



**ASSAM ELECTRICITY REGULATORY COMMISSION
(AERC)**

TARIFF ORDER

**TRUE-UP FOR FY 2014-15 & FY 2015-16
AND ARR FOR FY 2016-17 to FY 2018-19
AND TARIFF FOR FY 2017-18**

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

Petition No. 35/2016

Table of Contents

<u>1 INTRODUCTION</u>	<u>1</u>
1.1 CONSTITUTION OF THE COMMISSION	1
1.2 TARIFF RELATED FUNCTIONS OF THE COMMISSION	1
1.3 BACKGROUND	2
1.4 MULTI YEAR TARIFF REGULATIONS, 2015	3
1.5 PROCEDURAL HISTORY	5
1.6 STATE ADVISORY COMMITTEE MEETING	7
<u>2 SUMMARY OF AEGCL'S PETITION</u>	<u>8</u>
2.1 BACKGROUND	8
2.2 TRUE-UP FOR FY 2014-15 AND FY 2015-16	8
2.3 AGGREGATE REVENUE REQUIREMENT FOR MYT CONTROL PERIOD	9
2.4 PRAYERS OF AEGCL	10
<u>3 BRIEF SUMMARY OF OBJECTIONS RAISED, RESPONSE OF THE AEGCL AND COMMISSION'S COMMENTS</u>	<u>12</u>
<u>4 TRUING UP FOR FY 2014-15 AND FY 2015-16</u>	<u>27</u>
4.1 METHODOLOGY FOR TRUING UP	27
4.2 TRANSMISSION LOSS	28
4.3 REVENUE FROM OPERATIONS	28
4.4 NON-TARIFF INCOME	28
4.5 PGCIL CHARGES	29
4.6 O&M EXPENSES	29
4.7 DEPRECIATION	31
4.8 INTEREST AND FINANCE CHARGES	33
4.9 INTEREST ON WORKING CAPITAL (IoWC)	35
4.10 OTHER DEBITS	36
4.11 BST FOR PENSION FUND (SPECIAL CHARGES FOR TERMINAL BENEFITS)	37
4.12 NET PRIOR PERIOD EXPENSES/(INCOME)	37
4.13 RETURN ON EQUITY	39
4.14 INCOME TAX	39

4.15 ARR AFTER TRUING UP OF FY 2014-15 AND FY 2015-16	39
<u>5 ARR FOR MYT CONTROL PERIOD FROM FY 2016-17 TO FY 2018-19</u>	<u>42</u>
5.1 INTRODUCTION	42
5.2 TRANSMISSION LOSS	42
5.3 TRANSMISSION AVAILABILITY	42
5.4 ANNUAL TRANSMISSION CHARGES FOR MYT CONTROL PERIOD	43
5.5 OPERATION AND MAINTENANCE EXPENSES	44
5.6 CAPITAL EXPENDITURE AND CAPITALISATION	51
5.7 DEPRECIATION	55
5.8 INTEREST ON LOAN CAPITAL.....	58
5.9 RETURN ON EQUITY	60
5.10 INTEREST ON WORKING CAPITAL	61
5.11 PGCIL CHARGES	62
5.12 PROVISION OF INCOME TAX.....	63
5.13 OTHER DEBITS	63
5.14 BST FOR PENSION FUND	63
5.15 NON-TARIFF INCOME	64
5.16 SUMMARY OF ARR FOR CONTROL PERIOD FROM FY 2016-17 TO FY 2018-19	64
<u>6 TRANSMISSION TARIFF FOR FY 2017-18</u>	<u>66</u>
6.1 CUMULATIVE REVENUE GAP/(SURPLUS) AND NET ARR FOR RECOVERY	66
6.2 TRANSMISSION TARIFF FOR FY 2017-18	68
6.3 ANNUAL SLDC CHARGES FOR FY 2017-18.....	71
6.4 APPLICABILITY OF TARIFF	72
<u>7 DIRECTIVES.....</u>	<u>73</u>
<u>8 ANNEXURES</u>	<u>75</u>
8.1 ANNEXURE – 1 - MINUTES OF THE 21 ST MEETING OF THE STATE ADVISORY COMMITTEE.....	75

List of Tables

Table 1: True-up ARR for FY 2014-15 and 2015-16 as submitted by AEGCL (Rs. Crore)	8
Table 2: ARR for FY 2016-17 to 2018-19 as submitted by AEGCL.....	9
Table 3: ARR of State Load Despatch Centre (SLDC) for FY 2016-17 to FY 2018-19 as submitted by AEGCL (Rs. Crore).....	10
Table 4: Transmission Loss as submitted by AEGCL	28
Table 5: Depreciation approved for FY 2014-15 (Rs. Crore).....	32
Table 6: Depreciation approved for FY 2015-16 (Rs. Crore).....	33
Table 7: Approved Interest and Finance Charges for FY 2014-15 (Rs. Crore).....	34
Table 8: Approved Interest and Finance Charges for FY 2015-16 (Rs. Crore).....	35
Table 9: Interest and Finance Charges for FY 2014-15 and FY 2015-16 (Rs. Crore).....	35
Table 10: Approved Interest on Working Capital for FY 2014-15 and FY 2015-16 (Rs. Crore)	36
Table 11: Net Prior Period expenses/(income) approved for FY 2014-15 (Rs. Crore).....	38
Table 12: Net Prior Period expenses/(income) approved for FY 2015-16 (Rs. Crore).....	38
Table 13: ARR approved after Truing up for FY 2014-15 (Rs. Crore)	39
Table 14: ARR approved in the Truing up for FY 2015-16 (Rs. Crore.).....	40
Table 15: Transmission Loss as submitted by AEGCL for FY 2016-17 to FY 2018-19	42
Table 16: Employee Expenses projected by AEGCL (Rs. Crore).....	45
Table 17: R&M expenses projected by AEGCL (Rs. Crore).....	45
Table 18: A&G expenses projected by AEGCL (Rs. Crore)	46
Table 19: Approved Employee Expenses for Control Period (Rs. Crore)	49
Table 20: Computation of K-factor for Control Period (Rs. Crore).....	49
Table 21: Approved R&M Expenses for Control Period (Rs. Crore).....	50
Table 22: Approved A&G Expenses for Control Period (Rs. Crore)	51
Table 23: Capital Expenditure and Capitalisation submitted by AEGCL (Rs. Crore)	51
Table 24: Capital Expenditure approved for AEGCL in past Orders (Rs. Crore)	53

Table 25: Capital Expenditure and capitalisation approved by the Commission (Rs. Crore)	.54
Table 26: Funding of capitalised works approved by the Commission (Rs. Crore)	.....55
Table 27: Depreciation approved for FY 2016-17 (Rs. Crore)	.....56
Table 28: Depreciation approved for FY 2017-18 (Rs. Crore)	.....57
Table 29: Depreciation approved for FY 2018-19 (Rs. Crore)	.....57
Table 30: Projected Interest and Finance charges (Rs. Crore)	.....58
Table 31: Computation of Normative loan outstanding as on April 1, 2016 (Rs. Crore)	.....59
Table 32: Approved Interest on Loan Capital (Rs. Crore)	.....60
Table 33: Return on Equity as submitted by AEGCL (Rs. Crore)	.....60
Table 34: Return on Equity approved by the Commission (Rs. Crore)	.....61
Table 35: Interest on Working Capital as submitted by AEGCL (Rs. Crore)	.....61
Table 36: Interest on Working Capital as approved by the Commission (Rs. Crore)	.....62
Table 37: PGCIL Charges as submitted by AEGCL (Rs. Crore)	.....62
Table 38: PGCIL Charges as approved by the Commission (Rs. Crore)	.....63
Table 39: BST for Pension Fund as submitted by AEGCL (Rs. Crore)	.....63
Table 40: BST for Pension Fund as approved by the Commission (Rs. Crore)	.....64
Table 41: Non-Tariff income as submitted by AEGCL (Rs. Crore)	.....64
Table 42: ARR for Control Period from FY 2016-17 to FY 2018-19 as approved by the Commission (Rs. Crore)	.....65
Table 43: Net ARR for recovery as submitted by AEGCL (Rs. Crore)	.....66
Table 44: Cumulative Revenue (Gap)/Surplus approved till end of FY 2016-17 (Rs. Crore)	.66
Table 45: Revenue (Gap)/Surplus for FY 2016-17 as approved by the Commission (Rs. Crore)	.....67
Table 46: Net ARR for recovery as approved by the Commission (Rs. Crore)	.....68
Table 47: Proposed Transmission tariff as submitted by AEGCL (Rs. Crore)	.....68

List of Abbreviations

A&G	Administration 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
RoE	Return on Equity
ROI	Rate of Interest
RLDC	Regional Load Despatch Centre
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
UPPCL	Uttar Pradesh Power Corporation Ltd.
WPI	Wholesale Price Index

ASSAM ELECTRICITY REGULATORY COMMISSION

Guwahati

Present

Shri Naba Kumar Das, Chairperson

Shri Dipak Chakravarty, Member

Shri Subhash C. Das, Member

Petition No. 35/2016

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

ORDER

(Passed on March 31, 2017)

- (1) The Commission vide its order dated November 21, 2013, approved the Multi Year Tariff applicable for the Assam Electricity Grid Corporation Limited (hereinafter referred to as "AEGCL"), for the period from FY 2013-14 to FY 2015-16. Subsequently, the Commission has issued the Tariff Order for FY 2014-15 on November 21, 2014, and for FY 2015-16 on July 24, 2015 in accordance with the provisions of the Assam Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2006 (herein after referred as "Tariff Regulations, 2006")
- (2) The Commission, in exercise of the powers conferred under Section 61 read with Section 181(2) (zd) of the Act, has notified the Assam Electricity Regulatory Commission (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2015 (hereinafter referred as "MYT Regulations, 2015") on June 2, 2015. 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, 2016 onwards up to March 31, 2019. These Regulations are applicable to all existing and future Generating

Companies, Transmission Licensees and Distribution Licensees within the State of Assam.

- (3) Regulation 6 of the MYT Regulations, 2015 requires the Generating Company, Transmission Licensee, SLDC Business and Distribution Licensee to file the Business Plan for the entire Control Period by 1st July of the year preceding the first year of the Control Period, i.e., before the filing of Multi Year Tariff (MYT) Petition.
- (4) However, considering that AEGCL was preparing and filing the Business Plan for the first time, the Commission vide letter dated August 29, 2015 directed AEGCL to file Business Plan Petition by November 1, 2015.
- (5) Thereafter, AEGCL filed petition for condonation of delay and requested for extension of time for filing of Business Plan till December 31, 2015 in view of 24x7 Power for All document finalized for State of Assam on October 9, 2015. The Commission granted extension of time till November 30, 2015 and directed AEGCL to submit the Business Plan for the three-year Control Period from FY 2016-17 to FY 2018-19 on or before November 30, 2015.
- (6) AEGCL filed the Business Plan Petition for the Control Period from FY 2016-17 to FY 2018-19 on December 12, 2015 along with a Petition for condonation of delay. The Commission deemed it fit to consider SLDC embedded in AEGCL Business Plan for this Control Period. However, the Commission directed AEGCL to complete the process of segregation of accounts of SLDC from AEGCL and to file separate Business Plan Petition for SLDC for the next Control Period.
- (7) The Commission carried out preliminary analysis of the Business Plan Petition and observed that the Business Plan Petition was not as per requirement of MYT Regulations, 2015. Thereafter, AEGCL was directed to submit the revised Business Plan incorporating all the observations and clarifications sought by the Commission from AEGCL by February 12, 2016 and the same was submitted on March 7, 2016. Further, the Commission conducted the Technical Validation Session on the Business Plan Petition on April 26, 2016. The Commission directed AEGCL to submit the Supplementary Petition, duly approved by the Board of Directors, giving the realistic Business Plan after incorporating all revisions in technical and financial parameters.

- (8) Based on the discussions held during the Technical Validation Session and after incorporating the additional information/clarifications, AEGCL filed the revised Business Plan Petition on May 18, 2016. AEGCL also submitted the copy of Board Resolution approving the revised Business Plan duly certified by the Company Secretary, during the hearing on July 26, 2016. This process delayed the issuance of the Business Plan Order.
- (9) Accordingly, the Commission issued the Order on the said Business Plan on September 1, 2016 and directed AEGCL to file the MYT Petition, including the forecast of Aggregate Revenue Requirement for FY 2016-17 to FY 2018-19, true-up for FY 2014-15 and FY 2015-16, actuals of FY 2016-17 (6 months), and projected tariff for FY 2016-17 and FY 2017-18.
- (10) AEGCL has filed Petition for Truing up for FY 2014-15 and FY 2015-16 as per Tariff Regulations, 2006 and approval of ARR for the Control Period from FY 2016-17 to FY 2018-19 and determination of Tariff for FY 2017-18 as per MYT Regulations, 2015 (Petition No.35/2016) on October 31, 2016.
- (11) The Commission conducted preliminary analysis of the Petition submitted by AEGCL and found that the Petition was incomplete in material particulars. Therefore, additional data and clarifications on the MYT Petition were sought from AEGCL vide letter dated December 1, 2016 and these were submitted by them on December 17, 2016.
- (12) The Commission held an Admissibility Hearing on December 17, 2016, and admitted the Petition (Petition No. 35/2016) vide Order dated December 17, 2016. On admission of the Petition, in accordance with Section 64 of the Electricity Act 2003, the Commission directed AEGCL to publish a summary of the ARR and Tariff filings in local dailies to ensure due public participation. A copy of the Petitions 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 at the 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.
- (13) Accordingly, a Public Notice was issued by the AEGCL inviting objections/suggestions from objectors to be submitted on or before January 30, 2017. The notice was published in six (6) leading newspapers of the State on January 7, 2017.

- (14) Meanwhile the Commission received requests for extending the time limit for filing objections/suggestions from some consumers/consumer organizations. The Commission positively considered the requests from different stakeholders, and extended the time limit for filing objections/suggestions up to February 7, 2017.
- (15) The Commission received suggestions/objections from four (4) stakeholders on the Petitions filed by AEGCL. The objectors were notified about the place, date and time of Hearing, to enable them to take part in the Hearing to be held at District Library Auditorium, Guwahati on February 28, 2017. The Hearing was held as scheduled. The details are discussed in the relevant Chapters of this Tariff Order.
- (16) The Petition was also discussed in the meeting of the State Advisory Committee (SAC) (constituted under Section 87 of the Electricity Act, 2003) held on March 4, 2017 at Assam Administrative Staff College, Khanapara, Guwahati.
- (17) The Commission, now in exercise of its powers vested under Sections 61, 62 and 86 of the Electricity Act, 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 objectors and all other relevant materials on record, has carried out the True-up for FY 2014-15 and FY 2015-16, approval of ARR for the Control Period from FY 2016-17 to FY 2018-19, and determination of transmission tariff for FY 2017-18 as detailed in subsequent pages.
- (18) The Commission further directs AEGCL to publish a Public Notice intimating the revised Transmission Charges before the implementation of this Order in English and Vernacular newspapers and on the website of AEGCL.
- (19) The approved rate of Transmission Charges shall be effective from April 10, 2017 and shall continue until replaced by another Order by the Commission.
- (20) Accordingly, the Petition No. 35/2016 stands disposed of.

Sd/-	Sd/-	Sd/-
(S. C. Das)	(D. Chakravarty)	(N. K. Das)
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 Electricity Act, 2003.

1.1.2 The Commission is mandated to exercise the powers and functions conferred under Section 181 of the Electricity Act, 2003 (36 of 2003) and to exercise the functions conferred on it under Section 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 The Government of Assam notified Vide Memo No. PEL151/2003/Pt./165 dated December 10, 2004, the restructuring of the erstwhile Assam State Electricity Board (ASEB) into five entities, namely;

- (i) Assam Electricity Grid Corporation Limited (AEGCL) to carry out function as State Transmission Utility (STU)
- (ii) Assam Power Generation Corporation Limited (APGCL) to carry out function of generation of electricity in the State of Assam
- (iii) Three Electricity Distribution Companies, namely, Lower, Central and Upper Assam Distribution Company Limited, respectively, to carry out functions of distribution and retail supply of electricity in the districts covered under each company area.

1.3.2 AEGCL owns and operates the transmission system previously owned by Assam State Electricity Board (ASEB). AEGCL has started functioning as a separate entity from December 10, 2004. The Government of Assam vide Notification No. PEL.151/2003/Pt/3/349 dated August 16, 2005 issued order to give effect to the reorganization of the ASEB and finalization of the provisional Transfer effected as per the provisions of the Act and the First Transfer Scheme. The Government of Assam notified the opening Balance Sheet updated and finalized based on the Audited Accounts of ASEB as on March 31, 2005 under Notification No. PEL/114/2006/120 dated August 29, 2007.

1.3.3 The Commission notified the AERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 (hereafter referred as Tariff Regulations, 2006) vide Notification No. AERC. 2005/19 dated April 28, 2006, which was published in the Assam Gazette on May 24, 2006. As per Regulation 1.2 of the Tariff Regulations, 2006, the Regulations

shall apply to all the intra-State transmission licensees operating in the State of Assam. The State Government vide notification No. PEL.133/2003/Pt 467 dated March 18, 2009 allowed the Assam State Electricity Board (ASEB) to continue to undertake the limited functions of bulk purchase and bulk supply up to June 15, 2009 in respect to the existing generating capacity and existing contracted capacity for the said period.

- 1.3.4 The Government of Assam vide Notification dated March 12, 2013 dissolved ASEB under Section 131 of the Act with effect from March 31, 2013 and transferred ASEB's current functions and reassigned its personnel to its successor entities namely APDCL, AEGCL and APGCL in accordance with the Scheme of Reorganization.
- 1.3.5 As per Regulation 5.3 of the Tariff Regulations, 2006, based on Multi Year Tariff (MYT) principles, the tariff is to be determined on the basis of the principles enunciated for a period of three years commencing from April 1, 2006 for the transmission business.
- 1.3.6 AEGCL had filed the MYT Petition for the Control Period from FY 2013-14 to FY 2015-16 on April 11, 2013. The Commission, after following the due regulatory process, issued the Tariff Order on November 21, 2013.
- 1.3.7 Subsequently, the Commission has issued the Tariff Order for FY 2014-15 on November 21, 2014, and for FY 2015-16 on July 24, 2015 in accordance with the provisions of the Tariff Regulations, 2006.

1.4 Multi Year Tariff Regulations, 2015

- 1.4.1 The Commission, in exercise of the powers conferred under Section 61 read with Section 181(2) (zd) of the Act, has notified the Assam Electricity Regulatory Commission (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2015 (hereinafter referred as "MYT Regulations, 2015") on June 2, 2015. 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, 2016 onwards up to March 31, 2019. These Regulations are applicable to all existing and future Generating Companies, Transmission Licensees and Distribution Licensees within the State of Assam.
- 1.4.2 Regulation 6 of the MYT Regulations, 2015 requires the Generating Company, Transmission Licensee, SLDC Business and Distribution Licensee to file the Business Plan for the entire Control Period by 1st July of the year preceding the first year of the

Control Period, i.e., before the filing of Multi Year Tariff (MYT) Petition.

- 1.4.3 However, considering that AEGCL was preparing and filing the Business Plan for the first time, the Commission vide letter dated August 29, 2015 directed AEGCL to file Business Plan Petition by November 1, 2015.
- 1.4.4 Thereafter, AEGCL filed Petition for condonation of delay and requested for extension of time for filing of Business Plan till December 31, 2015 in view of 24x7 Power for All document finalized for State of Assam on October 9, 2015. The Commission granted extension of time till November 30, 2015 and directed AEGCL to submit the Business Plan for the three-year Control Period from FY 2016-17 to FY 2018-19 on or before November 30, 2015.
- 1.4.5 AEGCL filed the Business Plan Petition for the Control Period from FY 2016-17 to FY 2018-19 on December 12, 2015 along with a Petition for condonation of delay. The Commission deemed it fit to consider SLDC embedded in AEGCL Business Plan for this Control Period. However, the Commission directed AEGCL to complete the process of segregation of accounts of SLDC from AEGCL and to file separate Business Plan Petition for SLDC for the next Control Period.
- 1.4.6 The Commission carried out preliminary analysis of the Business Plan Petition and observed that the Business Plan Petition was not as per requirement of MYT Regulations, 2015. Thereafter, AEGCL was directed to submit the revised Business Plan incorporating all the observations and clarifications sought by the Commission from AEGCL by February 12, 2016 and the same was submitted on March 7, 2016. Further, the Commission conducted the Technical Validation Session (TVS) on the Business Plan Petition on April 26, 2016. The Commission directed AEGCL to submit the Supplementary Petition, duly approved by the Board of Directors, giving the realistic Business Plan after incorporating all revisions in technical and financial parameters.
- 1.4.7 Based on the discussions held during the TVS and after incorporating the additional information/clarifications, AEGCL filed the revised Business Plan Petition on May 18, 2016. Further, AEGCL submitted the copy of Board Resolution approving the revised Business Plan duly certified by the Company Secretary during the hearing on July 26, 2016. This process delayed the issuance of the Business Plan Order.
- 1.4.8 Accordingly, the Commission issued the Order on the said Business Plan on September 1, 2016 and directed AEGCL to file the MYT Petition, including the forecast

of Aggregate Revenue Requirement for FY 2016-17 to FY 2018-19, true-up for FY 2014-15 and FY 2015-16, actuals of FY 2016-17 (6 months), and projected tariff for FY 2016-17 and FY 2017-18.

- 1.4.9 Accordingly, AEGCL has filed the present Petition for approval of Aggregate Revenue Requirement for the Control Period from FY 2016-17 to FY 2018-19 and tariff for FY 2017-18 as per MYT Regulations, 2015, along with True-up for FY 2014-15 and FY 2015-16 as per Tariff Regulations, 2006.

1.5 Procedural History

- 1.5.1 As per directives of the Commission vide Order dated September 1, 2016, AEGCL has filed the Petition for Truing up for FY 2014-15 and FY 2015-16 as per Tariff Regulations, 2006 and for approval of ARR for the Control Period from FY 2016-17 to FY 2018-19 and determination of Tariff for FY 2017-18 as per MYT Regulations, 2015 (Petition No.35/2016) on October 31, 2016.
- 1.5.2 The Commission conducted preliminary analysis of the Petition submitted by AEGCL and found that the Petition was incomplete in material particulars. Therefore, additional data and clarifications on the MYT Petition were sought from AEGCL vide letter dated December 1, 2016 and these were submitted by them on December 17, 2016.
- 1.5.3 The Commission held an Admissibility Hearing on December 17, 2016, and admitted the Petition (Petition No. 35/2016) vide Order dated December 17, 2016. On admission of the Petition, in accordance with Section 64 of the Act, the Commission directed AEGCL to publish its application in the abridged form and manner to ensure due public participation.
- 1.5.4 The copies of the Petition and other relevant documents were made available to 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. AEGCL was also directed to make the copy of the Petition available on its website. A copy of the Petition was made available on the website of AEGCL (www.aegcl.co.in) and also on the website of the Commission (www.aerc.nicgov.in) in downloadable format. A Public Notice was issued by AEGCL inviting objections/suggestions from stakeholders on or before January 30, 2017, which was published in the following newspapers on January 7, 2017:

Date	Name of Newspaper	Language
07.01.2017	The Sentinel	English
07.01.2017	The Assam Tribune	English
07.01.2017	Asamiya Pratidin	Assamese
07.01.2017	Dainik Janambhumi	Assamese
07.01.2017	Purbanchal Prahari	Hindi
07.01.2017	Dainik Jugasankha	Bengali

- 1.5.5 The time limit for submitting objections/suggestions was stipulated in accordance with the AERC (Conduct of Business) Regulations, 2004. Meanwhile the Commission received requests for extending the time limit for filing objections/suggestions from some consumers/consumer organizations. The Commission positively considered the requests from different stakeholders, and extended the time limit for filing objections/suggestions up to February 7, 2017.
- 1.5.6 While examining the revised submission, the Commission observed additional data requirements vis-à-vis replies to original data requirement, which were sought from AEGCL vide letter dated January 24, 2017. TVS with AEGCL to discuss and sort out data gaps and shortcomings was conducted in the office of the Commission on January 27, 2017.
- 1.1.1 The Commission considered the objections received and sent communication to the objectors to take part in Hearing process by presenting their views in person before the Commission. Accordingly, the Commission scheduled a Hearing in the matter on February 28, 2017 at District Library Auditorium, Guwahati. In this context, Notices were dispatched to the objectors personally/by Registered Post stating the date and time of Hearing. Also, a comprehensive Notice was published in Six (6) newspapers on February 8, 2017 in Assamese and English language. The Hearing was held at District Library Auditorium, Guwahati on February 28, 2017 as scheduled. All objectors/respondents who participated in the Hearing were given opportunity to express their views on the Petition.
- 1.5.7 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.

1.6 State Advisory Committee Meeting

- 1.6.1 A meeting of the State Advisory Committee (SAC) (constituted under Section 87 of the Act) was convened on March 4, 2017 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 October 31, 2016 seeking approval for Aggregate Revenue Requirement and determination of Transmission Charges for the Control Period from FY 2016-17 to 2018-19 along with True up for FY 2014-15 and FY 2015-16. 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 2014-15 and FY 2015-16

2.2.1 AEGCL submitted True-up for FY 2014-15 and FY 2015-16 based on the audited accounts. The summary of Aggregate Revenue Requirement (ARR) and Revenue Gap/(Surplus) claimed by AEGCL for FY 2014-15 and FY 2015-16 is shown in the following Table:

Table 1: True-up ARR for FY 2014-15 and 2015-16 as submitted by AEGCL (Rs. Crore)

Sr. No.	Particulars	FY 2014-15	FY 2015-16
1	PGCIL Charges	268.42	441.43
2	Operation and Maintenance Expenses	145.29	149.16
2.1	<i>Employee Cost</i>	<i>128.62</i>	<i>130.34</i>
2.2	<i>Repair and Maintenance</i>	<i>11.53</i>	<i>11.53</i>
2.3	<i>Administrative and General Expenses</i>	<i>5.14</i>	<i>7.29</i>
4	Depreciation	43.31	48.05
5	Interest and Finance Charges	30.90	38.97
6	Interest on Working Capital	17.29	23.46
7	Other Debits	1.26	0.19
8	SLDC Charges	2.54	1.68
9	BST for Pension Trust Fund	139.10	151.42
10	Net Prior Period Expenses	(20.04)	3.98
11	Sub Total	628.07	858.34
12	Return on Equity	13.99	13.99
13	Total Expenditure	642.06	872.33
14	Less: Non-Tariff Income	93.24	85.99

Sr. No.	Particulars	FY 2014-15	FY 2015-16
15	Aggregate Revenue Requirement	548.82	786.34
16	Add: True-up for FY 2013-14	-	-
17	Net Aggregate Revenue Requirement	548.82	786.34
18	Revenue with Approved Tariff	462.52	537.92
19	Revenue Gap/(Surplus)	86.30	248.42

2.3 Aggregate Revenue Requirement for MYT Control Period

2.3.1 AEGCL has projected the ARR of Rs. 1047.12 Crore for FY 2016-17, Rs. 1585.27 Crore for FY 2017-18 and Rs. 1588.40 Crore for FY 2018-19 as detailed in the Table below:

Table 2: ARR for FY 2016-17 to 2018-19 as submitted by AEGCL

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	PGCIL Charges	564.57	666.24	846.12
2	O&M Expenses	195.50	214.97	239.24
2.1	<i>Employee Cost</i>	<i>175.13</i>	<i>192.64</i>	<i>215.76</i>
2.2	<i>Repair & Maintenance</i>	<i>11.52</i>	<i>12.10</i>	<i>12.70</i>
2.3	<i>Administrative & General Expenses</i>	<i>8.85</i>	<i>10.23</i>	<i>10.78</i>
3	BST for Pension Trust Fund	181.14	219.96	261.32
4	Depreciation	88.36	106.77	142.99
5	Interest and Finance Charges	54.55	58.98	61.95
6	Interest on Working Capital	28.18	40.24	41.03
7	Other Debits	0.19	0.19	0.19
8	Return on Equity	22.97	34.44	85.12
9	Less: Non-Tariff Income	75.24	73.04	71.20
10	Less: Expenses Capitalised	15.78	18.21	18.36
11	Add: Interest Expenses on State Government Loan approved by Commission	2.69	-	-
12	Add: Revenue Gap for FY 2014-15 and FY 2015-16	-	334.72	-
13	Total	1047.12	1585.27	1588.40
14	Per Unit Charges for PGCIL (Rs.)	0.64	0.84	0.67

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
15	Per Unit Charges of AEGCL excluding PGCIL Charges (Rs.)	0.52	0.60	0.55
18	Total Per Unit Charges (Rs.)	1.16	1.44	1.22

2.3.2 AEGCL has also submitted the SLDC Charges for the Control Period, which mainly comprises Employee Cost, R&M Expenses and A&G Expenses as shown in the following Table:

Table 3: ARR of State Load Despatch Centre (SLDC) for FY 2016-17 to FY 2018-19 as submitted by AEGCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Employee Cost	2.11	2.33	2.60
Repair and Maintenance Expenses	0.02	0.02	0.02
Administrative and General Expenses	0.24	0.25	0.26
Total SLDC Charges	2.37	2.60	2.88

2.4 Prayers of AEGCL

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

“

- a) *In order to align the thoughts and principles behind the Tariff Order and the ARR, AEGCL respectfully seeks an opportunity to present their case prior to the finalization of the Tariff Order. AEGCL believes that such an approach would go a long way towards providing a fair treatment to all the stakeholders and may eliminate the need for a review or clarification.*
- b) *AEGCL may also be permitted to propose suitable changes to the ARR and the mechanism of meeting the revenue on further analysis, prior to the final approval by the Hon'ble Commission.*

In view of the above, the petitioner respectfully prays that Hon'ble Commission may:

- (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 2015;*
- (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) stakeholders on the Petition filed by AEGCL, from the following objectors:

Sr. No.	Name of Objector
1	Assam Bidyut Grahak Adhikar Parishad
2	Shri Anuj Kumar Baruah
3	Assam Branch of Indian Tea Association (ABITA), Guwahati
4	Federation of Industry & Commerce of North Eastern Region (FINER)

3.1.2 AEGCL has 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 District Library Auditorium, Guwahati on February 28, 2017.

3.1.5 The objector/s attended the Hearings and submitted their views/suggestions. All the written representations submitted to the Commission and the oral submissions made before the Commission in the Hearing and the responses of AEGCL 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 related to the ARR and Tariff Petition and also those raised during the course of Hearings have been grouped and

addressed issue-wise, in order to avoid repetition.

Issue 1: PGCIL Charges

Objection

FINER submitted that AEGCL has projected huge increase in PGCIL charges in the true-up proceedings without any justification. AEGCL has claimed increase of Rs. 52 Crore for FY 2014-15 and Rs. 186 Crore for FY 2015-16 on this account. FINER added that AEGCL has escalated PGCIL charges at 18% and 27% for the Control Period over the estimated charges for FY 2015-16 without giving any rationale. FINER submitted that PGCIL Charges are fixed by the CERC and the details of Tariff Orders passed by CERC have also not been given. FINER added that such huge amounts of PGCIL charges cannot be passed on without proper justification and details.

ABITA submitted that AEGCL has assumed an escalation rate of 18% and 27% to project the PGCIL Charges for FY 2017-18 and FY 2018-19 in line with the projection of average energy peak load. The Year-on-Year increase of more than 20% in PGCIL charges is highly doubtful in view of the increased availability of power primarily from replacement plant of NTPS and LTPS. ABITA requested the Commission to approve PGCIL Charges considering a moderate escalation of 10% on the actual PGCIL charges of FY 2015-16.

Response of AEGCL

AEGCL submitted that PGCIL raises bills to AEGCL as per CERC guidelines. The true-up petitions are made as per the statutory as well as C&AG audited Annual Accounts. Moreover, all the actual bills for FY 2014-15 and FY 2015-16 and 10 months of FY 2016-17 raised by PGCIL have been submitted to the Commission. AEGCL added that after the implementation of Point of Connection (POC) regime, the PGCIL Charges have increased from the month of May, 2015. Accordingly, the actual expenditure towards PGCIL charges has been claimed.

Commission's View

The Commission has verified the PGCIL bills submitted by AEGCL for FY 2014-15 and FY 2015-16, which tally with the expenses booked under the Audited Accounts. These Charges are payable to PGCIL as billed and are dependent on the POC mechanism, as specified by Central Electricity Regulatory Commission (CERC). The POC mechanism results in higher PGCIL Charges for the entire North Eastern Region

including Assam, and AEGCL has no control over the same. Hence, the Commission has approved the actual PGCIL Charges in the true-up for FY 2014-15 and FY 2015-16. The PGCIL Charges for FY 2016-17 have been estimated based on the actual PGCIL Charges billed in the first six months upto September 2016, and for FY 2017-18 and FY 2018-19, the PGCIL Charges have been approved based on the revised lower peak load projections submitted by AEGCL.

Further, PGCIL Charges account for around 50% of AEGCL's ARR, whereas in most other States, the PGCIL Charges are billed directly to the DISCOM and are not included in the Transmission Licensee's ARR, unlike in the case of AEGCL. The Commission directs AEGCL and APDCL to work out the modalities to make APDCL rather than AEGCL the beneficiary of PGCIL, before the commencement of the next MYT Control Period, so that the PGCIL bills are raised to APDCL directly.

Issue 2: Operation and Maintenance (O&M) Expenses

Objection

FINER submitted that AEGCL should submit the complete data regarding length of transmission lines, transformation capacity and substation bays to the Commission for determining the O&M costs for FY 2016-17 to FY 2018-19. FINER further added that AEGCL has very high contribution of Employee Expenses in the total ARR, however, it is not spending enough on R&M expenses. AEGCL should improve its operational performance with judicious expenditure on R&M and technology intervention to reduce employee costs.

ABITA submitted that AEGCL has sought approval of O&M expenses for FY 2014-15 and FY 2015-16 on actual basis. The components of O&M expenses are mainly controllable in nature, therefore, O&M Expenses should not be approved at actuals. ABITA proposed allowance of O&M expenses of Rs.141.33 Crore and Rs.143.35 Crore against Rs.145.29 Crore and Rs.149.16 Crore for FY 2014-15 and FY 2015-16, respectively.

ABITA added that AEGCL has considered employee expenses for FY 2016-17 based on actuals for H1 and estimated for H2 of FY 2016-17. Further, these expenses have been escalated by 10% and 12% to project employee expenses for FY 2017-18 and FY 2018-19, respectively. However, AEGCL has not provided any explanation for such high projection, i.e., 33% increase over actual employee expenses during FY 2015-16.

The huge increase in employee expenses is not justified in view of projected decrease in employee strength from 1978 Nos. in FY 2016-17 to 1703 Nos. in FY 2018-19. ABITA requested the Commission to approve employee expenses at an escalation rate of 7.2%, which is the average CPI increase of last three years, in line with the MYT Regulations, 2015.

ABITA submitted that projection of A&G expenses and R&M expenses for the Control Period is not in line with AERC MYT Regulations, 2015. ABITA requested the Commission to approve A&G expenses and R&M Expenses at an annual escalation rate of 1.83%, i.e., equivalent to three-year increase in WPI on actual expenses of FY 2015-16.

Response of AEGCL

AEGCL submitted that it has 56 nos. of existing sub-stations with different level of Transformation capacities. Moreover, AEGCL operates 7.2 km of 400 kV, 1466 km of 220 kV, 2823 km of 132 kV, and 554 km of 66 kV Transmission Lines. AEGCL further submitted that the basis for projection of employee expenses is submitted in MYT Petition. R&M expenses have been projected based on past trends.

AEGCL submitted that amounts proposed by ABITA may not be considered because the figures submitted by AEGCL in the True-Up Petitions are the actual expenses incurred by AEGCL in FY 2014-15 and FY 2015-16 as per Statutory and C&AG audited Annual Accounts, and these expenses are uncontrollable in nature.

AEGCL submitted that key factors such as impact of Revision of Pay (ROP) 2016, promotion of employees, increase in DA, annual increments in basic pay, new recruitments, etc., have not been considered in ABITA's proposal. AEGCL has projected A&G and R&M Expenses for FY 2016-17 based on actual data for first six months (H1). The estimation for next six months (H2) for FY 2016-17 and projections for FY 2017-18 and FY 2018-19 are based on the estimated price escalation.

Commission's View

The MYT Regulations, 2015 specify the formula for allowing O&M expenses for Transmission Licensees for the MYT Control Period, The Commission has allowed the O&M expenses for the MYT Control Period in accordance with the MYT Regulations, 2015, as elaborated in Chapter 5 of this Order.

Issue 3: Return on Equity

Objection

FINER and ABITA submitted that the proposed Return on Equity for FY 2016-17 to FY 2018-19 is much higher as compared to that in FY 2015-16. FINER requested the Commission to approve Return on Equity in accordance with AERC MYT Regulations, 2015 after strict scrutiny.

ABITA requested the Commission to approve the Return on Equity on equity base as approved by the Commission in the Business Plan Order.

Response of AEGCL

AEGCL submitted that it has computed Return on Equity as per Regulation 34 of AERC MYT Regulations, 2015 and additions of equity shown by AEGCL are as per the approved Business Plan.

Commission's View

As elaborated in Chapter 5 of this Order, AEGCL has considered the capital expenditure approved in the Business Plan Order rather than the approved capitalization, for computing the Return on Equity on the proposed equity addition during the Control Period. The Commission has considered equity addition with reference to the capitalization approved in this Order, and the Return on Equity has been approved accordingly.

Issue 4: Bulk Supply Tariff (BST) – Terminal Benefits

Objection

FINER submitted that approving 20 paise/kWh as Special Charge on Bulk Supply Tariff (BST) would lead to an escalation in the tariff. AEGCL should pursue the matter with the Government of Assam to ensure adequate funding to the Pension Trust Fund to avoid burden on consumers through additional tariff.

ABITA submitted that energy sales as per MYT Petition of APDCL is increasing at a rate of 13-14%, however, the escalation rate used by AEGCL for projecting BST expenses is approximately 20%. ABITA requested the Commission to approve BST charges at 10% escalation rate on the actual BST expense for FY 2015-16.

Response of AEGCL

AEGCL submitted that BST has been calculated as per Tariff Order dated November 21, 2014 @ 20 paise per unit on energy transmitted to APDCL.

Commission's View

The Commission has approved the BST @ 20 paise/kWh of energy injected into the APDCL grid by AEGCL, based on energy input approved for APDCL in APDCL's MYT Order, in accordance with the approach adopted in earlier Orders.

Issue 5: Depreciation

Objection

FINER submitted that AEGCL has claimed depreciation on the entire Gross Fixed Assets (GFA) without deducting the depreciation on the grant component. FINER requested the Commission to disallow the depreciation on the grant component for the Control Period. Similar approach has been adopted in other States like Chhattisgarh, Delhi, Gujarat, Jammu & Kashmir.

ABITA submitted that AEGCL has not provided the detailed calculation and methodology for depreciation claimed for FY 2014-15 and FY 2015-16. ABITA requested the Commission to use the methodology used in the past truing up Orders and disallow depreciation on assets created from grants. ABITA proposed depreciation of Rs.15.30 Crore and Rs.17.19 Crore for FY 2014-15 and FY 2015-16, respectively. ABITA added that the depreciation rates approved by the Commission as per AERC MYT Regulations, 2015 are substantially high and these depreciation rates should be applicable only on new assets added from FY 2016-17 onwards. For existing assets, ABITA requested the Commission to compute depreciation on Net Fixed Assets as on March 31, 2016 over 10 years. ABITA proposed depreciation of Rs. 24.13 Crore, Rs. 35.65 Crore and Rs. 32.84 Crore for each year of the Control Period, respectively.

Response of AEGCL

AEGCL submitted that it has calculated depreciation as per AERC Tariff Regulations, 2006 in the truing up Petitions for FY 2014-15 and FY 2015-16. AEGCL added that as per GoA (Power (Elect.) Mines & Minerals Department) Order No. PEL. 133/2003/pt/463 dated 03.03.2009, *"Grants & subsidies towards creation of capital assets paid by the GoA to ASEB and its successor Companies should be treated as*

promoter's contribution", AEGCL is eligible to claim depreciation on assets created out of grants. Thus, views of ABITA may not be accepted.

Commission's View

This issue has been settled several times by the Commission and the Hon'ble APTEL has also ruled that the Commission's decision to disallow depreciation on the assets funded out of grants is correct, and in accordance with the AERC Tariff Regulations, 2006. The Commission has accordingly disallowed depreciation on grant funded assets.

Issue 6: Interest and Finance Charges

Objection

FINER submitted that AEGCL has proposed penal interest at the rate of 2.75% in the event of default in the repayment of instalments of principal or interest. However, AERC MYT Regulations, 2015 does not provide for allowance of penal interest. Being controllable cost, the penal interest proposed by AEGCL should not be allowed for truing up for FY 2014-15 and FY 2015-16 as well as for FY 2016-17 to FY 2018-19.

ABITA proposed that interest and finance cost of Rs.15.73 Crore for FY 2014-15 and Rs.21.45 Crore for FY 2015-16 may only be approved. AEGCL requested the Commission to disallow penal interest and other borrowing cost as these costs are incurred due to inefficiencies of AEGCL. ABITA requested the Commission to disallow interest on GPF and repayment due in line with the approach adopted in past Orders.

ABITA submitted that AEGCL has considered interest rate of approximately 7% for projecting the Interest expenses for the Control Period. The actual interest rate for FY 2014-15 and FY 2015-16, as worked out by ABITA, is approximately 3.8% and 4.5%, respectively. ABITA requested the Commission to approve interest of Rs. 25.11 Crore, Rs. 28.05 Crore and Rs. 28.07 Crore for each year of Control Period, respectively, by considering repayment equal to depreciation and interest rate of 4.5%.

Response of AEGCL

As regards FINER objection, AEGCL submitted that it has filed truing up Petitions for FY 2014-15 and FY 2015-16 as per Statutory as well as CA&G Audited Annual Accounts. AEGCL further clarified that it has not considered Penal Interest for FY 2016-17 to FY 2018-19.

AEGCL submitted that the other borrowing costs include Bank Charges, Bank Commissions, etc., which are incurred not because of inefficiencies of AEGCL. Further, AEGCL submitted that GPF is shown as unsecured Loan in audited accounts. Interest on GPF should have been allowed like Interest on other Unsecured Loans (e.g., GoA Loan, ADB Loan, etc.) allowed by the Commission.

AEGCL submitted that as per GoA Finance (Budget) Department Order No. BW.22/89/175 dated March 27, 2006; *Rate of Interest on Loans to ASEB is 10%*. Moreover, in the same order it is stated that *if loans are given by the GoI, FIs the rate of Interest on such loan shall be charged ½% more than above rate of interest*. Hence, ABITA's views may not be accepted.

Commission's View

The Commission has considered the rate of interest on the GoA loans as 10% based on documentation submitted by AEGCL, and has not considered the penal interest rate applicable in case of default in repayment of principal and/or payment of interest, as such penal amounts cannot be passed on to the consumers. For the MYT Control Period, the Commission has considered the net normative opening loan for FY 2016-17 in accordance with the MYT Regulations, 2015, after deducting the accumulated depreciation, and has approved the normative interest expenses after considering the additional loans based on the approved capitalization, as elaborated in Chapter 5 of this Order.

Issue 7: Interest on Working Capital (IWC)

Objection

FINER submitted that AEGCL has proposed IWC of Rs. 28.18 Crore, Rs. 40.24 Crore and Rs. 41.03 Crore for FY 2016-17, FY 2017-18 and FY 2018-19, respectively. The Commission should approve the IWC in accordance with AERC MYT Regulations, 2015.

ABITA proposed IWC of Rs.17.29 Crore and Rs.14.97 Crore for FY 2014-15 and FY 2015-16, respectively, based on the revised estimates for O&M expenses, GFA and Revenue Requirement. ABITA further added that interest rate on working capital should be SBI Base Rate of 9.25% plus 350 basis points, which works out to 12.75% instead of 12.80% as proposed by AEGCL.

Response of AEGCL

AEGCL submitted that it has claimed IWC for FY 2016-17 to FY 2018-19 as per AERC MYT Regulations, 2015.

AEGCL submitted that O&M expenses and GFA are actuals as per the Statutory and C&AG Audited Annual Accounts. Hence, the amounts proposed by AEGCL may be approved without any disallowances.

AEGCL further submitted documentary evidence for applicable SBI Base Rate being 9.30% instead of 9.25%. Hence, interest rate on working capital should be 12.80%.

Commission's View

The Commission has approved the IWC strictly in accordance with the Tariff Regulations, 2006 while truing up for FY 2014-15 and FY 2015-16, and in accordance with the AERC MYT Regulations, 2015 for the MYT Control Period, based on the components of working capital approved in this Order, viz., O&M expenses, GFA, and Receivables. The interest rate for working capital has been considered as 12.80% for the MYT Control Period in accordance with AERC MYT Regulations, 2015.

Issue 8: Non-Tariff Income

Objection

FINER submitted that AEGCL should be directed to submit full details of forecast of Non-Tariff Income. ABITA submitted that AEGCL has proposed a continuous reduction in Non-Tariff Income over the Control Period without any rationale. ABITA further added that Non-Tariff Income has increased at a CAGR of 12% from Rs.61.25 Crore in FY 2012-13 to Rs.85.99 Crore in FY 2015-16. ABITA requested the Commission to approve Non-Tariff Income at an annual escalation rate of 12% on the Non-Tariff Income of FY 2015-16.

Response of AEGCL

AEGCL submitted that it has projected the Non-Tariff Income for FY 2016-17 based on actual of H1 and projection for H2 of FY 2016-17. The downward trend has been projected on account of reduction in income from interest on fixed deposits with banks due to withdrawal of fixed deposits for capital works.

Commission's View

The Commission has considered the Non-Tariff Income for each year of the MYT Control Period at the same level as the actual Non-Tariff Income in FY 2015-16.

Issue 9: Other Debits

Objection

FINER and ABITA submitted that as per the Audited Accounts, the Other Debits primarily comprise miscellaneous losses written-off and write off of deferred revenue expenditure, which do not form a part of ARR of the transmission utility. AEGCL has claimed other debits without any rationale.

Response of AEGCL

AEGCL submitted that details of Other Debits have been submitted to the Commission. Other debits include some expenses, which are incurred due to certain unavoidable circumstances such as loss of materials on account of flood, cyclone, fire, loss on account of pilferage, Loss on sale on scrap, etc. Hence, these expenses may be allowed.

Commission's View

The Commission has allowed Other Debits in the true-up for FY 2014-15 and FY 2015-16 after analysing the various heads of Other Debits, as elaborated in Chapter 4 of this Order.

Issue 10: Capital Expenditure

Objection

FINER submitted that the Commission should direct AEGCL to submit a detailed cost-benefit analysis for each scheme or group of schemes. This analysis should be duly supported by system studies on realistic generation program and load profile for each year. FINER further added that AEGCL should submit the Transmission Plan comprising vital schemes, viz., power evacuation schemes, system strengthening schemes, reactive power compensation, etc.

FINER submitted that AEGCL has proposed extremely high capital expenditure plan for the Control Period without proportionate reduction in losses. FINER further submitted that AEGCL should first satisfy the Commission regarding the capital expenditure incurred in previous years and whether capital expenditure incurred has actually been put to proper use or not. AEGCL should also furnish the Fixed Asset Register (FAR), Physical Completion Certificate (PCC), and Financial Completion Certificate (FCC) to the Commission as directed for allowing capital expenditure and other related expenditure for the Control Period.

ABITA submitted that capital expenditure proposed for the Control Period is very high as compared to the actual capitalisation of assets in the last 5 years. Also, the sum of Grants, Loans and Equity as projected by AEGCL for each year in the MYT Control Period is not matching with capital expenditure projected by AEGCL. ABITA further added that closing CWIP projected in Balance Sheet is overstated compared to proposed capital expenditure. AEGCL requested the Commission for detailed scrutiny of scheme-wise capital expenditure, source of funding and capitalisations schedule.

Response of AEGCL

AEGCL submitted that the justifications for proposed capital expenditure are already provided In the Business Plan (Chapter-2, Clause 2.0(B)), However, cost benefit analysis is not undertaken, because AEGCL network has still to reach the rural areas and also there exists constraints in the network, which needs to be removed. If cost benefit analysis is considered, the pay-back period may not justify some individual projects, which may affect 24x7 Power for All schemes formulated by Government of India and Government of Assam. Further, the projects are funded either 100% by Government of India or in 90:10 funding ratio, where impact of only 10% will be felt. There is no major impact in calculating Transmission Charges. AEGCL always submits the Financial Internal Rate of Return (FIRR), while applying for loan for Externally Aided Projects (EAP). AEGCL submitted the details of cost benefit analysis in its reply for such projects. AEGCL also submitted the Transmission Plan as desired by FINER.

AEGCL submitted that projections of capital expenditure are based on Business Plan approved by the Commission. As regards the mismatch of capital expenditure with sum of Grants, Loans and equity, AEGCL submitted that ABITA has considered GPF as a loan component for Capital Expenditure, however, the accumulation of GPF are not utilised for Capital Works. The mismatch has been rectified and revised Capital

expenditure and CWIP projections has been submitted to the Commission vide letter No. AEGCL/HQ/ACCTTS/2007/9(Part I)/9 dated February 2, 2017.

Commission's View

As elaborated in Chapter 5 of this Order, AEGCL has considered the capital expenditure approved in the Business Plan Order rather than the approved capitalization. The Commission has approved the capitalisation for the MYT Control Period based on the capitalisation approved in the Business Plan Order, and the present status of the projects.

Issue 11: Transmission Loss

Objection

FINER submitted that AEGCL operates at 33 kV voltage and above, and as the losses are lower at voltages above 33 kV, the Commission should direct AEGCL to carry out system studies for determination of voltage-wise transmission loss in the system through scientific methods and energy audit for estimating the actual transmission loss level. FINER submitted that AEGCL should comply with the direction of submitting the voltage-wise losses to the Commission and to all consumers.

Response of AEGCL

AEGCL submitted that it does not operate at 33 kV level. AEGCL submitted that the overall losses are in line with the Standards specified by the Central Electricity Authority (CEA).

Commission's View

It is clarified that AEGCL does not operate at 33 kV level, which is within the jurisdiction of APDCL.

The Commission directs AEGCL to carry out the Energy Audit for FY 2017-18 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 for the first six months of FY 2017-18, should be submitted along with the Tariff Petition for FY 2018-19.

Issue 12: Transmission Charges

Objection

FINER submitted that the proposed increase in per unit transmission tariff will put additional burden on Open Access consumers of Assam, who are already paying substantially high tariff. Hence, AEGCL should make efforts to reduce its operational costs in order to reduce transmission tariff. FINER further submitted that there is no clarity regarding the formula proposed in MYT Petition for determination of transmission charges, since such formula is not supported by Open Access Regulations notified by the Commission. During the Public Hearing, FINER submitted that the proposed Transmission Charge at around Rs. 1.44 per kWh for FY 2017-18 is very high, especially in comparison to the Transmission Charges of around Rs. 0.20 per kWh to Rs. 0.30 per kWh prevalent in other States.

Response of AEGCL

AEGCL submitted that it has provided element-wise justification for its projections in the MYT Petition for the proposed increase in transmission tariff. As regards the proposed formula for determination of Transmission Charges, AEGCL submitted that the derivation of the formula is based on PoC regime, which has a direct linkage to the availability of power during peak load hours.

Commission's View

The steep increase in Transmission Charges per kWh proposed by AEGCL in its Petition is largely due to the projected increase in PGCIL Charges, which account for around 50% of AEGCL's ARR. The comparison with the Transmission Charges applicable in other States may not be appropriate, as the units wheeled by AEGCL are on the lower side leading to a higher per unit charge, and also, in most other States, the PGCIL Charges are billed directly to the DISCOM and are not included in the Transmission Licensee's ARR, unlike in the case of AEGCL, where PGCIL Charges form 50% of AEGCL's ARR.

At the same time, the Open Access consumers are liable to pay the applicable PGCIL Charges separately for their Open Access transaction. Hence, as elaborated in Chapter 6 of this Order, the Commission has calculated the per unit Transmission Access Charges applicable for Open Access transactions, after excluding the PGCIL Charges component from AEGCL's ARR.

Issue 13: SLDC Charges

Objection

ABITA submitted that AEGCL has proposed SLDC Charges of Rs. 2.54 Crore as against approved Charges of Rs. 2.12 Crore. Any additional cost incurred above the cost approved by the Commission should not be passed on to the consumers.

Response of AEGCL

AEGCL submitted that SLDC charges claimed in the Petition are actual charges as per the Statutory and C&AG Audited Annual Accounts. Hence, ABITA's views should not be accepted.

Commission's View

The actual SLDC Charges, comprising O&M expenses, have been allowed by the Commission after true-up for FY 2014-15 and FY 2015-16, based on prudence check.

Issue 14: Revenue (Gap)/Surplus

Objection

FINER submitted that it is not clear about the Revenue Gap claimed after truing up for FY 2014-15 and FY 2015-16.

ABITA requested the Commission to consider the net surplus of Rs. 23.01 Crore for FY 2014-15 and Rs. 32.46 Crore for FY 2015-16, which had been used to reduce the revenue requirement for FY 2014-15 and FY 2015-16 in the respective Tariff Orders. However, the same has not been considered by AEGCL. ABITA requested the Commission to approve Revenue Gap for FY 2014-15 and FY 2015-16 as per estimates proposed by ABITA.

Response of AEGCL

AEGCL submitted that the Revenue Gap of Rs. 86.30 Crore for FY 2014-15 and Rs. 248.42 Crore for FY 2015-16 in the Petition.

AEGCL has revised the Truing Up amount for FY 2014-15 and FY 2015-16 after considering net surplus of Rs. 23.01 Crore for FY 2014-15 and Rs. 32.46 Crore for FY 2015-16 and submitted the same to the Commission vide letter No. AEGCL/HQ/ACCTTS/2007/9 (Part I)/9 dated February 2, 2017.

Commission's View

While truing up for FY 2014-15 and FY 2015-16, the Commission has considered the net Revenue Surplus of previous years, which had been adjusted against the revenue requirement for FY 2014-15 and FY 2015-16 in the respective Tariff Orders, in order to ensure the correct comparison between approved and true-up values.

Issue 15: Approach for True-up

Objection

FINER submitted that the truing up should be done by the Commission as per the provisions of the Tariff Regulations, 2015 read with the principles laid down in the Judgments of the Hon'ble Supreme Court and APTEL. FINER added that Hon'ble Supreme Court in UPPCL V NTPC & Ors. (2009) 6 SCC 235 held that the cost of electricity should be recovered from the present consumers and not after substantial delay.

FINER submitted that the truing up should not be done without completion of reconciliation, as mentioned by the Auditors in various notes to accounts.

Response of AEGCL

AEGCL submitted that it has made the claims as per Statutory as well as CA&G audited annual accounts and Tariff Order passed by the Commission. AEGCL submitted that the reconciliations are made with Balance Sheet items, viz., inter unit reconciliations, reconciliation of receivables and payables, etc., which do not affect the ARR components.

Commission's View

The Commission has done the true-up of each head of expense and revenue for FY 2014-15 and FY 2015-16 based on the audited accounts, and after due prudence check, as elaborated in Chapter 4 of this Order.

4 Truing up for FY 2014-15 and FY 2015-16

4.1 Methodology for Truing Up

- 4.1.1 AEGCL has sought true-up for FY 2014-15 and FY 2015-16, with the Revenue Gap/(Surplus) to be recovered from APDCL.
- 4.1.2 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 hence, the projections might vary over the course of the year.
- 4.1.3 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. In case of actual fixed costs being higher than the approved fixed costs, there is no mechanism to recover the additional fixed costs over and above the approved fixed costs during the year, as the tariff for the Licensee cannot be amended more than once as per Regulation 5.1 of Tariff Regulations, 2006.
- 4.1.4 Under the truing up mechanism, AEGCL has requested for approval of the difference between actual expenditure and the expenditure approved by the Commission for FY 2014-15 and FY 2015-16.
- 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 present year's tariff, subject to prudence check.
- 4.1.6 Based on above methodology, AEGCL submitted the truing up Petition for FY 2014-15 and FY 2015-16, supported by audited Annual Accounts.
- 4.1.7 The Commission has approved the ARR for FY 2014-15 and FY 2015-16 in the MYT Order dated November 21, 2013. Further, the Commission has approved the revised ARR and Tariff for FY 2014-15 and FY 2015-16 in Order dated November 21, 2014 and July 24, 2015 respectively.
- 4.1.8 In the present Order, the Commission has carried out the truing up for FY 2014-15 and FY 2015-16 based on the submissions of AEGCL in accordance with Tariff

Regulations, 2006 and subject to prudence check.

4.2 Transmission Loss

4.2.1 AEGCL submitted the Transmission Loss of 3.84% for FY 2014-15 and 3.64% for FY 2015-16, as shown in the following Table:

Table 4: Transmission Loss as submitted by AEGCL

Sr. No.	Particulars	FY 2014-15		FY 2015-16	
		Approved in Tariff Order	Actual	Approved in Tariff Order	Actual
1	Energy Available at G<>T interface (MU)	7,232.82	7,232.82	7,960.73	7,857.25
2	Energy Transmitted at T<>D interface (MU)	6,955.08	6,955.08	7,670.96	7,571.24
3	Transmission Loss (%)	3.84%	3.84%	3.64%	3.64%

4.2.2 The Commission has verified the Transmission loss through documentary evidences submitted by AEGCL and found that the Transmission Loss submitted is correct.

Hence, the Commission accepts the submission of AEGCL and approves the Transmission Loss of 3.84% for FY 2014-15 and 3.64% for FY 2015-16.

4.3 Revenue from Operations

4.3.1 AEGCL has claimed Rs. 462.52 Crore and Rs. 537.92 Crore as revenue from operations for FY 2014-15 and FY 2015-16, respectively. The same amount is reflected in the Audited Accounts of AEGCL for FY 2014-15 and FY 2015-16.

The Commission approves the actual revenue of Rs. 462.52 Crore and Rs. 537.92 Crore in the Truing up for FY 2014-15 and FY 2015-16, respectively.

4.4 Non-Tariff Income

4.4.1 The Commission had approved the Non-Tariff Income at Rs. 64.73 Crore for FY 2014-15 and Rs. 55.71 Crore for FY 2015-16 in the respective Tariff Orders, whereas AEGCL has submitted Non-Tariff Income of Rs. 93.24 Crore for FY 2014-15 and Rs.

85.99 Crore for FY 2015-16, which is as per the Audited Accounts.

The Commission approves the Non-Tariff Income at Rs. 93.24 Crore and Rs. 85.99 Crore in the truing up for FY 2014-15 and FY 2015-16, respectively.

4.5 PGCIL Charges

4.5.1 The Commission had approved PGCIL Charges of Rs. 216.30 Crore for FY 2014-15 and Rs. 254.55 Crore for FY 2015-16 in the respective Tariff Orders, against which AEGCL has claimed actual PGCIL Charges of Rs. 268.42 Crore for FY 2014-15 and Rs. 441.43 Crore for FY 2015-16.

4.5.2 The Commission has duly scrutinised PGCIL Charges claimed by AEGCL with copies of monthly bills submitted for FY 2014-15 and FY 2015-16. The Commission notes that PGCIL Charges claimed are gross billed amount. However, rebate received and credit given to Open Access Consumers have been shown separately under Non-Tariff Income. The PGCIL Charges are to be paid in accordance with the Orders issued by the CERC. The actual expenditure incurred by AEGCL towards PGCIL charges as per the Audited Accounts is Rs. 268.42 Crore and 441.43 Crore for respective financial years.

Therefore, the Commission approves PGCIL Charges of Rs. 268.42 Crore for FY 2014-15 and Rs. 441.43 Crore for FY 2015-16 in the truing up.

4.6 O&M Expenses

4.6.1 Employee Expenses

The Commission had approved Rs. 128.95 Crore and Rs. 138.90 Crore for FY 2014-15 and FY 2015-16, respectively, towards employee expenses in the respective Tariff Orders, whereas AEGCL has claimed Rs. 128.62 Crore and Rs. 130.33 Crore towards employee expenses for FY 2014-15 and FY 2015-16, respectively, based on the Audited Accounts.

The actual employee expenses are lower than the approved employee expenses in FY 2015-16 and almost equal to the approved employee expenses in FY 2014-15. Hence, the Commission accepts AEGCL's submission and approves Rs.

128.62 Crore and Rs. 130.33 Crore towards employee cost in the truing up for FY 2014-15 and FY 2015-16, respectively.

4.6.2 Repairs and Maintenance (R&M) Expenses

The Commission had approved R&M Expenses of Rs. 8.73 Crore for FY 2014-15 and Rs. 8.75 Crore for FY 2015-16 in the respective Tariff Orders, against which AEGCL has claimed Rs. 11.53 Crore each for FY 2014-15 and FY 2015-16, based on the Audited Accounts. 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.

The Commission is of the view that R&M expenses are necessary expenses, and while the actual R&M expenses are higher than the approved R&M expenses, the R&M expenses are not high in absolute terms considering the size of the transmission system. Hence, the Commission after prudence check, approves the R&M expenses of Rs. 11.53 Crore each for FY 2014-15 and FY 2015-16 after truing up.

4.6.3 Administrative and General (A&G) expenses

The Commission had approved A&G Expenses of Rs. 3.98 Crore for FY 2014-15 and Rs. 4.26 Crore for FY 2015-16 in the respective Tariff Orders, against which AEGCL has claimed A&G expenses of Rs. 5.14 Crore for FY 2014-15 and Rs. 7.29 crore for FY 2015-16 as per Audited Accounts.

The Commission is of the view that while the actual A&G expenses are higher than the approved A&G expenses, the A&G expenses are not high in absolute terms considering the size of the transmission system. Hence, the Commission, after prudence check, approves the A&G expenses of Rs. 5.14 Crore for FY 2014-15 and Rs. 7.29 Crore for FY 2015-16 after truing up.

4.6.4 SLDC Charges

AEGCL submitted the SLDC Charges of Rs. 2.54 Crore for FY 2014-15 and Rs. 1.68 Crore for FY 2015-16 against the approved charges of Rs. 2.12 Crore and Rs. 2.65

Crore, respectively. The SLDC Charges mainly comprise Employee expenses, R&M expenses and A&G Expenses.

The Commission, after prudence check, approves the SLDC Charges of Rs. 2.54 Crore for FY 2014-15 and Rs. 1.68 Crore for FY 2015-16 after truing up.

4.7 Depreciation

- 4.7.1 The Commission had approved the Depreciation of Rs. 13.80 Crore for FY 2014-15 and Rs. 12.45 Crore for FY 2015-16 in the respective Tariff Orders. AEGCL had submitted depreciation of Rs. 43.31 Crore for FY 2014-15 and Rs. 48.05 Crore for FY 2015-16 for the purpose of True-up.
- 4.7.2 As regards the depreciation on assets funded through grants for FY 2014-15 and FY 2015-16, AEGCL submitted that Grants received from Government of Assam (GoA) and Asian Development Bank (ADB) towards total investment of the project is in the nature of promoter's contribution and are being accounted for in compliance with Accounting Standards (AS) 12 notified by Ministry of Corporate Affairs. Accordingly, AEGCL has considered depreciation on such assets created out of promoter's contribution.
- 4.7.3 As regards the difference in Accumulated Depreciation submitted in the Petition vis-à-vis Accumulated Depreciation in the Audited Accounts for the respective years, AEGCL submitted that Accumulated Depreciation submitted in the Petition has been calculated as per Tariff Regulations, 2006, but in the Audited Accounts, it has been calculated as per the Companies Act.
- 4.7.4 The Commission has considered the opening GFA for FY 2014-15 as per the closing GFA value approved in True up of FY 2013-14 vide Tariff Order dated July 24, 2015. The Commission has computed depreciation as per scheduled rates specified in the Tariff Regulations, 2006.
- 4.7.5 As per Regulation 14 of the Tariff Regulations, 2006, 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 for the asset where depreciation in excess of 90% of the original cost of asset under different asset heads.
- 4.7.6 The issue of disallowing depreciation on grant funded assets has been settled several

times in earlier Tariff Orders by the Commission and the Hon'ble APTEL has also ruled that the Commission's decision to disallow depreciation on the assets funded out of grants is correct, and in accordance with the AERC Tariff Regulations, 2006.

4.7.7 Hence, in line with the approach adopted in the previous Orders and as specified in Regulation 14 of the Tariff Regulations, 2006, the Commission has not considered the depreciation on assets funded through grants, consumer contribution or capital subsidy, for FY 2014-15 and FY 2015-16.

4.7.8 The depreciation approved in the truing up for FY 2014-15 is given in the Table below:

Table 5: Depreciation approved for FY 2014-15 (Rs. Crore)

Sl. No.	Particulars	FY 2014-15			
		Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per Tariff Regulations, 2006
1	Land & Rights	21.18	0.25	-	-
2	Building	19.01	3.39	1.80%	0.07
3	Hydraulic	2.64	0.00	2.57%	0.07
4	Other Civil Works	8.51	2.11	1.80%	0.17
5	Plant & Machinery	550.76	37.70	3.60%	17.79
6	Lines & Cable Net work	650.98	40.03	2.57%	6.97
7	Vehicles	4.18	0.07	18.00%	0.28
8	Furniture & Fixtures	2.53	0.38	6.00%	0.06
9	Office Equipment	1.90	0.18	6.00%	0.11
10	Grand Total	1261.69	84.11		25.51
11	Asset excluding Land	1240.51	83.86	1.99%	
12	Opening Grants towards GFA				784.43
13	Closing Grants towards GFA				859.56
14	Less: Depreciation for Grants/ Consumer Contribution				16.35
15	Net Total				9.16

4.7.9 The depreciation approved in the truing up for FY 2015-16 is given in the Table below:

Table 6: Depreciation approved for FY 2015-16 (Rs. Crore)

Sl. No.	Particulars	FY 2015-16			
		Opening GFA	Addition during the year	Rate of Depreciation	Depreciation as per Tariff Regulations, 2006
1	Land & Rights	21.43	7.70	-	-
2	Building	22.40	5.08	1.80%	0.15
3	Hydraulic	2.64	0.00	2.57%	0.07
4	Other Civil Works	10.62	46.73	1.80%	0.61
5	Plant & Machinery	588.46	118.44	3.60%	20.60
6	Lines & Cable Net work	691.01	19.83	2.57%	7.74
7	Vehicles	4.25	0.15	18.00%	0.23
8	Furniture & Fixtures	2.91	0.68	6.00%	0.09
9	Office Equipment	2.08	0.18	6.00%	0.09
10	Grand Total	1345.80	198.79		29.57
11	Asset excluding Land	1324.37	191.09	2.08%	
12	Opening Grants towards GFA				859.56
13	Closing Grants towards GFA				964.05
14	Less: Depreciation for Grants/Consumer Contribution				18.99
15	Net Total				10.58

The Commission accordingly approves Depreciation of Rs. 9.16 Crore for FY 2014-15 and Rs. 10.58 Crore for FY 2015-16 after truing up.

4.8 Interest and Finance Charges

4.8.1 The Commission had approved Interest and Finance Charges of Rs. 14.05 crore for FY 2014-15 and Rs. 17.98 Crore for FY 2015-16 in the respective Tariff Orders, against which AEGCL has claimed Rs. 30.90 crore for FY 2014-15 and Rs. 38.97 Crore for FY 2015-16 based on Audited Accounts.

4.8.2 The Commission has examined the source-wise details of opening balance of loan, loan drawn during the year and loan repaid during the year, closing balance of loan, applicable interest rate and interest expenses for FY 2014-15 and FY 2015-16 as per Audited Accounts for FY 2014-15 and FY 2015-16.

4.8.3 For computation of interest expenses for FY 2014-15, the Commission has considered the Opening Balance of State Government Loan and ADB loan for FY 2014-15 equivalent to Closing Balance as approved for FY 2013-14 after True-up. The loan drawal during the year has been considered as per Audited Accounts. As regards State Government Loan, the Commission has not considered additional penal rate of interest and computed the interest based on average loan and 10% rate of interest. Since, interest expenses on ADB loan have been fully capitalized, the same has been considered. However, Commission has reduced the Interest capitalised for State Government Loan in the proportion of allowed interest.

4.8.4 The payment of penal interest and interest on General Provident Fund has not been approved, in accordance with the approach followed by the Commission in the previous Tariff Orders.

4.8.5 The Interest and Finance Charges approved by the Commission after true-up for FY 2014-15 is shown in the following Table:

Table 7: Approved Interest and Finance Charges for FY 2014-15 (Rs. Crore)

Sr. No.	Particulars	Opening Balance	Receipts	Repay-ments	Closing Balance	ROI	Interest Expenses
1	State Govt. Loan	234.11	59.26	-	293.37	10.00%	26.37
2	ADB Loan	66.23	11.28	-	77.51	10.37%	7.45
3	Total	300.34	70.54	-	370.88		33.82
4	Other Finance Charges						0.13
5	Less: Interest capitalised						18.02
6	Net Interest and finance charges						15.93

4.8.6 For computation of Interest expenses for FY 2015-16, the closing balance of State Government Loan and ADB Loan as approved in this Order for FY 2014-15 has been considered as opening balance for FY 2015-16. Similar principles as considered for FY 2014-15 have been adopted for computation of interest and finance charges for FY 2015-16.

4.8.7 The Interest and Finance Charges approved by the Commission after true-up for FY 2015-16 is shown in the following Table:

Table 8: Approved Interest and Finance Charges for FY 2015-16 (Rs. Crore)

Sr. No.	Particulars	Opening Balance	Receipts	Repay-ments	Closing Balance	ROI	Interest Expenses
1	State Govt. Loan	293.37	39.70	-	333.07	10.00%	31.32
2	ADB Loan	77.51	11.88	-	89.39	10.52%	8.78
3	Total	370.88	51.58	-	422.46		40.10
4	Other Finance Charges						0.11
5	Less: Interest capitalised						18.28
6	Net Interest and finance charges						21.93

4.8.8 The Interest and Finance Charges submitted by AEGCL and approved by the Commission for FY 2014-15 and FY 2015-16 are summarised in the following Table:

Table 9: Interest and Finance Charges for FY 2014-15 and FY 2015-16 (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	AEGCL Petition	Approved after true up	AEGCL Petition	Approved after true up
Interest on State Government Loans	31.51	26.37	35.80	31.32
Interest on ADB Loans	7.45	7.45	8.77	8.77
Interest on GPF	4.95	0.00	5.15	0.00
Penal Interest Charges	6.94	0.00	8.65	0.00
Bank Charges	0.13	0.13	0.11	0.11
Less: Interest Capitalised	20.08	18.02	19.63	18.28
Total	30.90	15.93	38.97	21.93

In view of the above, the Commission approves Interest and finance charges of Rs. 15.93 Crore for FY 2014-15 and Rs. 21.93 Crore for FY 2015-16 for trueing up.

4.9 Interest on Working Capital (IoWC)

4.9.1 The Commission had approved IoWC of Rs. 14.92 Crore for FY 2014-15 and Rs. 17.65 Crore for FY 2015-16 in the respective Tariff Orders, whereas AEGCL has claimed Rs.17.29 Crore for FY 2014-15 and Rs. 23.46 Crore for FY 2015-16, at the interest

rate of 14.75%.

- 4.9.2 As per the Tariff Regulations, 2006, the applicable interest rate should be Prime Lending Rate of State Bank of India as applicable on 1st April of the financial year for which Tariff is being determined. Accordingly, the Commission has trued up the normative interest on working capital based on the approved O&M Expenses, Receivables, etc., and at the SBI PLR of 14.75%, as detailed in the Table below:

Table 10: Approved Interest on Working Capital for FY 2014-15 and FY 2015-16 (Rs. Crore)

Particulars	FY 2014-15		FY 2015-16	
	AEGCL's Submission	Approved after true up	AEGCL's Submission	Approved after true up
One month O&M Expenses	12.32	12.32	12.57	12.57
Maintenance spares @1% GFA	13.46	13.04	15.45	14.45
Two Months receivables	91.47	77.09	131.06	89.65
Total Working Capital	117.25	102.44	159.07	116.67
Interest rate	14.75%	14.75%	14.75%	14.75%
Interest on Working Capital	17.29	15.11	23.46	17.21

Accordingly, the Commission approves Interest on Working Capital of Rs. 15.11 Crore for FY 2014-15 and Rs. 17.21 Crore for FY 2015-16 for the truing up.

4.10 Other Debits

- 4.10.1 AEGCL has claimed Other Debits of Rs.1.26 Crore for FY 2014-15 and Rs.0.19 Crore for FY 2015-16 based on the Audited Accounts.
- 4.10.2 The Commission has analysed the details and justification for Other Debits for FY 2014-15 and FY 2015-16 as submitted by AEGCL. The Commission notes that Other Debits includes the expenses towards loss of cash written off, loss on sale of scrap, loss of material by pilferage, loss to materials on account of flood, cyclone, etc. The Commission has disallowed the loss of cash written off for FY 2014-15 and loss of

materials by pilferage and loss on obsolescence of stores for FY 2015-16.

Accordingly, the Commission approves Other debits of Rs.1.25 Crore for FY 2014-15 and Rs.0.01 Crore for FY 2015-16.

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

4.11.1 In the Tariff Order dated November 21, 2014 and the Tariff Order dated July 24, 2015, the Commission had approved special charges on Bulk Supply Tariff at 20 Paise per unit amounting to Rs. 133.42 Crore for FY 2014-15 and Rs. 154.92 Crore for FY 2015-16. AEGCL has claimed Rs. 139.10 Crore and Rs. 151.42 Crore as BST for Pension Fund as per the Audited Statement of Accounts for FY 2014-15 and FY 2015-16 respectively.

The Commission approves the BST for Pension Fund (Special Charges for Terminal Benefits) of Rs. 139.10 Crore for FY 2014-15 and Rs. 151.42 Crore for FY 2015-16 as claimed by AEGCL.

4.12 Net Prior Period Expenses/(income)

4.12.1 AEGCL has claimed net prior period income of Rs. 20.04 Crore for FY 2014-15 and net prior period expenses of Rs.3.98 Crore for FY 2015-16 based on the Audited Accounts.

4.12.2 The Commission has analysed the year-wise details and justification for Net Prior period expenses/(income) for FY 2014-15 and FY 2015-16 as submitted by AEGCL. The Commission has considered the treatment of prior period items based on the treatment allowed to that particular item in the true-up of the year to which the expenses/(income) pertain.

4.12.3 The Commission has disallowed the prior period expenses/(income) towards depreciation and interest and finance charges since, the depreciation had not been allowed by the Commission based on audited accounts. The Commission in the past Orders had allowed depreciation and Interest and finance charges based on its own computations.

4.12.4 The Net prior period expenses/(income) submitted by AEGCL and allowed by the

Commission for FY 2014-15, are shown in the following Table:

Table 11: Net Prior Period expenses/(income) approved for FY 2014-15 (Rs. Crore)

Sr. No.	Particulars	AEGCL's Submission	Approved after Truing up
	Prior Period Expenses		
1	Transformer Oil related expenses/losses relating to prior period	0.005	0.005
2	Employee costs relating to prior period	0.40	0.40
3	Depreciation under provided in prior period	1.60	-
4	Other Expenses relating to prior period	1.05	1.05
5	Interest and other finance charges relating to prior period	5.29	-
6	Sub-total	8.34	1.45
	Prior Period Income		
7	Excess provision for depreciation in prior period	0.73	-
8	Interest income for prior period	3.12	3.12
9	Other Income relating to prior period	24.52	24.52
10	Sub-total	28.37	27.64
11	Net Prior Period Expenses/(Income)	(20.04)	(26.18)

4.12.5 The Net prior period expenses/(income) submitted by AEGCL and allowed by the Commission for FY 2015-16 are shown in the following Table:

Table 12: Net Prior Period expenses/(income) approved for FY 2015-16 (Rs. Crore)

Sr. No.	Particulars	Submitted by AEGCL	Approved after Truing up
	Prior Period Expenses		
1	Employee costs relating to prior periods	0.73	0.73
2	Depreciation under provided in prior period	4.94	-
3	Other Expenses relating to prior period	1.67	1.67
4	Interest and other finance charges relating to prior periods	0.14	-
6	Sub-total	7.47	2.40
	Prior Period Income		
7	Interest income for prior period	2.74	2.74
8	Other Income relating to prior period	0.75	0.75
10	Sub-total	3.49	3.49
11	Net Prior Period Expenses/(Income)	3.98	(1.09)

Accordingly, the Commission approves the Net Prior Period Income of Rs. 26.18 Crore for FY 2014-15 and Rs. 1.09 Crore for FY 2015-16.

4.13 Return on Equity

4.13.1 AEGCL has claimed the Return on Equity of Rs. 13.99 Crore each for FY 2014-15 and FY 2015-16 as approved by the Commission in the respective Tariff Orders. AEGCL has considered no equity addition during FY 2014-15 and FY 2015-16.

The Commission approves Return on Equity of Rs. 13.99 Crore each for FY 2014-15 and FY 2015-16 in accordance with Tariff Regulations, 2006, as claimed by AEGCL, as there has been no equity addition during the financial year.

4.14 Income Tax

4.14.1 AEGCL has not claimed any amount towards Income Tax as per the Audited Statement of Accounts for FY 2014-15 and FY 2015-16.

Therefore, the Commission approves the Income Tax as Nil in the truing up for FY 2014-15 and FY 2015-16 as per Audited Statement of Accounts for FY 2014-15 and FY 2015-16.

4.15 ARR after Truing Up of FY 2014-15 and FY 2015-16

4.15.1 Considering the above heads of expense and revenue as per the Audited Accounts for FY 2014-15 and after due prudence check, the net ARR and Revenue Gap/(Surplus) approved after true-up for FY 2014-15 is shown in the following Table:

Table 13: ARR approved after Truing up for FY 2014-15 (Rs. Crore)

Sr. No	Particulars	2014-15		
		Tariff Order	Proposed by AEGCL	Approved after truing up
1	PGCIL Charges	216.30	268.42	268.42
2	O&M expenses	141.66	145.29	145.29
a	Employee Expenses	128.95	128.62	128.62

Sr. No	Particulars	2014-15		
		Tariff Order	Proposed by AEGCL	Approved after truing up
b	R&M Expense	8.73	11.53	11.53
c	A&G Expense	3.98	5.14	5.14
3	SLDC Charges	2.12	2.54	2.54
4	BST for Pension Trust Fund	133.42	139.10	139.10
5	Depreciation	13.80	43.31	9.16
6	Interest and finance Charges	14.05	30.90	15.93
7	Interest on Working Capital	14.92	17.29	15.11
8	Income Tax	-	-	-
9	Net Prior Period Expenses	-	(20.04)	(26.18)
10	Other Debits	-	1.26	1.25
11	Return on Equity	13.99	13.99	13.99
12	Less: Non-tariff Income	64.73	93.24	93.24
13	Total ARR	485.53	548.82	491.37
14	Add: Gap/(Surplus) for FY 2011-12 and FY 2012-13	(23.01)	-	(23.01)
15	Net ARR	462.52	548.82	468.36
16	Revenue from Operations	462.52	462.52	462.52
17	Gap/(Surplus)	-	86.30	5.84

The Revenue Gap of Rs. 5.84 Crore approved after truing up for FY 2014-15, has been considered during the Control Period for recovery.

4.15.2 Considering the above heads of expense and revenue as per the Audited Accounts for FY 2015-16 and after due prudence check, the net ARR and Revenue Gap/(Surplus) for FY 2015-16 is shown in the following Table:

Table 14: ARR approved in the Truing up for FY 2015-16 (Rs. Crore.)

Sr. No.	Particulars	2015-16		
		Tariff order dated July 24, 2015	Proposed by AEGCL	Approved
1	PGCIL Charges	254.55	441.43	441.43
2	O&M expenses	151.91	149.16	149.15
a	Employee Expenses	138.90	130.34	130.33
b	R&M Expense	8.75	11.53	11.53

Sr. No.	Particulars	2015-16		
		Tariff order dated July 24, 2015	Proposed by AEGCL	Approved
c	A&G Expense	4.26	7.29	7.29
3	SLDC Charges	2.65	1.68	1.68
4	BST for Pension Trust Fund	154.92	151.42	151.42
5	Depreciation	12.45	48.05	10.58
6	Interest and finance Charges	17.98	38.97	21.93
7	Interest on Working Capital	17.65	23.46	17.21
8	Income Tax	-	-	-
9	Net Prior Period Expenses	-	3.98	(1.09)
10	Other Debits	-	0.19	0.01
11	Return on Equity	13.99	13.99	13.99
12	Less: Non-tariff Income	55.71	85.99	85.99
13	Total ARR	570.39	786.34	720.33
14	Add: Gap/(Surplus) for True-up for FY 2013-14	(32.46)	-	(32.46)
15	Net ARR	537.93	786.34	687.87
16	Revenue from Operations	537.93	537.92	537.92
17	Gap/(Surplus)	-	248.42	149.95

The Revenue Gap of Rs. 149.95 Crore approved in the truing up for FY 2015-16 has been considered during the Control Period for recovery.

The Commission has considered the recovery of Revenue Gap/(Surplus) arising out of Truing up for FY 2014-15 and FY 2015-16 separately in Chapter 6 of this Order.

5 ARR for MYT Control Period from FY 2016-17 to FY 2018-19

5.1 Introduction

5.1.1 This Chapter deals with the determination of Aggregate Revenue Requirement for the MYT Control Period from FY 2016-17 to FY 2018-19 in accordance with the provisions of MYT Regulations, 2015, submissions made by AEGCL and Business Plan Order dated September 1, 2016.

5.2 Transmission Loss

5.2.1 AEGCL has projected the Transmission Loss for FY 2016-17 to FY 2018-19, as detailed in the Table below:

Table 15: Transmission Loss as submitted by AEGCL for FY 2016-17 to FY 2018-19

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Energy Injected (MU)	9390.00	11395.00	13531.00
Energy Sent Out (MU)	9057.00	10998.00	13066.00
Transmission Loss (MU)	333.00	397.00	465.00
Transmission Loss (%)	3.54%	3.49%	3.44%

5.2.2 **The Commission in Business Plan Order dated September 1, 2016 has approved the Transmission Loss of 3.54% for FY 2016-17, 3.49% for FY 2017-18 and 3.44% for FY 2018-19.**

5.2.3 **The Commission has approved the same trajectory for Transmission loss for the Control Period.**

5.3 Transmission Availability

5.3.1 AEGCL has projected the Transmission Availability of 99.45% for FY 2016-17, 99.50% for FY 2017-18 and 99.50% for FY 2018-19.

5.3.2 Regulation 67 of the MYT Regulations, 2015 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 Regulation 71 of the MYT Regulations, 2015.

- 5.3.3 The Commission notes that AEGCL has projected the trajectory of Transmission Availability higher than Normative Transmission Availability as specified in MYT Regulations, 2015. 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, 2015.

5.4 Annual Transmission Charges for MYT Control Period

- 5.4.1 Regulation 62.10 of the MYT Regulations, 2015 specifies the components of Annual Transmission Charges as under:

“62.10 The annual transmission charges for each financial year of the Control Period shall provide for the recovery of the aggregate revenue requirement of the Transmission Licensee for the respective financial year of the Control Period, as reduced by the amount of non-tariff income and income from Other Business, as approved by the Commission and comprising the following:

Aggregate revenue requirement:

a) Return on Equity Capital;

b) Interest on Loan Capital;

c) Depreciation;

d) Operation and maintenance expenses;

e) Interest on working capital and deposits from Transmission System Users;

minus:

f) Non-tariff income; and

g) Income from Other Business, to the extent specified in these Regulations

Provided that in case of competitively awarded transmission system projects in pursuance of Section 63 of the Act and in accordance with guidelines for competitive bidding for transmission, the annual transmission charges shall be

as per the Annual Transmission Service Charges (TSC) quoted by such competitively awarded transmission projects.

62.11 The annual transmission charges of the Transmission Licensee shall be determined by the Commission on the basis of an application for determination of aggregate revenue requirement or application for adoption of annual transmission charges in case of competitively awarded transmission system project, as the case may be, made by the Transmission Licensee in accordance with Chapter 3 of these Regulations.” (emphasis added)

5.4.2 In line with the above provision, the Commission has determined the ARR for the Control Period from FY 2016-17 to FY 2018-19 as discussed below.

5.5 Operation and Maintenance Expenses

5.5.1 AEGCL submitted that O&M expenses for FY 2016-17 to FY 2018-19 have been computed on the basis of revised estimates for FY 2015-16 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:

5.5.2 Employee Expenses

AEGCL submitted that Employee expenses include salaries, bonus, other benefits like medical expense reimbursement, LTA, etc., and terminal benefits in the form of pension, gratuity, leave encashment, staff welfare, etc. AEGCL submitted that the employee expenses have been estimated considering trend of past year's employee expense, increase in dearness allowance, its merger and its impact on other allowances such as HRA, field allowances, PF, etc. AEGCL has considered the employee expenses during FY 2016-17 based on actual salaries paid during first six months plus estimate for the month of October 2016 to March 2017, with additional increase due to provision for Revision of Pay (ROP) 2016.

The employee expenses estimated for FY 2016-17 have been escalated by annual increase of 10% (6% on account of increase in dearness allowance and 4% on account of average annual increments) for calculating the employee expenses for FY 2017-18.

The estimated employee expenses for FY 2017-18 have been escalated by annual increase of 12% (8% on account of increase in dearness allowance and 4% on account of average annual increments) for calculating the employee expenses for FY 2018-19. The employee expenses projected by AEGCL is shown in the following Table:

Table 16: Employee Expenses projected by AEGCL (Rs. Crore)

Sr. No.	Particulars	FY2016-17	FY2017-18	FY2018-19
1	Salaries	65.91	72.50	81.20
2	Dearness Allowance	65.93	72.52	81.23
3	Other Allowances and Relief	9.24	10.16	11.38
4	Honorarium/Overtime	0.71	0.78	0.87
5	Bonus/Ex-gratia to Employees	0.20	0.22	0.25
6	Medical expenses reimbursement	0.33	0.36	0.41
7	Leave Travel Assistance	0.25	0.28	0.31
8	Earned Leave Encashment	7.75	8.53	9.55
9	Payment under Workman's Compensation and Gratuity	1.56	1.72	1.92
10	Staff Welfare expenses	0.02	0.02	0.02
11	Contribution to Terminal Benefits	23.23	25.55	28.62
	Total	175.13	192.64	215.76

5.5.3 R&M Expenses

AEGCL submitted that R&M expenses are directly related to age of the assets, and its wear and tear during the period. Considering past trends, the expenditure for FY 2016-17 to FY 2018-19 will increase due to presence of vintage assets, which require periodical and higher repairs, thus, these expenses are uncontrollable in nature. AEGCL submitted that for FY 2016-17, the actual expenses incurred during 6 months plus estimated for 6 months have been considered. The estimated R&M expenses for FY 2016-17 have been increased by 5% due to price escalation to arrive at the figure for FY 2017-18, which has been escalated by 5% to arrive at the figure for FY 2018-19. AEGCL projected R&M Expenses for the Control Period as shown in the following Table:

Table 17: R&M expenses projected by AEGCL (Rs. Crore)

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Plant & Machinery	7.09	7.44	7.82
2	Buildings	1.35	1.42	1.49

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
3	Civil works	0.83	0.87	0.92
4	Lines, Cable Networks	1.46	1.53	1.61
5	Vehicles	0.19	0.20	0.21
6	Furniture & Fixture	0.05	0.05	0.06
7	Office Equipment	0.55	0.58	0.61
	Total	11.52	12.10	12.70

5.5.4 A&G Expenses

AEGCL submitted that A&G expenses mainly comprise rents, telephone and other communication expenses, professional charges, conveyance and travelling expenses, etc. A&G expenses include administrative cost for payment of pension through SBI CPC under the head "Security/Service charges paid to outside Agencies". AEGCL submitted that for FY 2016-17, actual expenses incurred during 6 months plus estimated for 6 months have been considered. The estimated A&G expenses for FY 2016-17 have been increased by 5% due to price escalation to arrive at the figure for FY 2017-18, which has been escalated by 5% to arrive at the figure for FY 2018-19. AEGCL projected A&G Expenses for the Control Period as shown in the following Table:

Table 18: A&G expenses projected by AEGCL (Rs. Crore)

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Rent, Rates & Taxes	0.20	0.21	0.22
2	Insurance	0.07	0.07	0.08
3	Telephone, Postage, Telegram and Telex Charges	0.30	0.32	0.33
4	Legal Charges	0.09	0.09	0.10
5	Audit Fees, License fee	0.05	0.05	0.05
6	Other Professional Charges	0.12	0.13	0.13
7	Conveyance & Travel Charges including Vehicle Expenses	2.22	2.33	2.45
8	Security/Service paid to outside Agencies	0.25	1.20	1.30
9	Other Expenses	5.41	5.68	5.96
10	Miscellaneous Expenses	0.14	0.15	0.15
	Grand Total	8.85	10.23	10.78

Commission's Analysis

5.5.5 As regards the projection of O&M Expenses for the Control Period, Regulation 68.9 of MYT Regulations, 2015 specifies as under:

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

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

Where –

- *O&M_n – Operation and Maintenance expense for the nth year;*
- *EMP_n – Employee Costs for the nth year;*
- *R&M_n – Repair and Maintenance Costs for the nth year;*
- *A&G_n – Administrative and General Costs for the nth year;*

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

- *EMP_n = (EMP_{n-1}) x (1+G_n) x (CPI inflation)*
- *R&M_n = K x (GFA_{n-1}) x (WPI inflation) and*
- *A&G_n = (A&G_{n-1}) x (WPI inflation) + Provision*

Where –

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

- GFA_{n-1} - Gross Fixed Asset of the transmission licensee for the $n-1$ th year;
- G_n is a growth factor for the n th year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, and any other factor that the Commission feels appropriate."

5.5.6 AEGCL was asked to submit the computation of O&M expenses in accordance with Regulation 68 of MYT Regulations, 2015. However, AEGCL expressed its difficulty for doing the computation of O&M Expenses citing the reason that the "K" and "Gn" factors are not available.

5.5.7 The Commission has computed the O&M Expenses for the Control Period on normative basis as per Regulation 68 of the MYT Regulations, 2015. 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 Regulation 13 of MYT Regulations, 2015 at the time of truing up for respective year.

5.5.8 As regards Revision of Pay (ROP), AEGCL was asked to submit the documentary evidence and the basis for increasing the employee expenses for FY 2016-17 by Rs.34.46 crore. AEGCL submitted that Employee expenses for FY 2016-17 has been increased by Rs.34.46 Crore due to provision for ROP, 2016, calculated by increasing employee expenses for first 6 months of FY 2016-17 (Rs.70.16 Crore) by 23.5%, as per hike in salaries announced by the Seventh Pay Commission for Central Government employees and by increasing the employee expenses for next 6 months of FY 2016-17 by 25.5%, with additional 2% due to increase in Dearness Allowances.

5.5.9 In this regard, the Commission notes that the implementation of Seventh Pay Commission has not been started in AEGCL. Hence, the Commission has not considered any revision of pay on this account. AEGCL may submit actual impact on account of revision of pay, as and when implemented, along with detailed justification and documentary evidences on basis of Audited Accounts. The Commission may take an appropriate view at time of truing up for the respective year.

5.5.10 For computation of employee expenses for Control Period, the Commission has adopted the following approach:

- a) The employee expenses approved after True-up for FY 2015-16 have been considered as base expenses.

- b) CPI inflation has been computed as average increase of CPI index for the period from FY 2013-14 to FY 2015-16, which works out to 7.21%
- c) Considering the expansion of transmission network over the Control Period, growth factor of 1% has been considered.
- d) Employee expenses for SLDC have been considered same as submitted by AEGCL. Employee expenses for Transmission has been derived after deducting the employee expenses for SLDC from normative employee expenses.

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

Table 19: Approved Employee Expenses for Control Period (Rs. Crore)

Particulars		FY 2016-17	FY 2017-18	FY 2018-19
Employee Expenses for Previous Year	EMP_{n-1}	131.85	142.76	154.58
Growth Factor	G_n	1%	1%	1%
CPI Inflation	CPI	7.21%	7.21%	7.21%
Employee Expenses		142.76	154.58	167.38
Employee Expenses - Transmission		140.65	152.25	164.78
Employee Expenses -SLDC		2.11	2.33	2.60

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

- a) WPI inflation has been computed as average increase of WPI index for period from FY 2013-14 to FY 2015-16, which works out to 1.83%
- 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 2011-12 to FY 2015-16. The K-factor for the Control Period has been considered as average of K-factor computed for FY 2011-12 to FY 2015-16. The Commission has computed K-factor as shown in the following Table:

Table 20: Computation of K-factor for Control Period (Rs. Crore)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
R&M Expenses (a)	18.72	9.99	9.66	12.34	11.55
Opening GFA	1,057.71	1,180.20	1,201.42	1,261.69	1,345.80

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Closing GFA	1,180.20	1,201.42	1,261.69	1,345.80	1,544.59
Average GFA (b)	1,118.96	1,190.81	1,231.55	1,303.75	1,445.20
K-factor (a/b)	1.67%	0.84%	0.78%	0.95%	0.80%
K-factor for Control Period	1.01%				

- 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) R&M expenses for SLDC have been considered same as submitted by AEGCL. R&M expenses for Transmission has been derived after deducting R&M expenses for SLDC from normative R&M expenses.

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

Table 21: Approved R&M Expenses for Control Period (Rs. Crore)

Particulars		FY 2016-17	FY 2017-18	FY 2018-19
Opening GFA for previous year		1,345.80	1,544.59	1,626.95
Closing GFA for previous year		1,544.59	1,626.95	1,930.74
Average GFA for previous year	GFA _{n-1}	1,445.20	1,585.77	1,778.84
K Factor	K	1.01%	1.01%	1.01%
WPI Inflation	WPI	1.83%	1.83%	1.83%
R&M Expenses		14.84	16.28	18.27
R&M Expenses – Transmission		14.82	16.26	18.25
R&M Expenses- SLDC		0.02	0.02	0.02

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

- a) The A&G expenses approved after True-up for FY 2015-16 have been considered as base expenses.
- b) WPI inflation has been computed as average increase of WPI index for period from FY 2013-14 to FY 2015-16, which works out to 1.83%
- c) The Commission has not considered any provision for initiatives or other one-time expenses for A&G expenses, as AEGCL has not proposed the same.

- d) A&G expenses for SLDC have been considered same as submitted by AEGCL. A&G expenses for Transmission have been derived after deducting the A&G expenses for SLDC from normative A&G expenses.

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

Table 22: Approved A&G Expenses for Control Period (Rs. Crore)

Particulars		FY 2016-17	FY 2017-18	FY 2018-19
A&G Expenses for Previous Year	A&G _{n-1}	7.43	7.57	7.70
WPI Inflation	WPI	1.83%	1.83%	1.83%
Provision	Provision	0%	0%	0%
A&G Expenses		7.57	7.70	7.84
A&G Expenses -Transmission		7.33	7.45	7.58
A&G Expenses -SLDC		0.24	0.25	0.26

5.6 Capital Expenditure and Capitalisation

5.6.1 AEGCL submitted that it has projected the Capital Expenditure for FY 2016-17 to FY 2018-19 against different schemes of the Government of India and the Government of Assam as approved by the Commission in the Business Plan Order dated September 1, 2016. AEGCL submitted the scheme wise details including type of work, nature of work, cost of works, phasing of capital expenditure.

5.6.2 The funding of Capital Expenditure is envisaged through various sources categorized under the headings Grants and Loans. AEGCL submitted that the grants have been considered based on the present available budgeted figure. The capital expenditure and its funding as submitted by AEGCL are shown in the following Table:

Table 23: Capital Expenditure and Capitalisation submitted by AEGCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Capital Expenditure	388.47	307.50	1076.62
Capitalisation	388.47	307.50	1076.62
Funding			
Grant	260.00	223.11	699.22
Equity	48.23	74.02	326.94
Debt	80.24	10.37	50.46

Commission's Analysis

- 5.6.3 The Commission notes that AEGCL has submitted the scheme-wise capital expenditure as provisionally approved by the Commission in Business Plan Order dated September 1, 2016. The Commission observes that AEGCL has considered the capitalisation equal to capital expenditure as approved in Business Plan Order, which was duly corrected by AEGCL in subsequent submission.
- 5.6.4 The Commission while provisionally approving the capital investment plan in Business Plan Order dated September 1, 2016 held as under:

*“3.2.18.6 The Commission in-principle approves the provisional Capital Investment against new schemes for the Control Period, as detailed above. **AEGCL may re-asses the timelines and priorities of various schemes. The Commission directs AEGCL to submit the revised Capital Expenditure and Capitalisation in its MYT Petition, if considered necessary, based on updated status and the tie-up of funds for undertaking the capital expenditure.** The Commission will approve the revised Capital Expenditure for such schemes in the MYT Order for the Control Period based on submissions made by AEGCL **and justification made therein.** Further, the Commission directs AEGCL to separately project the capitalisation for each year of the Control Period based on the Capital Works in Progress, capital expenditure proposed to be undertaken during the year, and the schemes proposed to achieve completion during each year, along with its MYT Petition.*

*3.2.18.7 **The Commission further directs AEGCL to take prior approval of the Commission in case of any addition and/or deletion of schemes or any change in funding pattern of schemes approved in this Order.** AEGCL shall also take prior approval of the Commission in case of any emergency works, apart from the works approved in this Order, to be carried out during the Control Period.*

3.2.18.8 The Commission notes that AEGCL has proposed the Capital Investment in line with the 'Power for All' Roadmap. In the 'Power for All' document, capital investment proposed is Rs. 416 Crore in FY 2015-16, Rs. 1119 Crore in FY 2016-17, Rs. 2409 Crore in FY 2017-18, and Rs. 1453 Crore in FY 2018-19 for various projects like TDF, NLCPR, NERPSIP Tranche 1 & 2, State Plan, etc. These investments were planned based on actual data and

realistic position as available till FY 2014-15. In the Business Plan Petition, AEGCL has submitted the Capital Investment after assessing the realistic position till FY 2015-16 and taking into account changes subsequent to the 'Power for All' roadmap. However, AEGCL stated that the objective of "Power for All" will be achieved by the proposed CAPEX. " (emphasis added)

5.6.5 During the TVS, the Commission asked AEGCL to submit revised scheme-wise capital expenditure and capitalisation, along with funding details based on latest status of implementation of schemes, approvals received, funds arranged, orders placed, work commencement, timelines committed by contractor, etc. In reply, AEGCL has submitted the capital expenditure, capitalisation and funding details as approved by the Commission in the Business Plan Order. AEGCL has not revised the scheme-wise capital expenditure and capitalisation based on latest status.

5.6.6 Since, AEGCL has not submitted the latest status of schemes, the Commission has obtained the information regarding funding and implementation of schemes from the public documents available. The Commission has approved capital expenditure and capitalisation based on information regarding latest status of works and past trends of capital expenditure of AEGCL. The Commission notes that in past years, the capital expenditure and capitalisation actually incurred by AEGCL were lower compared to projections made for the Control Period as shown in the following Table:

Table 24: Capital Expenditure approved for AEGCL in past Orders (Rs. Crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Capital Expenditure approved in MYT Tariff Order dated November 21, 2013	255.96	272.30	1248.93	429.83
Capital Expenditure approved in respective Tariff Orders	-	-	263.57	581.14
Actual Capital Expenditure	424.69	201.72	184.19	263.94
Actual Capitalisation	21.22	60.26	84.11	198.79

5.6.7 Considering the past trends of capital expenditure, the Commission notes that AEGCL has deferred the capital expenditure allowed by the Commission. The actual capital expenditure incurred in FY 2015-16 is only around 50% of the capital expenditure allowed by the Commission. This remaining 50% of capital expenditure for FY 2015-16 is likely to be implemented in FY 2016-17, but this would further delay the

implementation of schemes planned during FY 2016-17. Considering this, the Commission has considered deferment of 50% of capital expenditure for on-going schemes for the Control Period. Further, since, FY 2016-17 is almost over and AEGCL is not in position to provide the status of implementation of schemes, the Commission has deferred the capital expenditure towards new schemes proposed during the Control Period by one year.

- 5.6.8 Accordingly, based on the scheme-wise analysis, the Capital Expenditure and Capitalisation approved by the Commission for the Control Period is shown in the following Table:

Table 25: Capital Expenditure and capitalisation approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Opening CWIP	921.72	1,024.52	1,013.29
Capital Expenditure	185.16	292.56	220.17
Capitalisation	82.36	303.79	237.99
Closing CWIP	1,024.52	1,013.29	995.47

- 5.6.9 The Commission clarifies that the approach adopted by the Commission does not bar AEGCL from implementing the schemes as approved in Business Plan Order dated September 1, 2016. AEGCL should make its best efforts to incur the capital expenditure provisionally approved in Business Plan order and envisaged in Power for All document.
- 5.6.10 As regards the funding of capitalisation, the Commission has considered the scheme-wise funding as provisionally approved in Business Plan Order dated September, 1 2016. The Commission has computed normative funding of estimated capitalised works as per the provisions of MYT Regulations, 2015, which have been considered as input for the determination of Tariff. The grant considered against each project has been excluded for the purpose of debt:equity ratio. The Commission has considered the actual equity proposed by AEGCL subject to maximum of 30% of estimated capital cost of the project, after reducing the amount funded by grants. Further, in many cases, the equity considered by AEGCL is much higher than the normative 30% of capitalisation, after reducing the grant component. However, the Commission has restricted the equity component to maximum of 30% of amount of capitalised works, after reducing the grant component. The balance amount has been provisionally

approved as funded by loans.

- 5.6.11 The funding of capitalised works, based on scheme-wise analysis, as approved by the Commission is shown in the following Table:

Table 26: Funding of capitalised works approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Grant	16.33	201.44	197.73
Equity	0.00	6.74	6.95
Debt	66.03	95.61	33.31
Total Capitalisation	82.36	303.79	237.99

5.7 Depreciation

- 5.7.1 AEGCL submitted that the Gross Fixed Assets and Depreciation from FY 2016-17 to FY 2018-19 have been computed as per MYT Regulations, 2015. AEGCL submitted that depreciation has been calculated taking into consideration the opening balance of assets and the provisional capitalization. The addition of assets during FY 2016-17 to FY 2018-19 have been projected considering the capital expenditure plan for FY 2016-17 to FY 2018-19 provisionally approved by the Commission. The closing Gross Block of Fixed Assets as per statutory Audited Accounts of AEGCL for FY 2015-16 have been considered as the opening balance of assets for FY 2016-17. Depreciation on the assets added during the year has been calculated for 180 days assuming the date of commissioning of the assets as middle of the Financial Year. AEGCL has projected depreciation of Rs. 88.36 Crore for FY 2016-17, Rs. 106.77 Crore for FY 2017-18 and Rs. 142.99 Crore for FY 2018-19.

Commission's Analysis

- 5.7.2 For computation of depreciation, the Commission has considered the closing GFA for FY 2015-16 as approved in this Order as the Opening GFA for FY 2016-17. 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, 2015.
- 5.7.3 As per Regulation 33.2 of the MYT Regulations, 2015, 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.

5.7.4 As regards depreciation on assets funded through grants, AEGCL has re-iterated its earlier submission that Grants received from GoA and ADB towards total investment of the project is in the nature of promoter's contribution and are being accounted for in compliance with Accounting Standards (AS) 12 notified by Ministry of Corporate Affairs (MCA) and accordingly depreciation has been provided on those assets. AEGCL has not provided any computation of depreciation without considering the depreciation on assets funded through grants, which is in accordance with MYT Regulations, 2015. The Commission has not considered depreciation on assets funded through grants in accordance with Regulation 31 and 33 of MYT Regulations, 2015.

5.7.5 **In view of the above, the Commission has approved depreciation for the period from FY 2016-17 to FY 2018-19 as per MYT Regulations, 2015, as given in the Tables below:**

Table 27: Depreciation approved for FY 2016-17 (Rs. Crore)

Sl. No.	Particulars	FY 2016-17			
		Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2015
1	Land & Rights	29.13			-
2	Building	27.48		3.34%	0.19
3	Hydraulic	2.64		5.28%	0.07
4	Other Civil Works	57.35		3.34%	1.03
5	Plant & Machinery	706.90	61.18	5.28%	24.35
6	Lines & Cable Net work	710.84	21.18	5.28%	8.55
7	Vehicles	4.40		9.50%	0.15
8	Furniture & Fixtures	3.59		6.33%	0.11
9	Office Equipment	2.26		6.33%	0.09
10	Grand Total	1544.59	82.36		34.55
11	Asset excluding Land	1515.46	82.36	2.22%	
12	Less: Depreciation for Grants/ Consumer Contribution				21.58
13	Net Depreciation				12.97

Table 28: Depreciation approved for FY 2017-18 (Rs. Crore)

Sl. No.	Particulars	FY 2017-18			
		Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2015
1	Land & Rights	29.13			-
2	Building	27.48		3.34%	0.19
3	Hydraulic	2.64		5.28%	0.07
4	Other Civil Works	57.35		3.34%	1.03
5	Plant & Machinery	768.08	244.22	5.28%	32.41
6	Lines & Cable Net work	732.02	59.57	5.28%	10.68
7	Vehicles	4.40		9.50%	0.07
8	Furniture & Fixtures	3.59		6.33%	0.11
9	Office Equipment	2.26		6.33%	0.09
10	Grand Total	1626.95	303.79		44.66
11	Asset excluding Land	1597.82	303.79	2.55%	
12	Less: Depreciation for Grants/Consumer Contribution				27.60
13	Net Depreciation				17.07

Table 29: Depreciation approved for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	FY 2018-19			
		Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2015
1	Land & Rights	29.13			-
2	Building	27.48		3.34%	0.19
3	Hydraulic	2.64		5.28%	0.04
4	Other Civil Works	57.35		3.34%	1.03
5	Plant & Machinery	1012.30	143.20	5.28%	42.64
6	Lines & Cable Net work	791.59	94.78	5.28%	14.76
7	Vehicles	4.40		9.50%	0.04
8	Furniture & Fixtures	3.59		6.33%	0.11
9	Office Equipment	2.26		6.33%	0.09
10	Grand Total	1930.74	237.99		58.90
11	Asset excluding Land	1901.61	237.99	2.92%	

Sl. No.	Particulars	FY 2018-19			
		Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2015
12	Less: Depreciation for Grants/Consumer Contribution				37.33
13	Net Depreciation				21.57

5.8 Interest on Loan Capital

5.8.1 AEGCL submitted that the interest expenses on account of long-term loans depends on the outstanding loan, repayments, and prevailing interest rates on the outstanding loans. The projected capital expenditure and the funding of the same also have a major bearing on the long-term interest expenditure. AEGCL has considered the opening balance of loan for FY 2016-17 as Rs. 354.37 Crore (as per statutory audited Annual Accounts of AEGCL for FY 2015-16). The normative loan addition during FY 2016-17 to FY 2018-19 is computed as per the Capital Investment Plan. The repayment of loan to the tune of 1/10th portion becomes due in every Financial Year. AEGCL added that the interest on the loans has been computed at interest rate of 10.00% on the State Government Loans, 10.50% on Loans taken from Financial Institutions and 2.75% is rate of penal interest in the event of default in repayment of instalments of principal or interest. The Interest and Finance Charges for FY 2016-17 to 2018-19 as projected by AEGCL are shown in the Table below:

Table 30: Projected Interest and Finance charges (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Interest on State Government Loans	36.77	38.09	38.53
Penal Interest	0.00	0.00	0.00
Interest on ADB Loan	9.39	9.49	11.56
Interest on Central Govt. Loan	3.04	6.19	6.80
Total Interest on Loans	49.20	53.77	56.89
Bank Charges	0.11	0.11	0.11
Interest on General Provident Fund	5.24	5.10	4.95
Total Interest & Finance Charges	54.55	58.98	61.95
Less: Interest Capitalized	15.78	18.21	18.36
Total	38.77	40.77	43.59

Commission's Analysis

- 5.8.2 The Commission notes that Interest on loan capital for the Control Period is required to be allowed on normative basis as per Regulation 35 of MYT Regulations, 2015.
- 5.8.3 As per the above said Regulation, normative loan outstanding as on April 1, 2016, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2016, from the gross normative loan. Accordingly, the Commission has computed the normative loan outstanding as on April 1, 2016 as shown in the following Table:

Table 31: Computation of Normative loan outstanding as on April 1, 2016 (Rs. Crore)

Particulars	As on April 1, 2016
Gross Fixed Assets (a)	1544.59
Gross Fixed Assets excluding Land (b)	1515.47
Opening CWIP (c)	921.72
Grant (CWIP + Assets) (d)	1550.39
Grant towards GFA (e=d*b/(b+c))	964.05
Equity (f)	99.93
Gross Normative Loan (g=a-e-f)	480.61
Less: Cumulative repayment (net depreciation, excluding the depreciation for assets funded through grants, approved by the Commission in True-up Orders) (h)	603.30
Net Normative loan (i=g-h)	(122.69)
Net Normative loan considered for MYT Control Period	0.00

- 5.8.4 The Commission has considered the opening net normative loan as on April 1, 2016 as Nil as shown in the above Table. 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.
- 5.8.5 As per MYT Regulations, 2015, weighted average rate of Interest shall be computed based on outstanding loan as on April 1, 2016. The Commission sought details of outstanding loans as on April 1, 2016 along with documentary evidences. The Commission notes that ADB loan of Rs. 89.39 Crore at interest rate of 10.50% and State Government loan of Rs. 354.37 Crore at weighted average Interest rate of 10.12% are outstanding as on April 1, 2016. Accordingly, weighted average interest

rate has been computed as 10.19% for computation of Interest on loan capital.

5.8.6 The interest on loan capital as approved by the Commission for the Control Period is shown in the following Table:

Table 32: Approved Interest on Loan Capital (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Net Normative Opening Loan	0.00	53.05	131.60
Addition of normative loan during the year	66.03	95.61	33.31
Normative Repayment during the year	12.97	17.07	21.57
Net Normative Closing Loan	53.05	131.60	143.34
Interest Rate	10.19%	10.19%	10.19%
Interest Expenses	2.70	9.41	14.01

5.9 Return on Equity

5.9.1 AEGCL submitted that Return on Equity has been computed @ 15.50% as specified in Regulation 34 of the MYT Regulations, 2015. Return on Equity has been computed @ 15.50% on closing balance of equity based upon the opening balance of equity and normative additions during the years as shown in the following Table:

Table 33: Return on Equity as submitted by AEGCL (Rs. Crore)

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Opening Equity Capital	99.93	148.20	222.22
2	Equity addition during the year	48.27	74.02	326.94
3	Closing Equity	148.20	222.22	549.16
4	Average Equity	124.07	185.21	385.69
5	Rate of Return on equity	15.50%	15.50%	15.50%
6	Return on Equity	22.97	34.44	85.12

Commission's Analysis

5.9.2 The Commission has approved the Return on Equity in accordance with Regulation 34 of the MYT Regulations, 2015. The Commission has considered the addition of equity equivalent to equity portion of capitalised works as approved in this Order. Therefore, the approved Return on Equity at 15.50% is shown in the Table below:

Table 34: Return on Equity approved by the Commission (Rs. Crore)

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Opening Equity Capital	99.93	99.93	106.67
2	Equity addition during the year	-	6.74	6.95
3	Closing Equity	99.93	106.67	113.61
5	Rate of Return on equity	15.50%	15.50%	15.50%
6	Return on Equity	15.49	16.01	17.07

5.10 Interest on Working Capital

5.10.1 AEGCL submitted that Interest on Working Capital has been calculated on normative basis as per the provisions of MYT Regulations, 2015. The rate of interest provided for the working capital is State Bank of India Base Rate plus 350 basis points. AEGCL has claimed Interest on Working Capital as shown in the Table below:

Table 35: Interest on Working Capital as submitted by AEGCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
O&M expenses for 1 month	16.29	17.91	19.94
Maintenance spares @ 15% of O&M Expenses	29.32	32.25	35.89
Receivables for two months	174.52	264.21	264.73
Total Working Capital	220.14	314.37	320.56
Rate of Interest	12.80%	12.80%	12.80%
Interest on Working Capital	28.18	40.24	41.03

Commission's Analysis

5.10.2 The Commission has computed Interest on Working Capital in accordance with Regulation 37.2 of the MYT Regulations, 2015. The rate of Interest has been considered equal to State Bank of India Base Rate as on 1st April of the respective year plus 350 basis points i.e., 12.80%

5.10.3 Interest on working capital as approved by the Commission for the Control Period is shown in the following Table:

Table 36: Interest on Working Capital as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	O&M expenses for 1 month	13.57	14.66	15.88
2	Maintenance spares @ 15% of O&M Expenses	24.42	26.40	28.59
3	Receivables for two months	137.40	145.87	161.91
4	Total Working Capital	175.39	186.93	206.39
5	Rate of Interest	12.80%	12.80%	12.80%
6	Interest on Working Capital	22.45	23.93	26.42

5.11 PGCIL Charges

5.11.1 AEGCL submitted that Transmission Charges payable to PGCIL for the Control Period are based on Average Energy Peak Load (MW), since the calculation of Energy bill as per POC is based on the Maximum Peak Load (MW) of the month with proportionate Asset allocation of the State for the month. AEGCL has considered the average energy peak load projection based on the data submitted by APDCL in its MYT Tariff Petition. The year-wise details of PGCIL Transmission Charges are shown in the Table below:

Table 37: PGCIL Charges as submitted by AEGCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
PGCIL Charges	564.57	666.24	846.12

Commission Analysis

5.11.2 For projection of PGCIL Charges, the Commission has considered the actual PGCIL charges paid in H1 of FY 2016-17 based on actual bills submitted by AEGCL. PGCIL charges for H2 of FY 2016-17 have been considered equivalent to average of monthly charges paid in H1 of FY 2016-17, excepting the outlier PGCIL Charges of Rs. 76.02 Crore for June 2016, which are almost double the monthly charges.

5.11.3 PGCIL Charges estimated for the month of March 2017 have been escalated based on the estimated increase in maximum contracted capacity projected by AEGCL, to arrive at the PGCIL Charges for FY 2017-18 and FY 2018-19.

5.11.4 The PGCIL Charges approved by the Commission for the Control Period are shown in the following Table:

Table 38: PGCIL Charges as approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
PGCIL Charges	529.77	534.55	582.67

5.12 Provision of Income Tax

5.12.1 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.

5.13 Other Debits

AEGCL has considered Other Debits of Rs. 19 Lakh for each year during the Control Period.

Commission's Analysis

The Commission, at this stage, has not considered any other Debits as submitted by AEGCL. AEGCL may submit the actual Other Debits for each year of the Control Period. The Commission may take an appropriate view on AEGCL's claim at the time of truing up for each year of the Control Period after prudence check.

5.14 BST for Pension Fund

5.14.1 AEGCL submitted that the Commission had approved special charge on Bulk Supply Tariff @ 20 paise per unit of energy wheeled in the Tariff Order dated November 21, 2014. Accordingly, AEGCL computed the Special Charge on BST @ 20 paise per unit on projected energy wheeled for the period FY 2016-17 to FY 2018-19 as shown in following Table:

Table 39: BST for Pension Fund as submitted by AEGCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
BST for Pension Fund	181.14	219.96	261.32

Commission's Analysis

5.14.2 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 40: BST for Pension Fund as approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Energy transmitted to APDCL (MU)	8,086.88	9,076.22	10,101.00
BST for Pension Fund at 20 paise per unit	161.74	181.52	202.02

5.15 Non-Tariff Income

5.15.1 AEGCL has submitted Non-Tariff income for the Control Period as detailed in the Table below:

Table 41: Non-Tariff income as submitted by AEGCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Income from Investments	25.51	23.04	21.20
Other Non-Tariff Income	49.73	50.00	50.00
Total	75.24	73.04	71.20

Commission's Analysis

5.15.2 As regards projection of reducing interest on fixed deposits under Non-Tariff Income for each year of the Control Period, AEGCL submitted that fixed deposits are shown as withdrawn from time to time considering the schedule of liquidations of dues for capital expenditure.

5.15.3 For the purpose of projection for Control Period, the Commission approves the Non-Tariff Income of Rs. 85.99 Crore for each year of the Control Period based on Non-tariff income approved for FY 2015-16. The actual Non-Tariff income shall be considered at time of truing up for each year of the Control Period, subject to prudence check.

5.16 Summary of ARR for Control Period from FY 2016-17 to FY 2018-19

5.16.1 As discussed in earlier paragraphs, the Commission has approved the expenses based on the principles specifies in MYT Regulations, 2015. The summary of ARR as submitted by AEGCL and as approved by the Commission is given in the Table below:

Table 42: ARR for Control Period from FY 2016-17 to FY 2018-19 as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
		Proposed by AEGCL	Approved	Proposed by AEGCL	Approved	Proposed by AEGCL	Approved
1	PGCIL Charges	564.57	529.77	666.24	534.55	846.12	582.67
2	O&M Expenses	195.50	162.80	214.97	175.97	239.24	190.61
2.1	Employee Expenses	175.13	140.65	192.64	152.25	215.76	164.78
2.2	R&M Expenses	11.52	14.82	12.10	16.26	12.70	18.25
2.3	A&G Expenses	8.85	7.33	10.23	7.45	10.78	7.58
3	SLDC Charges\$	2.37	2.37	2.60	2.60	2.88	2.88
4	BST for Pension Trust Fund	181.14	161.74	219.96	181.52	261.32	202.02
5	Depreciation	88.36	12.97	106.77	17.07	142.99	21.57
6	Interest on Loan Capital	54.55	2.70	58.98	9.41	61.95	14.01
7	Interest on Working Capital	28.18	22.45	40.24	23.92	41.03	26.41
8	Income tax	-	-	-	-	-	-
9	Other Debits	0.19	-	0.19	-	0.19	-
10	Return on Equity	22.97	15.49	34.44	16.01	85.12	17.07
11	Less: Non-Tariff income	75.24	85.99	73.04	85.99	71.20	85.99
12	Less: Expenses Capitalized	15.78	-	18.21	-	18.36	-
13	Aggregate Revenue Requirement	1,044.43	824.30	1250.55	875.06	1,588.40	971.25

\$ - SLDC Charges have already been included in O&M Expenses in AEGCL's submission. However, it has been separated in approved values.

6 Transmission Tariff for FY 2017-18

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

6.1.1 AEGCL has proposed the Net ARR including the past Revenue Gap/(Surplus) for the Control Period as shown in the following Table:

Table 43: Net ARR for recovery as submitted by AEGCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Aggregate Revenue Requirement	1,044.43	1,250.55	1,588.40
Interest Expenses on State Government loan approved by the Commission in the Review Order dated April 9, 2015	2.69	-	-
Revenue Gap after truing up for FY 2014-15	-	86.30	-
Revenue Gap after truing up for FY 2015-16	-	248.41	-
Net ARR	1047.12	1585.27	1588.40
Per unit Charges for PGCIL	0.64	0.84	0.67
Per unit charges of AEGCL excluding PGCIL Charges	0.52	0.60	0.55
Total Per Unit Charges	1.16	1.44	1.22

Commission's Analysis

6.1.2 For computation of Net ARR for recovery, the Commission has considered the Revenue Gap/(Surplus) after truing up for FY 2014-15 and FY 2015-16 approved in this Order along with carrying cost as shown in the following Table:

Table 44: Cumulative Revenue (Gap)/Surplus approved till end of FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	ROI (%)	Rs. Crore
1	Truing up for FY 2014-15		
	Stand-alone Revenue gap/(surplus) for FY 2014-15		5.84
	Carrying Cost for FY 2015-16	14.45%	0.84
	Carrying Cost for FY 2016-17	12.80%	0.75
	Grand Total		7.43

Sr. No.	Particulars	ROI (%)	Rs. Crore
2	Truing up for FY 2015-16		
	Stand-alone Revenue gap/(surplus) for FY 2015-16		149.95
	Carrying Cost for FY 2016-17	12.80%	19.19
	Grand Total		169.15

6.1.3 The Commission has considered the recovery of these above said cumulative Revenue Gaps for FY 2014-15 and FY 2015-16 in FY 2017-18.

6.1.4 Since, FY 2016-17 is almost over, AEGCL has been billing APDCL for FY 2016-17 as per tariff approved by the Commission for FY 2015-16 in Order dated July 24, 2015. In the present Order, since the implementation of MYT Order has been delayed by a year, the Commission has determined the tariff for FY 2017-18. Hence, in accordance with Regulation 10.5 of MYT Regulations, 2015, Annual Performance Review of FY 2016-17 ought to be carried out.

6.1.5 The Commission has considered the impact of Rs. 2.69 Crore allowed in the Review Order dated April 9, 2015 in FY 2016-17. Accordingly, the Commission has determined the Revenue Gap/(Surplus) for FY 2016-17 on account of Annual Performance Review as shown in the following Table:

Table 45: Revenue (Gap)/Surplus for FY 2016-17 as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	FY 2016-17
1	Aggregate Revenue Requirement (excluding SLDC Charges)	821.93
2	Interest Expenses on State Government loan approved by the Commission in the Review Order dated April 9, 2015	2.69
3	Less: Revenue from Transmission Charges	537.92
4	Revenue Gap/(surplus)	286.70

6.1.6 The Commission notes that no tariff has been approved by the Commission for FY 2016-17. AEGCL has billed APDCL at the tariff approved in the Order dated July 24, 2015, which is lower than the ARR approved for FY 2016-17 in this Order. Hence, it is

required to pass on part of the Revenue Gap for FY 2016-17 as a special case. The Commission has considered half of the estimated Revenue Gap for FY 2016-17, for recovery in FY 2017-18. No carrying cost has been considered on Revenue Gap for FY 2016-17, as it is not final true up.

- 6.1.7 In view of the above, the Commission approves the Net ARR for recovery for FY 2017-18 and FY 2018-19 as shown in the following Table:

Table 46: Net ARR for recovery as approved by the Commission (Rs. Crore)

Particulars	FY 2017-18	FY 2018-19
Aggregate Revenue Requirement (excluding SLDC Charges)	872.46	968.37
Revenue Gap/(Surplus) after Truing up for FY 2014-15 along with carrying cost	7.43	-
Revenue Gap/(Surplus) after Truing up for FY 2015-16 along with carrying cost	169.15	-
Revenue Gap/(Surplus) for FY 2016-17	143.35	143.35
Net ARR for Recovery	1192.39	1111.72

- 6.1.8 Based on the above Net ARR, the Commission has determined the transmission tariff for FY 2017-18 in subsequent Section of this Order.

- 6.1.9 The approved net ARR of AEGCL for FY 2017-18 and FY 2018-19 has been accounted for in APDCL's ARR approved for FY 2017-18 and FY 2018-19.

6.2 Transmission tariff for FY 2017-18

- 6.2.1 AEGCL has proposed the transmission tariff as shown in the following Table:

Table 47: Proposed Transmission tariff as submitted by AEGCL (Rs. Crore)

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19
1	Net ARR	Rs. Crore	1,047.12	1,585.27	1,588.40
2	Maximum Contracted Capacity*	MW	1,471.00	1,471.00	1,471.00
3	Energy Supplied to APDCL	MU	9057	10998	13066
4	Transmission Charges	Rs./kW/month	593.20	898.07	899.84

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19
5	Transmission Charges	Rs./kWh	1.16	1.44	1.22
6	Short-term Open Access (STOA) Transmission Charges	Rs./MW/day	19,502.62	29,525.45	29,583.80

Note: * - Values of Maximum Contracted Capacity have been revised by AEGCL after TVS, to 1657.20 MW, 1789.60 MW, and 1950.70 MW for FY 2016-17, FY 2017-18, and FY 2019-20, respectively.

Commission's Analysis

6.2.2 As regards the transmission tariff, Regulation 62 of MYT Regulations, 2015 specifies as under:

“62 Components of Tariff

62.1 The transmission charges for access to and use of the intra-State transmission system shall

comprise any of the following components or a combination of the following components:

- a. transmission system access charges;*
- b. annual transmission charges;*
- c. per unit charges for energy transmitted; and*
- d. reactive energy charges.*

Transmission system access charges

62.2 Any person who is eligible to apply for access to the intra-State transmission system shall be entitled to obtain such access in accordance with the AERC (Terms and Conditions for Open Access) Regulations, 2005, as amended from time to time and shall be liable to pay the charges for obtaining such access as specified in this Regulation.

... ..”

6.2.3 In accordance with above said Regulation, the Commission has determined the Annual Transmission Charges and Transmission System Access charges for FY 2017-18. 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.

6.2.4 Annual Transmission Charges for APDCL

The Annual Transmission Charges for FY 2017-18 shall be equal to Net ARR approved for recovery for FY 2017-18, i.e., Rs. 1192.39 Crore.

The Commission has also determined the Annual Transmission Charges in terms of Rs./ kW/ month and per unit charges. The Commission has considered the maximum Contracted capacity of 1789.60 MW as submitted by AEGCL in subsequent replies and estimated energy supplied to APDCL as 9084.16 MU as approved in MYT Order of APDCL.

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.

The transmission charge (inclusive of incentive) payable for a calendar month for a transmission system or part thereof shall be computed in accordance with Regulation 71.2 of MYT Regulations, 2015. This monthly Transmission Tariff shall be shared by all long-term and medium-term open access customers on monthly basis (including APDCL) in the ratio of their allotted capacities.

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 Appendix II of MYT Regulations, 2015. 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.

For representation purposes, the approved Transmission Charges works out to Rs. 1.31/kWh for FY 2017-18.

6.2.5 Transmission System Access Charges

The Commission notes that ARR for AEGCL includes PGCIL Charges which are pertaining to purchase of power by APDCL. Hence, for the purpose of determining transmission system access charges, the Commission has excluded the PGCIL

charges from the approved Net ARR for FY 2017-18, which works out to Rs. 657.84 Crore.

For short-term open access customers, the transmission charges shall be as follows:

Short Term Rate (ST-Rate) per day = Net Transmission ARR excluding PGCIL Charges / Annual Maximum peak * 365 = Rs. 10,071.01 per MW per day.

For collective short-term open access transactions through Power Exchanges, the transmission charges shall be: **Rs. 0.72 per kWh**

Note:

1) The Commission has considered Annual Maximum Peak for FY 2017-18 as 1789.60 MW.

2) Any recovery on account of short-term open access charges shall be adjusted to net ARR of the transmission system after meeting all contingency expenditure in connection with open access transactions.

6.3 Annual SLDC Charges for FY 2017-18

6.3.1 SLDC Charges approved for FY 2017-18 are Rs. 2.60 Crore, which are allocated to APDCL as single user.

6.3.2 However, the SLDC charges to be charged for any other user are as given below:

Approved SLDC charge for 2017-18 is Rs. **2.60** Crore.

Assuming total Capacity handled by SLDC for FY 2017-18 is 1789.60 MW, **approved SLDC charges for FY 2017-18 are Rs. 39.80 per MW per day.**

6.3.3 The annual SLDC charges as determined by the Commission shall be allocated between the Beneficiaries using the intra-State transmission system on the basis of contracted transmission capacity. The SLDC shall furnish necessary monthly bills at the rate of one twelfth of the annual charges as approved by the Commission, to the users of intra State Transmission System being monitored and serviced by it for each billing month within seven days after the last day of the preceding month. The Beneficiaries shall make payment to the SLDC of the amounts due within one month

of the date of receipt of the bill.

- 6.3.4 The Short-term open access customers using the intra-State transmission system shall pay only such scheduling charges to the SLDC as approved by the Commission.

6.4 Applicability of Tariff

- 6.4.1 The approved Transmission tariff and Annual SLDC Charges for FY 2017-18 shall be effective from April 10, 2017 and shall continue until replaced by another Order by the Commission.

Sd/-	Sd/-	Sd/-
(S. C. Das)	(D. Chakravarty)	(N. K. Das)
Member, AERC	Member, AERC	Chairperson, AERC

7 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, AEGCL has submitted the report to the Commission on compliance. The Commission has reviewed the compliance of directives submitted by AEGCL. The Commission hereby re-iterates the following directives along with new 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 expedite the funding from Government of Assam for employer's contribution to terminal liabilities based on actuarial valuation done as on September 30, 2012.

Directive 2: Segregation of SLDC from AEGCL

The Commission directs AEGCL to complete the process of segregation of accounts of SLDC from AEGCL, in order to file separate ARR Petition for SLDC for the next Control Period.

Directive 3: Approval for deviation in Capital Expenditure scheme approved in Business Plan Order dated September 1, 2017

The Commission directs AEGCL to take prior approval of the Commission in case of any addition and/or deletion of schemes or any change in funding pattern of schemes approved in Business Plan Order dated September 1, 2016. AEGCL shall also take prior approval of the Commission in case of any emergency works, apart from the works approved in Business Plan Order dated September 1, 2016, to be carried out during the Control Period from FY 2016-17 to FY 2018-19.

Directive 4: Change in beneficiary of PGCIL

The Commission directs AEGCL and APDCL to work out the modalities to make APDCL rather than AEGCL the beneficiary of PGCIL, before the commencement of the next MYT Control Period (from FY 2019-20 onwards), so that the PGCIL bills are raised to APDCL directly.

Directive 5: Energy Audit for Transmission Loss

The Commission directs AEGCL to carry out the Energy Audit for FY 2017-18 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 for the first six months of FY 2017-18, should be submitted along with the Tariff Petition for FY 2018-19.

Directive 5: Impact of Revision of Pay

The Commission directs AEGCL to submit actual impact on account of Revision of Pay, as and when implemented, along with detailed justification and documentary evidences on basis of the Audited Accounts.

Sd/-	Sd/-	Sd/-
(S. C. Das)	(D. Chakravarty)	(N. K. Das)
Member, AERC	Member, AERC	Chairperson, AERC

8 Annexures

8.1 Annexure – 1 - Minutes of the 21st Meeting of the State Advisory Committee

The 21st meeting of the State Advisory Committee (SAC) was held on 4th March, 2017 at Administrative Staff College, Khanapara, Guwahati.

The list of members, invitees and other officers/consultants present is appended at Annexure – A.

Presiding over the meeting, the Hon'ble Chairperson, AERC, Shri Naba Kumar Das, IAS (Retd) initiated the proceedings. At the onset, he welcomed all members/ invitees of the State Advisory Committee. Thereafter, the agenda items were taken up for discussion in seriatim. The important points raised by the Hon'ble Members during the course of discussions are briefly recorded below.

Agenda No. 1: Confirm the Minutes of the 20th meeting of SAC held on 07.07.2016

The Minutes of the 20th Meeting of the Committee were already circulated among the Members and Special Invitees. No comment was received on the Minutes. With the approval of the members, the Minutes of the 20th meeting of the SAC were confirmed.

Agenda No. 2: Action Taken on the decisions of the 20th Meeting of SAC.

A power-point presentation was made by Consultant, Shri J. Bezbaruah from AERC on the salient features of Action Taken Reports submitted by the power utilities. The Chairperson AERC asked the respective utilities to respond to any query from the SAC Members and also supplement the presentation in case there was any additional information to share. Hard copies of the action taken reports were circulated among the members of SAC. The following discussions took place during the course of the presentation:

- i. It was informed by a representative from APGCL that the last day for bid submissions for EPC contractor for 2 MW Namrup Solar PV Project was extended twice for want of adequate bidders. Finally, technical bids were opened in February last and the process for selection would be completed shortly.
- ii. It was further informed from APGCL that the Company is on its way to sign a MoU with Solar Corporation of India Limited (SECI) for the 69 MW Amguri Solar Project and 20 MW Chandrapur Solar Project.

- iii. A representative from APDCL informed the members that under the UDAY Scheme, the Ministry of Power, Government of India, the Government of Assam and APDCL entered into a tripartite MoU in order to improve operational and financial efficiency of APDCL and enable financial turnaround of the Discom. According to this MoU, the State Government would take over 75% (Rs 1132.53 Cr) of the outstanding State Government debt (Rs 1510.04 Cr) of APDCL as on 30.09.2015. Further 75% of Rs 1132.53 taken over by the State Government would be converted to Grant while the rest 25% to Equity. The State Government is required to guarantee repayment of principal and interest payment for the balance debt remaining with APDCL/bonds issued by APDCL and also to waive off the unpaid interest due from APDCL as on 30.09.2015 amounting to Rs 554Cr.

On the operational front, APDCL will have to reduce AT&C losses to 15% by FY 2019-20. Also, the gap between ACS and ARR is required to be eliminated by FY 2019-20.

- iv. It was informed from APDCL that the issue about non availability of smart meter vendors for the pilot smart grid project has been resolved. 500 Nos. of single phase whole current smart meters and 6543 Nos. of 3 phase whole current smart meters have been received. The installation of the meters has started from 01.03.2017.
- v. APDCL informed that as features like Power factor rebate/penalty, Maximum demand etc are not incorporated in the present prepaid meters supplied by the meter manufacturer, and considering the provision in the schedule of tariff, the installation of prepaid meter would be restricted to the following categories of consumers at present: Jeevan Dhara, Domestic A, Domestic B, Public Lighting & Agriculture.

The Chairman, APDCL Shri Ravi Kapoor, IAS informed that there is a revised plan for installation of prepaid meters in the entire State within the next two years keeping in mind the high level of AT&C losses at present. The Company plans to install prepaid meters in 9 Electrical circles within this year itself – installation in 5 Electrical Circles in the first phase within the next three months and then another 4 Circles in the consequent three months. The 5 Circles selected in the first phase have high AT&C losses and include Jorhat, Nagaon, Rangia, Badarpur and Lakhimpur.

It was further informed by Shri Kapoor that APDCL would replace the old meters and bear the cost of replacement. The decision was taken keeping in mind that through installation of these meters, the commercial losses can be reduced

significantly. Even a 1% reduction in AT&C losses would help recover Rs 4 Cr/ month of revenue and therefore, the project is worth the investment. A total outlay of Rs 1000 Cr is envisaged for replacing the meters and APDCL has requested ADB and AIFA (Assam Infrastructure Financing Agency) for funds in this regard. It was informed that Rs 150 Cr is already available from unused funds of ADB investments in the power sector proposed earlier. It was informed that even the State Government has shown eagerness to assist in this regard.

Citing the example of the city of Imphal, which successfully implemented prepaid meters with 100% recovery of revenue, Shri Kapoor stated that technology seemed to be the most effective way out to deal with AT&C losses and better service to consumers. It was further informed that about two lakh old meters are expected to be replaced with prepaid meters in the 9 Circles.

The MD, APDCL, Dr Om Prakash, IAS informed the members that both online and offline recharge (like PayTM, Airtel Money, internet banking, etc) of the prepaid meters would be made available. He further informed the members that the State Government sanctioned Rs 34 Cr for metering of tea gardens and the meters being installed are all smart prepaid meters. This year also there is a proposal to sanction Rs 45 Cr for prepaid metering in tea gardens. Dr. Prakash informed that the meters would now work as prepaid meters; however, these can also be utilized as smart meters once the networking and other conditions for smart metering becomes available.

There was a suggestion from the members that since the prepaid meters would automatically get disconnected from the power system as soon as power consumption equals amount prepaid; there must be some mechanism inbuilt into the meters to alert the consumers (through sms, beeps) regarding their consumption at specific intervals so that these can be recharged well before power gets shut off. In addition, a mechanism may be developed so that power does not get disconnected during holidays, in weekends, etc.

The Chairperson, AERC expressed satisfaction on the steps taken by the Company and the State Government for installation of smart prepaid meters. He stated that the Commission had been insisting on installation of prepaid meters time and again in different Forums including in its Tariff Orders. Therefore, it is heartening to learn that the Company and State Government have seriously taken up the work in this regard. He stated that APDCL should also ensure that the targets for completion of prepaid metering are met.

- vi. Regarding the matter of creating awareness among the consumers on different issues like safety, energy efficiency, grievance redressal, the SAC members stated that although awareness programmes have been undertaken by the Company, the outreach of these programmes need to be enhanced. Also the expenses incurred in this regard and budget for the proposed programmes should be made available.
- vii. Representatives from the ABITA stated that while installation of prepaid meters is welcome, the Company must ensure greater availability and better quality of power supply to the tea gardens.

Reacting to this observation, MD, APDCL stated that the Company is proposing a three-pronged strategy to curtail AT&C losses and improve power supply & availability in the State. First - Installation of prepaid meters, Second – Separate feeders for HT consumers & Tea gardens (Estimated cost: Rs 500 Cr) and Third – Mapping and Systematic augmentation of the Distribution network. (Estimated cost: Rs 2000 Cr).

Shri Prakash stated that although 100 tea gardens are at present served by separate dedicated feeders, the 11 KV feeders of 700 tea gardens and many HT consumers are yet to be separated from rural feeders. The Company intends to provide separate feeders for them within the next 2 years.

He further stated that at present the length of the distribution line is two to three times longer than the permissible limit and adequate number of DTRs, Sub-stations is not available. As a result, quality of power made available to consumers particularly in some rural areas may not be as good as it should be. Therefore, as a first step towards building a robust distribution network mapping is being done for the entire State to find the gaps, number of substations, DTRs required, augmentation of the lines, etc and 90% work in this regard has been completed.

ADB has been approached for funds for both the above projects.

- viii. On a query from Ms. S. Priyadarshini regarding utilization of funds from ADB, Chairperson AERC observed that perhaps another meeting may be held to review the new & ongoing projects with funds from different sources including ADB.
- ix. Hon'ble Member AERC, Shri Subhash Ch. Das, IAS (Retd) observed that the Coordination Committees on Power which were constituted in different Electrical

Circles with the concerned DGM, APDCL as the Chairman and the Managers of tea estates under his jurisdiction as Members for power infrastructure development and uninterrupted power supply to tea gardens must be revived and meetings held every month. He stated that a lot of issues can be resolved in such meetings and called upon both the tea gardens and APDCL to follow up the decisions taken during such meetings for better power supply. He also asked APDCL to maintain a commercial attitude in its functioning and improve its revenue collection by improving availability and quality of power supply to the tea gardens.

Chairperson AERC directed that similar arrangements be replicated for other HT consumers as well.

- x. The Member from IEX, Shri Mediratta stated that APDCL may adopt Smart Power Procurement strategy to plug the leakages in revenue. He suggested that power is nowadays available in the energy exchanges at a much cheaper price and therefore, APDCL should resort to both long term and short term power procurement in a prudent manner keeping the market availability and price in mind.

Agenda No. 3: Brief account of power scenario in Assam.

There was a brief power point presentation on the present power scenario in the State from APDCL including an overview of the sources from which power is procured for distribution among consumers in both peak and off peak period.

- i. It was observed by APDCL that while the average rate of power purchase was Rs 4.49/unit, power procurement from Bongaigaon NTPS was high at Rs 5.33/unit. Cost overrun of the project due to delay in commissioning is one of the reasons for this high cost and the fixed charge of this Station was Rs 3.40/ unit.
- ii. Regarding levying of FPPPA charges of Rs. 0.59/unit by APDCL from 01.12.2016, Chairperson AERC clarified that the AERC FPPPA Regulations, 2010 allow the distribution company to levy FPPPA charges upto 25% of the variable charge of power to help them pay their fuel and power purchase bills in case of mid year increases due to unforeseen circumstances. Chairperson, AERC explained that every state is having such a Regulation to help the distribution licensees help pay their power purchase bills in time and avoid late payment interests.

Further, MD, APDCL informed that the PGCIL transmission charges have increased more than twice over the last couple of years due to introduction of Point of Connection (PoC) method for computation of interstate transmission charges. PoC

is the latest transmission charge pricing methodology introduced for sharing of Inter State Transmission Systems (ISTS) charges and Losses among the Designated ISTS Customers (DICs) depending on their location and sensitive to their distances from load centers (generators) and generation (customers) and the direction of the node in the grid.

The Chairperson AERC informed that Interstate transmission charges are determined by CERC according to the CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

- iii. On a query from NESSIA, Shri K. Medhi regarding any policy on improving the HT:LT consumer mix, AERC Chairperson informed that this can happen only when more consumption and connections takes place on the HT side and the State Industries Department attracts more investments in the State. He observed that the State at present did not have large consumers like railway traction unlike some other states which could have changed the HT: LT picture noticeably.
- iv. On a suggestion to provide subsidy to bulk consumers, MD, APDCL informed that providing subsidy to any category by APDCL itself was not possible as it was a Company supposed to be functioning on commercial principles.

The Commission observed that a Regulator could only provide cross subsidy to some categories as per the terms and conditions laid down in the National Tariff Policy and the Electricity Act 2003.

Agenda No. 4: Draft AERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010, (Second Amendment), 2016.

These draft Regulations were placed in the official website of the Commission and also circulated among the important stakeholders including the State Government and the SAC Members for their views on the same and public hearing was held on 30.01.2017.

There was a short Power Point presentation by Shri N.K. Deka, Consultant, AERC on the aforementioned draft Regulations and the following discussions took place;

- i. As per the revised Tariff Policy dated 28.01.2016, long-term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power (MoP) in consultation with MNRE and accordingly, MNRE suggested year wise RPO trajectory to the SERCs for notification so as to reach 17% in the total energy mix by

the year 2022 including minimum 8% from Solar. Consequently, a trajectory has been proposed by AERC in the draft Regulations.

- ii. On the status of compliance by the Open Access (OA) consumers and Captive Power Plants (CPP), it was informed that there were 15 OA consumers as on date and all of them complied with their respective RPOs for FY 2015-16. Among the CPPs, 6 are carrying out the compliance as per reports available.
- iii. The SAC member from IEX suggested that the Commission may give a month extension to the obligated entities to comply with RPO for each financial year as the prices of the Renewable Energy Certificates (REC) traded in the power exchanges reduce once the financial year ends. He stated that this would provide relief to the obligated entities.

The Chairperson, AERC thanked the member for his suggestion.

Agenda No. 5: Draft AERC (Electricity Supply Code & Related Matters) Regulations, 2016

A Power Point presentation was made on the salient features of the draft Regulations by Shri P.C. Sarma, Consultant AERC. These draft Regulations were placed in the official website of the Commission and also circulated among the important stakeholders including the State Government and the SAC Members for their views on the same.

The important observations made during the course of the presentation are discussed hereunder:

- i. SAC member from NESSIA stated that there is a provision in the draft Regulations to recover arrears up to 2 years only unless such sum has been continuously shown as arrear in the electricity bills. He opined that this may lead to loss to the distribution company and the provision may be reviewed. It was clarified that it is as per the provision in the Electricity Act 2003.
- ii. There was a suggestion that load survey may be done every year and the month of April may be dedicated for this purpose by the Company.
APDCL observed that the Company allows its consumers scope for voluntary load declaration from time to time.

SAC members agreed that although the scheme for voluntary declaration is welcome, the Company should conduct such surveys at least once in a year to deter consumers from using unauthorized load.

- iii. Representative from AIMO, Ms. V. Pareek stated that the time frame for giving new connections should be adhered to by APDCL.
- iv. On the matter of compensation to some Government officials on payment of electricity bills, it was clarified by APDCL that full payment against the electricity bills of such Government officials were recovered from the State Government. Any compensation in electricity bill to any officer is a perk enjoyed by the officer and is a policy decision of the State Government. However, APDCL does not give any subsidy and the electricity charge due from those officers is recovered in full from the State Government.
- v. Member from NESSIA Shri K. Medhi opined that although provisions are there in the Regulations for controlling power theft, APDCL should create awareness among the consumers for better theft control and revenue recovery.

The Chairperson AERC requested the SAC Members to go through the draft Regulations and submit their views and suggestions on the same. He informed that the Commission intended to hold a public hearing on the responses received against these draft Regulations.

Agenda No. 6 & 7: Presentations and discussions on the MYT Petitions 2016-19 submitted by APGCL, AEGCL and APDCL

Brief power point presentations were held on the MYT Petitions 2016-19 by each of the power utilities namely APGCL, AEGCL and APDCL respectively. The important points raised by the Members are noted below:

- i. PGCIL charges to be booked against tariff of AEGCL.
- ii. The energy requirement projected for the years are based on the 24x7 Power for All Document prepared for the State. There was a suggestion that the projections made in the 19th EPS Report of CEA may also be referred to.
- iii. While long term power purchase is necessary, prudent short term purchase from available sources may contribute in bringing down the average cost of power. States like Gujrat and Maharashtra are also procuring power from the market despite being

power sufficient. The cost of power from BTPS (Unit II) which is likely to be commissioned in April 2017 would be Rs 5.80/ unit.

- iv. Power demand is a sophisticated subject and present facilities of the Discom are not adequate to forecast the demand for the State accurately. Advice from expert firms may be sought.
- v. A comprehensive Study regarding Peak Demand in Assam may also be done to help long term power procurement for the State at the best prices.
- vi. Member, IEX offered to submit a paper on base load surplus in power availability to the Commission.
- vii. There is a huge suppressed demand for power in the State; however, APDCL was unable to cater to this demand due to want of funds to buy the power.

Agenda No. 8: Any Other matter.

No other matter came up for discussion.

The meeting ended with vote of thanks from the Chair.

Sd/-

(N.K. Das)

Chairperson,

Assam Electricity Regulatory Commission.

Annexure A - List of Persons attending the 21st Meeting of the State Advisory Committee held on 4th March, 2017

SAC MEMBERS / REPRESENTATIVES & SPECIAL INVITEES

- (1) Shri N.K. Das, IAS (Retd), Chairperson, AERC
- (2) Shri D. Chakravarty, Member, AERC
- (3) Shri S.C. Das, IAS (Retd), Member, AERC
- (4) Shri K.K. Mittal, IAS, Agricultural Production Commissioner, Govt. of Assam.
- (5) Shri R. Kapoor, IAS, Principal Secretary, Dept of Industries & Chairman, APGCL/AEGCL/APDCL
- (6) Shri Om Prakash, IAS, MD, APDCL
- (7) Shri S. Khanikar, ACS, Joint Secretary , Power Deptt., Govt. of Assam
- (8) Shri B. P. Goswami, MD, AEGCL
- (9) Shri M.C. Gogoi, MD, APGCL
- (10) Shri S. Bora , Member, FINER
- (11) Smt. N. Bujarbaruah, Member, FINER
- (12) Shri B.K. Das, President, Grahak Suraksha Sanstha
- (13) Shri B. Saikia, Secretary, Grahak Suraksha Sanstha
- (14) Shri K. Medhi, State Secretary, NESSIA
- (15) Smt. S. Priyadarshini, Assistant Professor, DCB Girl's College, Jorhat
- (16) Shri R. Mediratta, Director, IEX, N. Delhi
- (17) Shri A. Baruah, Regional Manager, IEX, N. Delhi
- (18) Shri A. Sharma, Secretary, ABITA
- (19) Shri A. Kakati, Gr. Engineer, MRIL
- (20) Shri R.K. Baruah, Gr. Engineer, APPL
- (21) Smt. V. Pareek, Co-ordinator, AIMO
- (22) Shri A.K. Dutta, President, AASSIA

OFFICERS FROM THE UTILITIES

AEGCL

- (1) Shri T. N. Sarma, GM, AEGCL
- (2) Shri D. Paul, GM, Com(T), AEGCL
- (3) Shri S. Kaimal, AGM(F&A), AEGCL
- (4) Shri A. Roy, AGM, AEGCL
- (5) Shri U. S. Nath, AGM, AEGCL
- (6) Shri G.K. Bhuyan, AGM, AEGCL

APGCL

- (1) Smt. A. Baruah, CGM, APGCL

- (2) Shri S. N. Kalita, CGM(F&A), APGCL
- (3) Shri A. K. Phookan, GM, APGCL
- (4) Shri H. Borah, AGM, APGCL
- (5) Smt. A. Saikia, DM, APGCL

APDCL

- (1) Smt. K. Baruah, CGM(F&A), APDCL
- (2) Shri A.K. Das, CGM (PP & D) , APDCL
- (3) Shri H.M. Sarma, GM, APDCL
- (4) Shri A.K. Goswami, GM, APDCL
- (5) Shri P. K. Bhuyan, GM, APDCL
- (6) Shri P.K. Shome, GM, GZ, APDCL
- (7) Shri B.M. Saikia, DGM(Com) , APDCL
- (8) Smt. K. Sarma, DGM, APDCL
- (9) Shri R. Bhuyan, DGM, APDCL
- (10) Shri D. Nath, DGM, APDCL
- (11) Shri A. Sarma, AGM(T) , APDCL
- (12) Shri J. P. Choudhury, AGM (TRC), APDCL

OFFICERS FROM AERC

- (1) Shri S.K Roy, Secretary, AERC
- (2) Shri T. Mahanta, Joint Director (Tariff), AERC
- (3) Shri A. Purkayastha, Deputy Director (Finance), AERC
- (4) Shri G. Sharma, Deputy Director (Engg.), AERC

CONSULTANTS FROM AERC:

- (1) Shri P.C. Sarma, Consultant (Regulations), AERC
- (2) Ms. P. Sharma, Consultant (Finance, Database & Consumer Advocacy), AERC
- (3) Shri H. Bhattacharya, Consultant (Audit), AERC
- (4) Shri S. Tamuli, Consultant (I), AERC
- (5) Shri N.K. Deka, Consultant (Technical), AERC
- (6) Shri J. Bezbaruah, Consultant (II), AERC