vide order dated 23.12.2021 after the preliminary hearing. In response to the petitions, eight (8) nos of stakeholders submitted their views. The Commission has fixed 2nd March, 2022 for a public hearing. So, the Commission decided to place the tariff petition before the State Advisory Committee for valuable suggestions and guidance of the members. Hon'ble Chairperson requested the members to give constructive views and suggestions to enable Commission to complete tariff determination process within the timeline.

The welcome address was followed by an introductory session among the members and invitees. Thereafter, the agenda items were taken up for discussion in seriatim.

The important points raised by the members during the discussions are briefly recorded below.

Agenda: Confirmation of the Minutes of 28th meeting of SAC held on 23.09.2021

The draft minutes of the 28th meeting held on 23.09.2021 were circulated among the members. Few comments were received from the members that have been incorporated in the final minutes. The minutes were confirmed and accepted by the members.

Agenda: Presentation by APGCL

A PowerPoint presentation was made by MD, APGCL on the salient features of MYT petition submitted by APGCL. Important points of the discussion are noted below-

In true up for FY 2020-21, APGCL has shown a revenue gap of Rs. 25.86 Crore, Rs. 55.03 Crore for NTPS, KLHEP, and surplus of Rs. 13.59 Crore, Rs. 1.98 Crore for LTPS, LRPP. APGCL has a projected per unit cost of Rs. 3.87, Rs. 3.21, Rs. 4.84 and Rs. 2.07 for NTPS, LTPS, KLHEP, and LRPP respectively.

In AR for FY 2021-22, APGCL has projected per-unit cost of Rs. 4.4, Rs.4.34, Rs. 2.32 and Rs. 2.21 for NTPS, LTPS, KLHEP and LRPP respectively.

In ARR for FY 2022-23 to FY 2024-25, APGCL has proposed a tariff of Rs. 3.85, Rs. 3.79 and Rs. 3.74 respectively.

MD, APGCL highlighted that in True-Up, KLHEP 's gross generation is less than approved figures due to landslide. MD, APGCL also requested Commission to approve special R&M for LTPS, KLHEP amounting Rs. 5 Crore, Rs.8 Crore. Several projects are in pipeline for APGCL for e.g., Borpani stages 1& 2, Lower Kopili in Hydro. APGCL is also emphasizing in solar plant and are developing solar generation plants in Majuli and Namrup. MD, APGCL highlighted that these new plants will be beneficial for APDCL during power crisis situations like Oct coal crisis when in IEX prices shoot up. Chairman, APGCL mentioned that a comprehensive study is very important for resources in Assam which will help in the enhancement of Generation Capacity and Renewable Capacity addition.

Consumer activist Shri Subodh Sharma stated that there is a lack of co-ordination between APGCL and APDCL which leads to power evacuation and optimization. He also mentioned that real-time measurement of gas supply is not available with APGCL except at LTPS which should be incorporated to ensure Calorific value and other parameters for the Generating station. He also suggested to conduct co-ordination meetings between the three utilities which were also directed by the Hon'ble Commission.

Shri K. Medhi, Secretary, NESSIA requested APGCL to ensure timely completion of the Hydro and Solar projects with meticulous planning with the proper funding mechanism. MD, APGCL replied that budget provision is already made for the solar project and GoA has assured funding for Borpani stage 1&2. MD, APGCL also informed that Azure Power will complete the solar project in Silchar in March'22.

Shri M.B Devchoudhury suggested that a study may be carried out for LTPS 's high auxiliary consumption to which MD, APGCL replied that APGCL will carry out the same.

Member, Technical enquired about the funding to pay the Interest & Finance charges for NRPP amounting Rs. 63.95 Crore to which MD, APGCL replied that the same will be adjusted in tariff.

Shri Saurabh Agarwal, Chairman, Power Committee, FINER expected APGCL to expedite peak time demand management and proper planning of resources.

Hon'ble Chairperson stated that Prime Minister is committed to attain target for renewable power and opined that APGCL should come up with a new renewable generation project with provision for storage. MD, APGCL replied that the same has been proposed to be incorporated in the policy of Govt. of Assam.

Agenda: Presentation by AEGCL

A PowerPoint presentation was made by MD, AEGCL on the salient features of MYT petition submitted by AEGCL and SLDC. Important points of the discussion are noted below

In True-up for FY 2020-21, AEGCL has shown ARR of Rs.378.56 Crore and a surplus of Rs. 16.36 Crore. For SLDC, in True-Up, ARR of Rs. 4.67 Crore and gap of Rs. 0.40 Crore is shown.

In APR for FY 2021-22, AEGCL has shown ARR of Rs.406.17 Crore and a gap of Rs. 5.72 Crore. For SLDC, In APR, ARR of Rs. 6.15 Crore and surplus of Rs. 1.21 Crore is shown.

In ARR for FY 2022-23,2023-24 and 2024-25, AEGCL has shown ARR of Rs.504.89 Crore, Rs. 530.42 Crore and Rs. 577.71 respectively. In ARR for FY 2022-23,2023-24 and 2024-25, SLDC has shown ARR of Rs.7.74 Crore, Rs. 9.40 Crore and Rs. 11.24 respectively.

AEGCL has submitted a loss of 3.34% for True-up and projected a loss of 3.30% through APR and ARR. AEGCL has a projected transmission charge of Rs.0.452 Rs./kWh and SLDC charge of Rs. 96.49/MW/Day for FY 2022-23.

MD, AEGCL has mentioned that Transmission Loss reduction will be ensured with the help of various projects details of which have been submitted in the tariff petition in the Capital Investment Plan. DGM(F&A) has mentioned that AEGCL has proposed to increase BST by 5 paise from the existing 15 paise to meet the liabilities of the pension trust. Shri, Subodh Sharma stated that Govt. should be made responsible for liabilities of pension trust instead of consumers. Member, Technical requested AEGCL to brief the Commission on how the deficit of pension trust is met in other states.

MD, AEGCL has stated about EOI by private telecom companies for OPGW infrastructure of AEGCL. Shri D.K Sharma, retd. Director PGCIL, mentioned that AEGCL should submit the details of income from OPGW.

Shri Harsh Sutodiya. Ex. member, AIIMO enquired about the timeline for completion for SAMAST which will ensure a proper mechanism to quantify real time transmission loss. MD, AEGCL replied that the four pilot projects of SAMAST shall be completed by Oct'22.

Hon'ble Chairperson requested AEGCL to come up with actual analysis for Transmission loss instead of notional loss for proper reporting in Tariff Petition.

Agenda: Presentation by APDCL

A PowerPoint presentation was made by MD, APDCL on the salient features of MYT petition submitted by APDCL. Important points of the discussion are noted below

In True-Up for FY 2020-21, APDCL submitted ARR of Rs.6571.8 Crore with a gap of Rs.973.49 Crore. In APR for FY 2021-22, APDCL submitted ARR of Rs.7085 Crore with a gap of Rs. 645.57 Crore. In ARR for FY 2022-23,2023-24 and 2024-25, APDCL submitted ARR of Rs. 7536.029 Crore, Rs.8300.39 Crore. and Rs. 9059.01Crore respectively.

MD, APDCL has highlighted that the gap in True Up is mainly due to deviation in Power purchase cost to the tune of Rs.608 Crore. Key driving factor for this deviation are less generation by APGCL, incremental POC charges, additional fixed cost due to demand crash during the covid period, delay in commissioning of Nikachu Hydro Power Plant etc.

MD, APDCL mentioned that APDCL is the first to get the DPR approved for RDSS (Revamped Distribution Sector Scheme) details of which are available in the tariff petition.

AASSIA opined that special consideration should be made for small scale industries in fixing the tariff.

Shri Subodh Sharma has suggested that Govt. should take up a master plan to reduce the revenue gap to improve APDCL's financial health.

FINER requested the Utilities to make a Power Roadmap for the State for the next 10 years. FINER also suggested APDCL to not purchase RECs as the upcoming 1000MW Solar Capacity will fulfill the RPO as per Regulations. FINER emphasized on incorporation of storage facility for the 1000MW Solar Capacity and explore Open Market for trading of this Solar Power.

NESSIA prayed before the Hon'ble Commission to not increase fixed charges as Industries will be affected adversely because of this, any increase in tariff should be recovered through energy charge. Shri M. P Bezbaruah, Prof. Guwahati University also supported the views.

Shri U.K Sharma, member senior Engineer's Forum advised APDCL should take up pilot projects in remote circles for getting better results.

Shri Harsh Sutodiya, Ex. member, AIIMO enquired about Power in hours for industrial feeders, cost of Power Purchase, REC burden of APDCL etc. for a better understanding of Tariff modeling.

The meeting ended with a vote of thanks from and to the Chair.

Sd/-

Secretary,

Assam Electricity Regulatory Commission.

29th Meeting of SAC - LIST OF MEMBERS, SPECIAL INVITEES AND OFFICERS PRESENT

1. Kumar Sanjay Krishna, IAS (Retd), Chairperson, AERC
2. Smt. Bulbuli Borthakur, Member (Law), AERC
3. Shri Satyendra Nath Kalita, Member (Technical), AERC
4. Shri Gautam Talukdar, Secretary, Power (E) Department, Government of Assam
5. Shri Harsh Sutodia, Executive Member, AIMO
6. Shri Subodh Sharma, Consumer Activist
7. Shri Mrinmoy Baruah, Secretary. ABITA
8. Shri M.C Barthakur, Vice President AASSIA
9. Shri J N Baruah, Treasurer, AASSIA
10. Shri M P Bezbaruah, Professor, Guwahati University
11. Shri Kumud Medhi, Secretary, NESSIA
12. Shri Saurabh Agarwal, Chairman Power, FINER
13. Shri D.K. Sarma, Retd. Director, PGCIL
14. Shri Champak. Baruah, Ex-Member (T), APDCL & Member, CGRF (Ghy).
15. Prof. N. B Dev Choudhury, Professor, NIT, Silchar
16. Dr. Aditya Bihar Kandali, Department of Electrical Engineering, JEC
17. Shri U.K. Sharma, Senior Engineer's Forum
18. Dr Satyajit Bhuyan, Professor, AEC

SPECIAL INVITEES

1. Shri Sanjeeva Kumar, IAS (Retd.), Chairman, APGCL
2. Shri Rakesh Kumar, IAS, Managing Director, APDCL & APGCL
3. Shri D Das, Managing Director, AEGCL

OFFICERS FROM APDCL. AEGCL & APGCL

APDCL

1. Shri Anamul Haque Laskar, GM (TRC), APDCL
2. Shri Sumit Kr. Singha, AGM, APDCL

3. Shri N. Deb, AGM (F&A), APDCL

AEGCL

1. Shri L. Bhuyan, CGM, AEGCL
2. Shri HimayshuBaishya, GM, AEGCL
3. Shri Suresh Kaimal, DGM, AEGCL
4. Shri F H Ajhmi, DGM, AEGCL
5. Shri Debasish Paul, AGM, AEGCL
6. Shri Mriganka Bhuyan, AGM, AEGCL
7. Shri Pranab Saha, AGM, AEGCL
8. Shri Bidyut Bikash Das, Consultant, AEGCL

APGCL

1. Mrs Aklantika Saikia, DGM, APGCL
2. Mrs Pinky Deb, AM (F&A), APGCL
3. Shri Manash Jyoti Konwar, JM, APGCL
4. Shri Sunny Kumar Singh, Deloitte India, Consultant

OFFICERS FROM AERC

1. Shri M.K. Deka, ACS (Retd), Secretary, AERC
2. Shri A.N. Devchoudhury, Director (Tariff), AERC
3. Ms. P. Sharma, Joint Director (Regulatory Affairs & Finance Planning),
AERC
4. Shri N.K. Deka, Deputy Director (Gen, PPA, P&P), AERC
5. Mrs R. Baruah, Deputy Director (Engg.), AERC
6. Mrs P. Rabha, Assistant Director (Tariff), AERC

ADVISER FROM AERC:

1. Shri S.K. Roy, ACS (Retd).