ASSAM ELECTRICITY REGULATORY COMMISSION

(AERC)

TRUE-UP for FY 2016-17,

APR for FY 2017-18 and

Revised ARR

and

TARIFF for FY 2018-19

Assam Power Distribution Company Limited (APDCL)

Petition No. 25, 26, 27/2017

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List of Abbreviations

A&G	Administrative & General
ABC	Aerial Bunched Conductors
ABITA	Assam Branch of Indian Tea Association
ABT	Availability Based Tariff
ABP	Average Basic Pay
ABR	Average Billing Rate
ACoS	Average Cost of Supply
ADB	Asian Development Bank
AEGCL	Assam Electricity Grid Corporation Limited
AERC	Assam Electricity Regulatory Commission
APDCL	Assam Power Distribution Company Limited
APDRP	Accelerated Power Development Reforms Programme
APGCL	Assam Power Generation Corporation Limited
APM	Administered Pricing Mechanism
APR	Annual Performance Review
APSEIP	Assam Power Sector Enhancement Investment Programme
APSIP	Assam Power Sector Investment Programme
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
ASEB	Assam State Electricity Board
AT&C	Aggregate Technical and Commercial
ATPA	Assam Tea Planters Association
BPL	Below Poverty Line
CAEDCL	Central Assam Electricity Distribution Company Limited
CAGR	Compounded Annual Growth Rate
CAIDI	Customer Average Interruption Duration Index
CAIFI	Customer Average Interruption Frequency Index
CBDF	Collection Based Distribution Franchisee
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGRF	Consumer Grievance Redressal Forum
CGS	Central Generating Station

COD	Date of Commercial Operation
CPC	Central Pay Commission
CPI	Consumer Price Index
CPSU	Central Public Sector Utility
CSD	Consumer Security Deposit
CSS	Cross-subsidy Surcharge
CTU	Central Transmission Utility
CWIP	Capital Work In Progress
DA	Dearness Allowance
D/C	Double Circuit
DD	Demand Draft
DDUGJY	Deendayal Upadhyay Gram Jyoti Yojana
DELP	Domestic Efficient Lighting Programme
DISCOM	Distribution Company
DMS	Distribution Management System
DPR	Detailed Project Report
DSM	Demand Side Management
DT/DTR	Distribution Transformer
EA, 2003	The Electricity Act, 2003
ECBC	Energy Conservation Building Code
EE	Energy Efficiency
EHV	Extra High Voltage
EPC	Engineering Procurement & Construction
ERP	Enterprise Resource Planning
ERS	Emergency Restoration System
FINER	Federation of Industry & Commerce of North Eastern Region
FPPPA	Fuel Price and Power Purchase Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
GMRETCL	GMR Energy Trading Company Limited
GoA	Government of Assam
GoI	Government of India
GPF	General Provident Fund

HEP	Hydro Electric Project
HH	Household
HP	Horse Power
HT	High Tension
HV	High Voltage
HVCMS	High Value Consumer Management System
IaaS	Infrastructure as a Service
IOCL	Indian Oil Corporation Limited
IPDS	Integrated Power Development Scheme
ISTS	Inter State Transmission System
IT	Information Technology
IWC/IoWC	Interest on Working Capital
JICA	Japan International Cooperation Agency
JNNSM	Jawaharlal Nehru National Solar Mission
kV	kilo Volt
kVA	kilo Volt Ampere
kW	kilo Watt
kWh	kilo Watt Hour
LAEDCL	Lower Assam Electricity Distribution Company Limited
LED	Light Emitting Diode
LOA	Letter of Award
LT	Low Tension
LTC	Leave Travel Concession
LV	Low Voltage
MAT	Minimum Alternate Tax
MIS	Management Information System
MNRE	Ministry of New and Renewable Energy
MoP	Ministry of Power
MOU	Memorandum of Understanding
MRI	Meter Reading Instruments
MU	Million Unit
MW	Mega Watt
MYT	Multi-Year Tariff

NEEPCO	North Eastern Electric Power Corporation Limited
NEP	National Electricity Policy
NERPSIP	North Eastern Region Power System Improvement Project
NESSIA	North Eastern Small Scale Industries Association
NHPC	NHPC Ltd.
NLCPR	Non-lapsable Central Pool of Resources
NTPC	NTPC Ltd.
O&M	Operation and Maintenance
OA	Open Access
OEM	Original Equipment Manufacturer
OPGW	Optical Ground Wire
PFA	Power for All
PFC	Power Finance Corporation Limited
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PoC	Point of Connection
PTCIL	PTC Indian Limited
R&M	Repairs and Maintenance
RAPDRP	Restructured Accelerated Power Development & Reforms Programme
REC	Renewable Energy Certificate
RGGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
ROE	Return on Equity
ROW	Right of Way
RPO	Renewable Purchase Obligation
Rs.	Rupees
SAC	State Advisory Committee
SAIDI	System Average Interruption Duration Index
SBI PLR	State Bank of India Prime Lending Rate
S/C	Single Circuit
SECI	Solar Corporation of India Limited
SHEP	Small Hydro Electric Project
SOP	Standards of Performance

SPV	Special Purpose Vehicle
STU	State Transmission Utility
SLDC	State Load Dispatch Centre
TBCB	Tariff Based Competitive Bidding
TOD	Time of Day
TVS	Technical Validation Session
UAEDCL	Upper Assam Electricity Distribution Company Limited
UI	Unscheduled Interchange
UDAY	Ujjwal DISCOM Assurance Yojana
VCoS	Voltage-wise Cost of Supply
WB	The World Bank
WPI	Wholesale Price Index

ASSAM ELECTRICITY REGULATORY COMMISSION

Guwahati

Present

Shri Subhash Ch. Das, Chairperson

Shri Dipak Chakravarty, Member

Petition No. 25,26,27/2017

Assam Power Distribution Company Limited (APDCL) - **Petitioner**

ORDER

(Passed on 19.03.2018)

(1) APDCL filed the Petitions for approval of Truing up for FY 2016-17, Annual Performance Review (APR) for FY 2017-18 and revised ARR and determination of Tariff for FY 2018-19 as per MYT Regulations, 2015 (Petition Nos. 25, 26 and 27 of 2017) on November 30, 2017.

(2) The Commission held an Admissibility Hearing on December 13, 2017, and admitted the Petitions (Petition No.s 25, 26, and 27 of 2017) vide Order dated December 13, 2017. The Commission conducted preliminary analysis of the Petitions submitted by APDCL and found that the Petitions was incomplete in material particulars. Therefore, additional data and clarifications on the Petitions were sought from APDCL vide letter dated December 13, 2017 and these were submitted by them on December 26, 2017.

(3) On admission of the Petitions, in accordance with Section 64 of the Electricity Act 2003, the Commission directed APDCL to publish a summary of the ARR and Tariff filings in local dailies to facilitate due public participation.

(4) Accordingly, a Public Notice was issued by the APDCL inviting objections/suggestions from stakeholders to be submitted on or before January 10, 2017. The notice was published in six (6) leading newspapers of the State on December 20, 2017. 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 APDCL, and offices of the Deputy General

Manager of each circle of APDCL. A copy of the Petitions was also made available on the websites of the Commission and APDCL.

(5) The Commission received suggestions and objections from Four (4) stakeholders on the Petitions filed by APDCL. The stakeholders were notified about the place, date and time of Hearing, to enable them to take part in the Hearing to be held at Assam Administrative Staff College, Guwahati on February 17, 2018. The Hearing was held as scheduled. The details are discussed in the relevant Chapters of this Tariff Order.

(6) The Petitions were also discussed in the meeting of the State Advisory Committee (SAC) (constituted under Section 87 of the Electricity Act, 2003) held on February 8, 2018 at Assam Administrative Staff College, Khanapara, Guwahati.

(7) The Commission, now in exercise of its powers vested under Sections 61, 62, 86 and 181 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 stakeholders and all other relevant materials on record, has carried out the True-up for FY 2016-17, APR for FY 2017-18 and approval of revised ARR for FY 2018-19, and determined the distribution and retail supply tariff for FY 2018-19, as detailed in subsequent Chapters of this Order.

(8) The Commission directs APDCL to publish a Public Notice intimating the revised distribution and retail supply tariffs before the implementation of this Order, in English and vernacular newspapers and on the website of APDCL.

(9) The approved Retail Supply Tariffs, Wheeling Charges and Cross-Subsidy Surcharge for FY 2018-19 shall be effective from April 1, 2018 and shall continue until replaced by another Order by the Commission.

(10) Accordingly, the Petition No.s 25, 26 and 27 of 2017 stand disposed of.

Sd/-	**Sd/-**
(D. Chakravarty)	**(S. C. Das)**
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 Sections 61, 62 and 86 of the Act from June 10, 2003.

1.2 Tariff related Functions of the Commission

1.2.1 Under Section 86 of the Act, the Commission has the following tariff related functions:

a) To determine the tariff for electricity, wholesale, bulk or retail, as the case may be;
b) To regulate power purchase and procurement process of the distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
c) To promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.

1.2.2 Under Section 61 of the Act in the determination of tariffs, the Commission is to be guided by the following:

a) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
b) That the electricity generation, transmission, distribution and supply are conducted on commercial principles;
c) That factors which would encourage efficiency, economical use of the resources, good performance, optimum investments, and other matters which the State commission considers appropriate for the purpose of this Act;

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

1.2.3 In accordance with the provisions of the Act, the Commission shall not show undue preference to any consumer of electricity in determining the tariff, but may differentiate according to the consumers' load factor, power factor, voltage, total consumption of energy during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required (Section 62 of the Act).

1.2.4 If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, the State Government shall pay the amount to compensate the person affected by the grant of subsidy in the manner the Commission may direct as a condition for the licence or any other person concerned to implement the subsidy provided for by the State Government (Section 65 of Act 2003).

1.3 Background

1.3.1 APDCL owns and operates the distribution system previously owned by Assam State Electricity Board (ASEB). APDCL 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.

1.4 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 AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2015 (herein after referred as “the 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 APDCL filed the MYT Petition for approval of ARR 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 AERC (Terms and Conditions of Tariff) Regulations, 2006 (herein after referred as “Tariff Regulations, 2006”). The Commission issued the MYT Order on March 31, 2017 and approved 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.

1.4.3 Further, the Commission notified the AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2015, First Amendment, 2017 on November 8, 2017. In the said Regulations, certain provisions regarding the scope of Annual Performance Review, rate of interest for consumer security deposit, etc., have been amended.

1.4.4 Regulation 10 of the MYT Regulations, 2015, as amended in November 2017, specifies that the Commission shall undertake the APR and True-up for the respective years of the Control Period from FY 2016-17 to FY 2018-19, as reproduced below:

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

truing up of expenses and revenue in line with Regulation 11including pass through of impact of uncontrollable items;

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

1.5 Procedural History

1.5.1 As per Regulation 10.2 of the MYT Regulations, 2015, APDCL is required to file an application for true up for previous year, i.e., FY 2016-17, APR of current year, i.e., FY 2017-18 and revised ARR and tariff for ensuing year, i.e., FY 2018-19, not less than 120 days before the close of the current year.

1.5.2 APDCL has accordingly filed the Petitions for Truing up for FY 2016-17, APR for FY 2017-18 and for approval of revised ARR and Tariff for FY 2018-19 on November 30, 2017.

1.5.3 The Commission held an Admissibility Hearing on December 13, 2017 and admitted the Petitions (Petition Nos. 25, 26 and 27/2017) vide Order dated December 13, 2017. The Commission conducted preliminary analysis of the Petitions submitted by APDCL and found that the Petitions were incomplete in material particulars. Therefore, additional data and clarifications on the APR Petitions were sought from APDCL vide letter dated December 13, 2017 and these were submitted by them on December 26, 2017.

1.5.4 On admission of the Petitions, in accordance with Section 64 of the Act, the Commission directed APDCL to publish its application in the abridged form and manner to facilitate due public participation.

1.5.5 The copies of the Petitions and other relevant documents were made available to consumers and other interested parties at the office of the Managing Director of APDCL, and offices of the Deputy General Manager of each circle of APDCL. APDCL was also directed to make the copy of the Petitions available on its website. A copy of the Petitions was made available on the website of APDCL (www.apdcl.org) and also on the website of the Commission (www.aerc.gov.in) in downloadable format. A Public Notice was issued by APDCL inviting objections/suggestions from stakeholders on or before January 10, 2018, which was published in the following newspapers on December 20, 2017.

Date	**Name of Newspaper**	**Language**
20.12.2017	The Sentinel	English
20.12.2017	The Assam Tribune	English
20.12.2017	Asamiya Pratidin	Assamese
20.12.2017	Dainik Janambhumi	Assamese
20.12.2017	Purbanchal Prahari	Hindi
20.12.2017	Dainik Jugasankha	Bengali

1.5.6 The Commission considered the objections received and sent communication to the stakeholders 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 17, 2018 at Assam Administrative Staff College, Guwahati. A comprehensive Notice was published in 6 newspapers on February 7, 2018 in Assamese and English language. The Hearing was held at Assam Administrative Staff College, Guwahati on February 17, 2018 as scheduled. All stakeholders/respondents who participated in the Hearing were given the opportunity to express their views on the Petitions.

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 APDCL have been carefully considered while issuing this Tariff Order. The major issues raised by different consumers and consumer groups along with the response of APDCL 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 February 8, 2018.

1.6.2 During the SAC meeting, AEGCL, APGCL and APDCL made presentations on their respective Tariff Petitions filed for FY 2018-19. Apart from this, the issue of devising Action Plan for increasing RPO to 8% for Solar and overall trajectory to 17% including

Solar and Non-Solar by 2022 in view of Ministry of New and Renewable Energy (MNRE) letter dated February 11, 2016, was also discussed.

1.6.3 As regards the Tariff Petition for AEGCL, it was discussed that PGCIL Charges have increased during FY 2016-17 on account of revision by CERC and switch over to Point of Connection (PoC) charges. One of the Members observed that PGCIL Charges accounted for 50% of AEGCL ARR. AEGCL submitted that most of the power consumed was imported from outside the State, hence, PGCIL Charges are high.

1.6.4 As regards the Tariff Petition of APGCL, the issues such as status of commissioning of NRPP, LRPP and Myntriang SHEP, status of Margherita Thermal Power Project, Minimum off-take with gas suppliers in view of de-commissioning of NTPS and LTPS, corrective actions for shortfall in generation on account of shortage of gas, etc., were discussed in detailed. It was also discussed that APGCL is losing out generation because of delay in commissioning of NRPP. Principal Secretary, Power, Government of Assam submitted that it is always economical to increase own generation.

1.6.5 As regards the Tariff Petition of APDCL, the issues such as high fixed charges for industries, levy of Minimum Charges instead of Fixed Charges, quality and reliable supply of power, non-uniform increase proposed for all categories, etc., were discussed in detailed. As regards the installation of separate Feeders for HT and Tea consumers, APDCL submitted that in Annual Plan for FY 2017-18, 35 Tea gardens have been selected for providing separate feeders.

1.6.6 As regards RPO trajectory, it was discussed that MNRE issued letter dated February 11, 2016 to States for developing an Action Plan for compliance of RPO up to 2022 and suggested that SERCs should notify RPO trajectory to reach 8% for Solar and 17% for Solar and Non-Solar by 2022. Accordingly, draft amendment was hosted by the Commission for comments of stakeholders. Members of SAC submitted their comments on the same.

1.6.7 The minutes of the SAC meeting are appended to this Order as **Annexure 1**.

2 Summary of APDCL's Petitions

2.1 Background

2.1.1 APDCL submitted the Petitions on November 30, 2017 seeking approval for True up for FY 2016-17, APR for FY 2017-18, and revised ARR and Retail Tariff for FY 2018-19.

2.2 True-up for FY 2016-17

2.2.1 APDCL submitted True-up for FY 2016-17 based on the audited accounts. The summary of ARR and Revenue Surplus/(Gap) claimed by APDCL for FY 2016-17 is shown in the following Table:

Table 1: True up of ARR for FY 2016-17 as submitted by APDCL (Rs. Crore)

Sr. No.	Particulars	MYT Order	Actuals as per Account	Amount Claimed	Deviation w.r.t. MYT Order
1	Cost of Power Purchase	3447.07	3803.21	3737.25	(290.18)
2	Operation and Maintenance Expenses	774.63	756.09	756.09	18.54
2.1	*Employee Cost*	*659.40*	*601.42*	*601.42*	
2.2	*Repair and Maintenance*	*80.05*	*98.31*	*98.31*	
2.3	*Administrative and General Expenses*	35.18	56.36	*56.36*	
3	Depreciation	12.79	40.78	51.57	(38.78)
4	Interest and Finance Charges	22.42	203.62	90.46	(68.04)
4.1	Interest on Working Capital	1.38	6.06	9.73	(8.35)
4.2	Other Debits		0.38	0.38	(0.38)
4.3	Interest on Consumer Security Deposit	40.00	45.85	15.37	24.63
5	Provision for Bad and Doubtful Debts	12.42	10.39	10.39	2.03
6	Net Prior Period Expenses		(23.04)	(130.17)	130.17
7	**Sub-Total**	**4310.71**	**4843.34**	**4541.06**	**(230.35)**

Sr. No.	Particulars	MYT Order	Actuals as per Account	Amount Claimed	Deviation w.r.t. MYT Order
8	Add: Return on Equity	26.04		26.04	0.00
9	**Total Expenses**	**4336.75**	**4843.34**	**4567.11**	**(230.35)**
10	Less: Non-Tariff Income	158.18	198.02	198.02	39.84
11	**Aggregate Revenue Requirement**	**4178.57**	**4645.32**	**4369.09**	**(190.52)**
12	Revenue with approved Tariff (including FPPPA)	4700.41	3839.14	3839.14	(861.27)
13	Other Income (Consumer related)	164.72	277.68	277.68	112.96
14	Total Revenue before subsidy	4865.13	4116.82	4116.82	(748.31)
15	Targeted Subsidy		394.53	394.53	394.53
16	Other Subsidy		100.00	100.00	100.00
17	**Total Revenue after Subsidy**	**4865.13**	**4611.35**	**4611.35**	**(253.78)**
18	**Revenue Surplus/(Gap)**	**686.56**	**(33.97)**	**242.27**	**(444.29)**

2.2.2 APDCL requested the Commission to approve the above Revenue Gap of Rs. 444.29 crore and allow APDCL to recover the Revenue Gap in subsequent periods.

2.3 Annual Performance Review for FY 2017-18

2.3.1 The summary of ARR and Revenue Surplus/(Gap) claimed by APDCL for APR of FY 2017-18 is shown in the following Table:

Table 2: Annual Performance Review of FY 2017-18 as submitted by APDCL (Rs. Crore)

Sr. No.	Particulars	MYT Order	Estimated Actuals	Amount Claimed	Deviation w.r.t. MYT Order
1	Cost of Power Purchase	4376.29	4307.99	4307.99	68.30
2	Operation and Maintenance Expenses	870.15	947.26	947.26	(77.11)
2.1	*Employee Cost*	*728.12*	*777.96*		
2.2	*Repair and Maintenance*	*103.21*	*109.35*		

Sr. No.	Particulars	MYT Order	Estimated Actuals	Amount Claimed	Deviation w.r.t. MYT Order
2.3	*Administrative and General Expenses*	*38.82*	*59.96*		
3	Depreciation	21.93	83.78	63.62	(41.69)
4	Interest and Finance Charges	14.14	164.46	73.86	(59.72)
5	Interest on Working Capital	12.56	6.36	23.92	(11.36)
6	Other Debits	0.00	0.00	0.00	0.00
7	Interest on Consumer Security Deposit	40.00	47.57	15.95	24.05
8	Provision for Bad and Doubtful Debts	12.42	14.42	14.42	(2.00)
9	**Sub-Total**	**5347.49**	**5571.85**	**5447.03**	**(99.54)**
10	Add: Return on Equity	26.04		40.23	(14.19)
11	**Total Expenses**	**5373.53**	**5571.85**	**5487.26**	**113.73**
12	Less: Non-Tariff Income	166.28	207.92	207.92	41.64
13	**Aggregate Revenue Requirement**	**5207.25**	**5363.93**	**5279.34**	**(72.09)**
14	Revenue with approved Tariff (including FPPPA)	5529.67	4869.07	4869.07	(660.60)
14	Other Income (Consumer related)	172.96	157.61	157.61	(15.35)
15	Total Revenue before subsidy	5702.63	5026.68	5026.68	(675.95)
16	Targeted Subsidy		345.81	345.81	345.81
17	Other Subsidy		560.58	560.58	560.58
18	**Total Revenue after Subsidy**	**5702.63**	**5933.07**	**5933.07**	**230.44**
19	**Revenue Surplus/(Gap)**	**495.38**	**569.14**	**653.73**	**158.35**

2.3.2 APDCL requested the Commission to approve the above Revenue Gap of Rs. 286.12 crore, after including the Revenue Surplus/(Gap) of FY 2016-17, and allow APDCL to recover the Revenue Gap in subsequent periods appropriately through Fixed/Demand Charge and Energy Charge.

2.4 Revised Aggregate Revenue Requirement for FY 2018-19

2.4.1 The summary of revised ARR and Revenue Surplus/(Gap) claimed by APDCL for FY 2018-19 is shown in the following Table:

Table 3: Revised ARR for FY 2018-19 as submitted by APDCL (Rs. Crore)

Sr. No.	Particulars	MYT Order	Projected	Amount Claimed	Deviation w.r.t. MYT Order
1	Cost of Power Purchase	4972.94	4881.48	4881.48	91.46
2	Operation and Maintenance Expenses	972.90	1148.70	1148.70	(175.80)
2.1	*Employee Cost*	804.00	959.69		
2.2	*Repair and Maintenance*	126.37	125.42		
2.3	*Administrative and General Expenses*	42.53	63.59		
3	Depreciation	32.76	117.15	69.05	(36.29)
4	Interest and Finance Charges	16.82	103.19	71.23	(54.41)
5	Interest on Working Capital	20.58	7.33	34.89	(14.31)
6	Other Debits			0.00	0.00
7	Interest on Consumer Security Deposit	40.00	47.57	15.95	24.05
8	Provision for Bad and Doubtful Debts	12.42	14.42	14.42	(2.00)
9	**Sub-Total**	**6068.42**	**6319.85**	**6235.73**	**(167.31)**
10	Add: Return on Equity	26.04		71.34	(45.30)
11	**Total Expenses**	**6094.46**	**6319.85**	**6307.08**	**(212.62)**
12	Less: Non-Tariff Income	174.59	218.32	218.32	43.73
13	**Aggregate Revenue Requirement**	**5919.87**	**6101.54**	**6088.76**	**(168.89)**
14	Revenue with approved Tariff (including FPPPA)	6119.94	5511.33	5511.33	(608.61)
14	Other Income (Consumer related)	181.61	135.62	135.62	(45.99)
15	Total Revenue before subsidy	6301.55	5646.95	5646.95	(654.60)
16	Targeted Subsidy		379.79	379.79	379.79

Sr. No.	Particulars	MYT Order	Projected	Amount Claimed	Deviation w.r.t. MYT Order
17	Other Subsidy		353.51	353.51	353.51
18	**Total Revenue after Subsidy**	**6301.55**	**6380.25**	**6380.25**	**78.70**
19	**Revenue Surplus/(Gap)**	**381.68**	**278.71**	**291.49**	**(90.19)**

2.4.2 APDCL requested the Commission to approve the above Revenue Gap for FY 2018-19, in addition to the past period dues.

2.5 Tariff Proposed by APDCL

2.5.1 APDCL submitted that based on the above request for True-up for FY 2016-17, APR for FY 2017-18 and revised ARR for FY 2018-19, the proposed cost recovery is as under:

Table 4: Cumulative ARR for FY 2018-19 as proposed by APDCL (Rs. Crore)

Sr. No.	Particulars	Amount
1	Proposed ARR for FY 2018-19 without Targeted Subsidy	5844.90
2	Revenue Gap/(Surplus) for FY 2016-17	444.29
3	Revenue Gap/(Surplus) for FY 2017-18	403.04
4	Revenue Gap/(Surplus) for FY 2018-19	(18.05)
5	OFR Support for FY 2018-19	353.51
	Total	**6320.68**

2.5.2 APDCL submitted that considering the projected sale of 8080 MU during FY 2018-19, the Average Cost of Supply (ACoS) works out to Rs. 7.82 per kWh.

2.5.3 APDCL proposed increase in fixed/demand charges ranging from Rs. 10 to Rs. 15 per kW for LT categories and ranging from Rs. 15 to Rs. 50 per kVA per month for HT categories. APDCL proposed increase in energy charges ranging from 20 to 40 paise/kWh for LT categories and from 30 to 75 paise/kWh for HT categories, with corresponding changes in the Time of Day (ToD) tariff.

2.5.4 APDCL has proposed the Wheeling Charges for Open Access at 33 kV/11 kV voltage as 30 paise/kWh for FY 2018-19, based on allocation of the ARR into the Wires Business and Retail Supply Business in accordance with the allocation matrix adopted by the Commission in the MYT Order dated 31 March, 2017. APDCL has proposed the Wheeling Losses for FY 2018-19 as 5% and 11% for 33 kV and 11 kV, respectively, as approved by the Commission for FY 2017-18 in the MYT Order.

2.5.5 APDCL has proposed the Cross-subsidy Surcharge (CSS) for FY 2018-19 based on the approach adopted by the Commission in the MYT Order, as shown in the Table below:

Table 5: Cross-Subsidy Surcharge for FY 2018-19 as proposed by APDCL (Rs./kWh)

Sr. No.	Particulars	Amount
1	Average Billing Rate for HT-I category	8.76
2	Average Billing Rate for HT-II category	9.50
3	Average Cost of Supply	7.82
4	Cross-subsidy for HT-I category (1-3)	0.94
5	Cross-subsidy for HT-II category (2-3)	1.67
6	Cross-subsidy Surcharge for HT-I category (1-3)	0.94
7	Cross-subsidy Surcharge for HT-II category (2-3)	1.67

2.5.6 **After perusal of the Petitions, the Commission observes that there are several obvious errors in filing of the Petitions and calculation of Revenue Gap/(Surplus), etc. It is also seen that many of the submissions are conceptually wrong. The Commission has issued the necessary directions in this regard in the Chapter on Directives**.

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

3.1.1 The Commission has received comments/suggestions from the following eight (8) stakeholders on the Petitions filed by APDCL:

Sr. No.	Name of Stakeholder
1.	Grahak Suraksha Sanstha
2.	North Eastern Small-Scale Industries Association (NESSIA)
3.	Shri Jayanta Deka
4.	Assam Branch of Indian Tea Association (ABITA), Guwahati.
5.	Federation of Industry & Commerce of North Eastern Region (FINER)*
6.	Bidyut Grahak Mancha*
7.	All India Manufacturers Organisation, North East Tinsukia, Assam*
8.	M/s. Star Cement Ltd. (SCL)*

Note: * The suggestions/objections were received during the Public Hearing

3.1.2 APDCL has submitted its responses to the objections/ suggestions received from the above stakeholders.

3.1.3 The Commission considered the objections/ suggestions received and notified the stakeholders 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 Assam Administrative Staff College, Guwahati on February 17, 2018.

3.1.5 The stakeholders 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 APDCL have been carefully considered while issuing this Tariff Order.

3.1.6 The objections/suggestions made by the stakeholders and responses of the Petitioner are briefly dealt with in this Chapter. The major issues raised by the stakeholders are discussed below along with the response of APDCL 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 Petitions and also those raised during the course of the Hearing have been grouped and addressed issue-wise, in order to avoid repetition.

Issue 1: Revenue Gap/(Surplus)

Objection

ABITA submitted that on one hand, APDCL's submission itself shows that there is revenue surplus of Rs. 242.27 Crore for FY 2016-17, while on the other hand APDCL is claiming a deficit of Rs. 444.29 Crore for FY 2016-17, which seems to be an error. ABITA proposed the revenue surplus of Rs. 352.79 Crore for FY 2016-17 for approval by Commission.

ABITA submitted that there is a revenue surplus of Rs. 653.74 Crore for FY 2017-18, while APDCL is claiming surplus of Rs. 158.35 Crore. Similarly, for FY 2018-19, APDCL has considered a deficit of Rs. 90.19 Crore as against the surplus of Rs. 291.41 Crore in its submission.

ABITA further added that even after the adjustments for past year gaps, there is new surplus of Rs. 22.56 Crore at the end of FY 2017-18 which along with Rs. 751.51 Crore of surplus determined for FY 2018-19 could be utilised for rationalising the tariff of subsidized consumers like industrial, tea & coffee, etc.

ABITA requested the Commission to carry forward the revenue surplus along with carrying cost as done in the case of revenue gap and disallow the tariff hike being proposed for FY 2018-19 by APDCL.

NESSIA submitted that APDCL has incurred a cumulative loss of Rs. 3000 Crore, since reforms had been introduced in the power sector in mid-2005. NESSIA requested the Commission to impress upon APDCL to come out with such proposals and to submit reports of implementation and improvement of AEC on half-yearly basis.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

Commission's View

There is an error in APDCL's submissions of Revenue Gap/(Surplus) for the respective years and the cumulative Revenue Gap/(Surplus), which was pointed out in the TVS, however, APDCL has not revised its Petition. The Commission has trued up the ARR and Revenue Gap/(Surplus) for FY 2016-17, and the treatment of the same and the revised Tariff for FY 2018-19 have been detailed in Chapter 7 of this Order.

Issue 2: ARR for FY 2016-17 to FY 2018-19

Objection

All India Manufacturers Organisation, North East Tinsukia, Assam (AIMO) submitted that the projected ARR of APDCL is inflated and erroneous, and is liable to be rejected.

Response of APDCL

APDCL submitted that it has provided detailed justification for the projections made in the Petitions and it would be incorrect to say that the same are excessive. APDCL added that the key reasons for increase in the ARR of APDCL are increase in the cost of power being sourced from various CPSUs and APGCL, pay revision of employees, increase in asset base and rural access, pending liabilities of previous years, etc.

Commission's View

The Commission has provisionally approved the expenses for FY 2017-18 after APR and approved the projections for FY 2018-19, based on the trued-up expenses for FY 2016-17 and in accordance with the MYT Regulations, 2015, as elaborated in Chapter 5 and Chapter 6, respectively.

Issue 3: Revenue Grant

Objection

ABITA submitted that it has considered the revenue grant of Rs. 560.58 Crore for FY 2017-18 and Rs. 353.51 Crore for FY 2018-19 as claimed by APDCL to be available towards Operational Funding requirement as per UDAY MoU.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

Commission's View

The Commission has not considered the Revenue Grant of Rs. 560.58 Crore for FY 2017-18 and Rs. 353.51 Crore for FY 2018-19, while computing the ARR and Revenue Gap/(Surplus) for the respective years, as the same has been provided by the Government of Assam (GoA) under the UDAY MoU against past power purchase dues, which have already been allowed as an expense in earlier years. The detailed rationale for the same is elaborated in Chapter 5 and Chapter 6, respectively, of this Order.

Issue 4: Revenue from sale of Power in the State

Objection

ABITA has proposed the average revenue realisation of Rs. 7.35 per unit and Rs. 7.29 per unit for FY 2017-18 and FY 2018-19, respectively.

All India Manufacturers Organisation, Assam requested the Commission to direct APDCL to provide constant and regular power supply, so that revenue earning potential of APDCL is increased and misery faced by the respondent is reduced.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

Commission's View

The Commission has considered the revenue from existing tariff based on the projected category-wise sales and the tariff approved in the MYT Order.

Issue 5: Power Purchase Cost

Objection

NESSIA suggested that APDCL should purchase more power to meet the present and future demand for power since easily affordable power is available at various Power Exchanges, which is financially beneficial rather than generating power.

ABITA has proposed power purchase cost of Rs. 3689.80 crore after adjusting Delayed Payment Surcharge, difference on account of additional power purchase quantum, and reduction of power purchase cost towards swapping of power. ABITA requested the Commission to demand all invoices and supporting documents to undertake prudence check for various elements of power purchase.

ABITA has considered projected power purchase quantum and cost for APGCL stations as per the approved tariff for FY 2017-18. ABITA added that APDCL has projected the purchase from Traders at Rs. 3.74 per unit and from Indian Energy Exchange (IEX) at Rs. 3.87 per unit in FY 2017-18. Also, short-term purchase from IEX has been projected at Rs. 3.50 per unit for FY 2018-19. These purchases are higher as against the approved rate of Rs. 2.30 per unit. Further, APDCL has not considered any sale of surplus power and its revenue.

ABITA has projected net Power Purchase Cost of Rs. 4311.19 Crore and Rs. 4621.63 Crore as against APDCL submission of Rs. 4307.99 Crore and Rs. 4881.48 Crore for FY 2017-18 and FY 2018-19, respectively. ABITA requested the Commission to undertake adequate prudence check while approving the same.

FINER submitted that APDCL has projected an increase in average power purchase cost from Rs. 3.91 per kWh for FY 2013-16 to Rs. 4.68 per kWh in FY 2016-19, which is exorbitant and without any basis. FINER requested the Commission to undertake due diligence while approving the power purchase cost from various stations and fix accountability for this situation.

All India Manufacturers Association, Assam requested the Commission to direct APDCL to procure power from the agencies like IEX, and start the process to purchase power from Bhutan, which is cheapest in the world, rather than procuring power from several suppliers.

Grahak Suraksha Sanstha submitted that no new Power Generation Plants have been installed in Assam during the last several years.

Response of APDCL

In reply to NESSIA, APDCL submitted that the major component of expenditure is power purchase cost, which is more than 75% of the total expenditure with approved rate. To meet any gap between demand and supply, APDCL is purchasing power from IEX and other bilateral sources on day-to-day basis.

In reply to ABITA, APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

APDCL submitted that the rate of short-term power procurement through IEX has increased in recent times and the projections made by APDCL in the Petitions are based on the present trend. Usually, APDCL procures power from IEX during peak hours, which is costlier than power available during off peak hours. Therefore, the rationale provided by the respondent is not justified.

Commission's View

The Commission has trued up the power purchase cost based on the Audited Accounts and prudence check. The Commission has disallowed the Delayed Payment Surcharge payable to NEEPCO, as such penal charges cannot be passed on to the consumers, in line with the approach adopted in earlier Orders. The Commission has disallowed the excess power purchase cost in the true-up of FY 2016-17, by restricting the power purchase quantum to that corresponding to the approved Distribution Loss level, as Distribution Losses are a controllable parameter. The detailed analysis of power purchase expenses for FY 2016-17 is elaborated in Chapter 4 of this Order.

The Commission has considered the source-wise power purchase quantum and rate for FY 2017-18 as projected by APDCL, which is based on the actual quantum purchased in H1 of FY 2017-18. For FY 2018-19, the source-wise power purchase quantum and rate have been considered equal to the quantum and rate considered for FY 2017-18.

While the rates in the Power Exchange are generally lower, the Commission feels it prudent to have energy security by contracting the minimum requirement of power during peak and off-peak hours from long/medium-term sources, and power purchases from Exchanges can be made for meeting the short-term deficit.

The detailed analysis of power purchase expenses for FY 2017-18 and FY 2018-19 are elaborated in Chapters 5 and 6 of this Order.

Issue 6: Energy Sales

Objection

ABITA requested the Commission to direct APDCL to submit actual category-wise revenue and see if the average tariff recorded in the accounts are in line with the approved tariff. ABITA further requested the Commission to undertake prudence check while approving the sales in Jeevan Dhara category and consider the excess sale of over 30 units per month in subsequent tariff category, similar to the methodology adopted in previous Orders.

ABITA observed that APDCL has not provided any basis for the growth rates being considered for sales projections of each category for FY 2017-18 and FY 2018-19. APDCL has considered the negative growth for Jeevan Dhara Category in FY 2017-18 and almost 84% growth in FY 2018-19. The estimation of 84% increase sales is unjustified. ABITA reviewed the projections by assuming 10% growth rate for FY 2017-18 and 20% growth rate for FY 2018-19 (factoring the impact of Saubhagya Scheme). For Agriculture upto 7.5 HP, APDCL has considered the growth rate in the range of 43%- 45% for FY 2017-18 and FY 2018-19, which is considerably higher than past trends. ABITA requested the Commission to consider the sales increase of 9% for FY 2017-18 and increase of 10% for FY 2018-19 as proposed by ABITA.

FINER submitted that Regulation 93 of the MYT Regulations, 2015 requires APDCL to submit restricted demand due to system constraints, hence, APDCL should submit actual monthly load curves. FINER added that APDCL in its Petition for truing up for FY 2016-17 and tariff proposal for FY 2018-19 has not followed this process, and has submitted very high sales figure in the 'Jeevan Dhara' category while the sales projections in the other categories are quite restricted. FINER requested the Commission to undertake an inquiry into the misinterpretation of sales by APDCL as this will lead to increase in the existing cross subsidy structure.

Response of APDCL

APDCL submitted that most of the Jeevan Dhara consumers who consume more than 30 units per month have been converted to Domestic A Category and are now billed under Domestic A Category.

Commission's View

The Commission has done the required prudence check of consumption, and considered Jeevan Dhara consumption only upto 30 units per month.

The Commission has projected the revised category-wise sales for FY 2017-18 and FY 2018-19, after considering the actual category-wise sales in FY 2016-17, and the realistic projected addition of Jeevan Dhara and Domestic A categories as considered by the Commission, and the appropriate CAGR. The detailed category-wise sales approved by the Commission for FY 2017-18 and FY 2018-19 is elaborated in Chapter 5 and Chapter 6, respectively, of this Order.

Issue 7: Distribution Loss and Energy Balance

ABITA submitted that APDCL has mentioned the reasons of addition of new consumer base under the RGGVY scheme for non-achievement of distribution loss target. However, other States like Himachal and Uttarakhand have also been adding consumers under the RGGVY scheme, but have still been able to reduce the loss levels. The Commission has been approving the relaxed trajectory for APDCL considering the poor performance of APDCL. For the MYT Control Period from FY 2016-17 to FY 2018-19, the Commission has given an annual target of 0.25% loss reduction, which is very conservative. Despite such relaxation, APDCL has not able to meet the loss levels approved by Commission.

ABITA requested the Commission to consider loss level of 17.35% for FY 2016-17, while computing the disallowance in power purchase cost. ABITA proposed that there should not be any sharing of losses for any under achievement from the target set by the Commission because APDCL is not meeting the modest targets set by the Commission.

ABITA submitted that APDCL should only be allowed the energy requirement as per the approved distribution loss. ABITA has proposed the Net Energy Surplus of 192.68 MU and 388.67 MU as against APDCL submission of "NIL" for each year of FY 2017-18 and FY 2018-19, respectively.

All India Manufacturers Organisation, Assam (AIMO) submitted that the main reasons for low revenue generation are theft, illegal connections, inefficient supervision, mismanagement, and corruption within the organisation.

Grahak Suraksha Sanstha submitted that theft of power by some persons is cheating APDCL and thereby causing harm to genuine consumers. APDCL has not taken any constructive steps to check the menace of power theft.

Grahak Suraksha Sanstha added that the consumers covered under the RGGVY Scheme are violating the restricted usage of electricity, thereby causing financial losses to APDCL and harm to honest consumers. APDCL should be instructed to maintain proper vigilance on these consumers. A large number of the targeted consumers of this category have not yet been provided electricity connection.

Grahak Suraksha Sanstha submitted that APDCL has submitted in the past that a new law is proposed very soon in the State of Assam to check power theft and improve efficiency and to minimise the T&D losses, however, it is not known when the "very soon" will become reality.

Grahak Suraksha Sanstha added that 100% metering of the sale of the energy is seen in case of general consumers, but no meter is installed in the household of Government officers and Government offices. Newspaper reports have displayed that some Government offices have unpaid electricity bill of five to six months, yet no action is taken against them.

Jayanta Deka submitted that APDCL has failed to check the pilferage of electricity perpetrated by large number of individuals and the burden is borne by the bonafide consumers.

FINER submitted that distribution losses have a significant impact on the cost of supply of the Distribution Licensee and on the requirement of subsidy or cross subsidy in tariff structure. FINER submitted that the Distribution Loss should be reduced at the earliest, in the interest of the cross-subsiding industrial consumers.

FINER requested the Commission to retain the distribution loss levels approved for the Control Period and to not pass on the inefficiency of APDCL to the consumers, as APDCL is not achieving the target set by the Commission.

During the public hearing, All India Manufacturers Organisation, Assam (AIMO) requested the Commission to direct APDCL not to charge AIMO with excess distribution loss over and above the target set by the Commission, and to direct APDCL not to recover the loss incurred at LT level from the HT Consumer.

NESSIA submitted that the Distribution Loss are on the higher side, and should be reduced to at least the level acceptable to consumers for balancing revenue losses.

The actual loss data should be published on half-yearly basis. There is apprehension that few sectors, viz., steel, cement and gas-based processing industries are prone to power theft, who should be monitored and checked regularly by APDCL.

NESSIA suggested that all HT industries above 1 MW should be encouraged to take power on Open Access with dedicated line.

Response of APDCL

APDCL submitted that it has taken various measures to reduce the distribution loss level like disconnection, legal action by initiating money suit against the defaulting consumers, and strengthening of the Vigilance Wing, and loss level has reduced significantly from 37% in last 10 years. The High Value consumer monitoring system cell of APDCL has contributed significantly in detection of theft and other malpractices, prevention of wrong billing and enhancement in revenue realisation of APDCL through monitoring of HT Consumers.

The consumers who have got power supply under RGGVY (DDUGJY) schemes fall under Jeevan Dhara category. If the consumers under this category violate the prescribed unit limit, then they are billed in Domestic A category. APDCL has been taking care of this issue and necessary steps have already been incorporated in the billing software. The consumers under the above schemes are already under APDCL billing cycle and the consumers who have not yet got connection will be provided with connection in due course of time.

APDCL is trying its best to comply with GOI policy to provide power supply to all as well as the loss reduction levels approved by the Commission. APDCL has reduced the distribution loss in the urban area in Assam below 15% but because of the huge expansion of rural network leading to HT:LT ratio of 40:60, the loss level as a whole is on the higher side.

APDCL submitted that various projects under RAPDRP and other network strengthening projects were commissioned during FY 2014-15 and FY 2015-16, as a result losses have come down, despite increase in the sales under LT category, and there is no anomaly as stated by the Respondent. The LT category consumption will increase further due to Government schemes. Therefore, the scope of the loss reduction is not as per the submission of the Respondent.

APDCL submitted that all HT consumers are vigilantly monitored under a High Value Consumer Management System (HVCMS) cell in APDCL. The Metering details of these consumers are studied using software and anomaly in meter or power consumption can be conveniently found out. APDCL has been successful in catching a number of cases of misuse of power in this manner. APDCL has already allowed the HT Industries above 1 MW to draw power on 'Open Access' with dedicated line. However, SLDC is not equipped with any technology to monitor the Open Access transaction properly.

APDCL submitted that there is no justification for disallowing APDCL the actual loss submitted in the Petitions. APDCL added that the Projection made by APDCL in its Petitions for FY 2017-18 and FY 2018-19, is as per the previous trend and future prospects, and the Commission may decide on the same.

Commission's View

The consumption of Jeevan Dhara category has been limited to 30 units per month, and the addition of Jeevan Dhara consumers has been considered based on actual achievement in recent years and addition projected by APDCL.

The Commission has approved the Energy Requirement considering the distribution loss trajectory approved in the MYT Order. Distribution losses being a controllable parameter, the excess power purchase on account of distribution losses being higher than the target losses have been disallowed in the truing up for FY 2016-17, by sharing the efficiency losses between APDCL and the consumers, in accordance with the MYT Regulations, 2015.

The Commission has not considered any surplus energy quantum for FY 2017-18 and FY 2018-19, and the power purchase cost has been considered only upto the energy required for sale within the State. Any actual sale of surplus power will be considered at the time of true-up for FY 2017-18 and FY 2018-19.

Consumers having Contract Demand in excess of 1 MW are entitled to Open Access, and the Commission accordingly determines the OA Charges, including CSS.

The rationale for determining category-wise tariffs on the basis of ACoS rather than Voltage-wise Cost of Supply (VCoS) has been elaborated in Chapter 7 of this Order.

Issue 8: Operation and Maintenance (O&M) Expenses

Objection

ABITA submitted that in the MYT Order, the Commission has approved growth in employees by 3%, which has not happened. In absence of details relating to number of employees and retirements during the year, growth factor cannot be worked out. ABITA requested the Commission to consider the actual employee cost of Rs. 601.42 Cr claimed by APDCL for the purpose of truing up.

ABITA proposed the O&M expenses of Rs. 794.65 Crore for FY 2017-18 and Rs. 877.10 Crore for FY 2018-19 based on the revised employee expenses as per ABITA and retaining the A&G expenses and R&M expenses as approved in the MYT Order for FY 2017-18 and FY 2018-19. The expenses on account of ROP should be allowed based on detailed justification and documentary evidences on the basis of audited accounts, as and when implemented.

ABITA submitted that the Commission has already provided higher R&M expenses in the MYT Order. ABITA requested the Commission not to allow any R&M Expenses over and above the approved figures for FY 2016-17. ABITA requested the Commission to consider R&M Expense as approved in MYT Order for FY 2017-18 and FY 2018-19.

As regards the A&G expenses, ABITA submitted that APDCL has claimed A&G Expenses of Rs. 56.36 Crore against approved Rs. 35.18 Crore, which is higher by Rs. 21 Crore. ABITA observed that technical fee of Rs. 11.20 Crore and ERP expenses of Rs. 10.17 Crore should be part of capital expenditure and should not be part of A&G Expenses.

ABITA requested the Commission to approve A&G Expenses of Rs. 32.18 Crore (excluding provision of Rs. 3 Crore) for FY 2016-17 and any additional amount incurred by APDCL should be disallowed. ABITA requested the Commission to consider A&G Expense as approved in MYT Order for FY 2017-18 and FY 2018-19.

FINER submitted that APDCL has claimed the actual O&M expenses in the truing-up for FY 2016-17, which is higher than that approved by the Commission in the MYT Order, and also much higher than the actual O&M expenses incurred by APDCL for FY 2014-15 and FY 2015-16. However, O&M expenses are controllable expenses and have to be incurred by APDCL within the amounts allowed by the Commission. FINER requested the Commission not to allow O&M expenses on actuals and direct APDCL to make appropriate efforts for reducing this cost parameter.

Response of APDCL

APDCL submitted that it has submitted all the details before the Commission. The Commission may decide on the same.

Commission's View

The Commission has allowed the O&M expenses on normative basis as per the formula specified in the MYT Regulations, 2015 based on the revised CPI and WPI indices for FY 2016-17, FY 2017-18 and FY 2018-19. The Commission has undertaken the sharing of gains or losses based on approved normative expenses and actual O&M expenses for FY 2016-17. The detailed computation of O&M expenses for FY 2016-17 has been given in Chapter 4 of this Order, while the computation of revised normative O&M expenses for FY 2017-18 and FY 2018-19 are elaborated in Chapter 5 and Chapter 6, respectively, of this Order.

Issue 9: Investment Plan and Capitalization

Objection

NESSIA submitted that APDCL has taken funding from Assam Bikash Yojana, RGGVY, RAPDRP, etc., to improve the sub-transmission and distribution system. With the completion of these projects it was expected the supply quality would improve considerably as stated on 30-11-2010 by APDCL, however, this has not been seen on the field.

ABITA submitted that APDCL has not provided the scheme-wise information, schemes capitalised and their funding pattern. ABITA requested the Commission to approve the capitalisation for FY 2016-17 as approved in the MYT Order and consider truing up on this account at the end of Control Period based on the adequate scheme-wise details of capital expenditure and capitalisation.

ABITA added that APDCL has overstated the capital expenditure and it has not been able to demonstrate such large capital expenditure in past years. ABITA requested the Commission to direct APDCL to submit the details of various works being undertaken along with their progress and likely completion dates.

FINER submitted that APDCL is not able to actually capitalise the assets to the extent allowed in the Tariff Orders by the Commission. The projected Capitalisation claimed in the Petitions is always higher but the actuals are much lower. FINER requested the Commission to discourage the process of capitalisation proposed by APDCL.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same. APDCL added that as it has exceeded the approved level of capitalisation in FY 2016-17, it is hopeful of continuation of the same in the subsequent year and as regards the SAUBHAGYA scheme, APDCL is expecting achievement of the same within deadlines.

Commission's View

The Commission has studied the scheme-wise capitalisation in FY 2016-17 and considered a realistic capital expenditure plan and capitalisation for FY 2017-18 and FY 2018-19, based on the capital expenditure and capitalization approved in the Business Plan Order and present status of the projects.

The Commission's views regarding the capital expenditure and capitalisation for FY 2016-17, FY 2017-18 and FY 2018-19 have been detailed in Chapter 4, Chapter 5 and Chapter 6, respectively, of this Order.

Issue 10: Depreciation

Objection

ABITA requested the Commission to continue with the depreciation approved for FY 2016-17 in MYT Order. As the depreciation claimed by Petitioner is high for FY 2017-18 and FY 2018-19, ABITA requested the Commission not to approve depreciation claimed by Petitioner.

FINER submitted that APDCL has over-projected the depreciation. FINER added that for FY 2016-17, actual depreciation booked by APDCL is Rs. 52.57 Crore as against approved depreciation of Rs. 12.97 Crore. Moreover, APDCL is claiming an amount of Rs. 69.05 Crore for FY 2018-19, instead of the approved Rs. 32.76 Crore. There are discrepancies in the claims being made by APDCL, which need to be explained by APDCL. FINER further added that the Fixed Asset Register and capitalisation of assets should be checked to this effect and no depreciation should be allowed for the grant portion.

Response of APDCL

APDCL submitted that the increase in depreciation is on account of the difference in the methodology adopted for calculation of depreciation by the Commission and

APDCL specifically regarding the treatment of opening equity/Government contribution as Grant by the Commission but the same is treated as equity by APDCL.

APDCL submitted that it has considered the funding from Government of Assam as promoters' contribution as part of Shareholder's funds/equity, while Government Grant has been treated as capital receipt and taken to Capital Reserve.

Commission's View

The Commission has allowed the depreciation for FY 2016-17 to FY 2018-19 as per the methodology considered in the MYT Order dated March 31, 2017. The issue of disallowance of depreciation on consumer contribution/grants has been settled several times by the Commission. 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. The Commission has accordingly disallowed depreciation on grant funded assets.

Issue 11: Interest on Loan

Objection

FINER submitted that APDCL has proposed the figures of Interest on Loans based on the progress of R-APDRP schemes, without any linkage to the Gross Fixed Assets, and without giving any consideration to the MYT Regulations, 2015 and the methodology followed by the Commission in approving interest costs in previous Orders. FINER requested the Commission not to consider any unjustified demand of APDCL and allow interest expenses as per the methodology adopted in the past and in line with the MYT Regulations, 2015.

ABITA observed that APDCL has considered the revised opening balances as proposed in the true up for FY 2016-17 and has rather considered all interest and finance charges as per the accounts, which is not in line with MYT Regulations, 2015. ABITA requested the Commission to direct APDCL to submit the details with respect to funding of capitalised assets. ABITA requested the Commission to consider the MYT approved values for FY 2017-18 and FY 2018-19 and consider any impact at the time of truing up for the respective years.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

Commission's View

The Commission has allowed the interest expenses on normative basis on the same principle as adopted in the MYT Order and in accordance with the provisions of MYT Regulations, 2015. 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 from the Gross opening normative loan as on April 1, 2016. The Commission has not considered the impact of penal interest in the normative computation of interest on loan capital.

The detailed rulings of the Commission for approval of interest on long-term loan for FY 2016-17, FY 2017-18 and FY 2018-19 have been elaborated in Chapter 4, Chapter 5 and Chapter 6, respectively, of this Order.

Issue 12: Interest on Working Capital

Objection

FINER submitted that as per the MYT Regulations, 2015, the Interest on Working Capital (IoWC) has to be allowed at RBI interest rate as on 1st April of the financial year for which the Licensee files the Petition for ARR and tariff, plus one percent. FINER added that approved interest rate of 12.8% should be revised, as the interest rates has fallen considerably in recent times all over, after introduction of MCLR.

Response of APDCL

APDCL has submitted the revised calculation of IoWC based on the rate of interest allowed as per MYT Regulations 2015.

Commission's View

The Commission has approved the IoWC in accordance with the MYT Regulations, 2015. The interest rate for working capital has been considered as SBI Base Rate as on 1st April for respective year plus 350 basis points, in accordance with the MYT Regulations, 2015. The detailed rulings of the Commission for approval of IoWC for

FY 2016-17, FY 2017-18 and FY 2018-19 have been elaborated in Chapter 4, Chapter 5 and Chapter 6, respectively, of this Order.

Issue 13: Provision for Bad Debts

Objection

ABITA requested the Commission not to allow any provisioning towards bad and doubtful debts as this in a manner is passing inefficiency of the utility to the honest and paying consumers. APDCL should make all efforts to collect the dues towards non-paying consumers and shortfall be offset by the profits (ROE), which is allowed to be recovered from the consumers.

Response of APDCL

APDCL submitted that for FY 2016-17, Bad and Doubtful Debts are claimed as per Audited Statement of Accounts and as per the MYT Regulations, 2015.

Commission's View

The Commission has allowed APDCL's claim against Provision for Bad & Doubtful Debts, as the same is lower than that the ceiling allowable in accordance with the MYT Regulations, 2015, as elaborated in Chapter 4 of this Order.

Issue 14: Return on Equity

Objection

ABITA requested the Commission to allow ROE for FY 2016-17 as per the equity considered in the MYT Order. ABITA further added that transfer of equity balance of ASEB to APDCL does not result in any creation of assets, therefore, no return on equity shall be allowed on the same.

FINER submitted that APDCL is claiming higher Return on Equity (RoE) than that approved for each year, however, as there is no capitalization funded partially by equity, the increase in the claim is neither logical nor supported by appropriate reasoning. FINER requested the Commission to disallow such false claims of APDCL.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

Commission's View

The Return on Equity has been allowed in accordance with the provisions of MYT Regulations, 2015 based on the actual equity addition towards actual capitalisation in FY 2016-17 and approved capitalisation for FY 2017-18 and FY 2018-19. The detailed rulings of the Commission regarding Return on Equity for FY 2016-17, FY 2017-18 and FY 2018-19 have been elaborated in Chapter 4, Chapter 5 and Chapter 6, respectively, of this Order.

Issue 15: Non-Tariff Income

Objection

ABITA submitted that it has projected the Non-Tariff Income assuming the escalation of 5% year on year increase for FY 2017-18 and FY 2018-19.

Response of APDCL

APDCL has projected the Non-Tariff Income for FY 2017-18 and FY 2018-19, by escalating the actual Non-Tariff Income of FY 2016-17 with 5% escalation rate, which is reasonable given the past trend also.

Commission's View

The Commission has considered actual Non-Tariff Income for FY 2016-17 based on the audited accounts. The Commission has considered 5% annual increase in the Non-Tariff Income for FY 2017-18 and FY 2018-19 based on growth rate witnessed in past years. The detailed rulings of the Commission for approval of NTI for FY 2016-17, FY 2017-18 and FY 2018-19 have been elaborated in Chapter 4, Chapter 5 and Chapter 6, respectively, of this Order.

Issue 16: Open Access and Cross Subsidy Surcharge (CSS)

Objection

FINER submitted that APDCL has not given any proposal for determination and methodology for open access charges, Cross Subsidy Surcharge (CSS) and Wheeling Charge in the present Petition. FINER proposed that the Commission may follow the formula for determination of CSS as per the earlier formula stipulated in Tariff Policy, 2006 or Tariff Policy, 2016 whichever is lower.

Star Cement Ltd. (SCL) submitted that the Commission had considered ABR of Rs. 8.73/KWh calculated on Average Cost of Supply (ACoS) of Rs. 7.42/kWh, which is the average for all consumer mix from LT to HT, and not the average of voltage-wise cost of supply as mentioned in the Tariff Policy. This has resulted in very high CSS of Rs. 1.31/kWh, which is not applicable if the Tariff is determined for 220 kV voltage category. SCL further added that considering ABR of Rs. 5.41/kWh for 220 kV category and 4.59/kWh Cost of Supply at 220 kV network, CSS at 220 kV works out to Rs. 0.82/kWh instead of Rs. 1.31/kWh. SCL requested the Commission to consider that the level of CSS should not be same at 33 kV and 220 kV network.

SCL further requested the Commission to reduce the level of CSS by 20% as guided by the Tariff Policy and also frame a trajectory to eliminate the cross-subsidy in the next 5 years.

Response of APDCL

APDCL replied that it had no comments on the computation of cross subsidy, as it is decided by the Commission.

Commission’s View

APDCL’s proposals for determination of CSS and Wheeling Charge have been elaborated in Chapter 2 and Chapter 8 of this Order. The Commission has computed the Wheeling Charges and CSS based on the same approach as adopted in the MYT Order. It is clarified that the Tariff Policy does not stipulate that the CSS has to be reduced by 20% every year.

The rationale for determining category-wise tariffs on the basis of ACoS rather than Voltage-wise Cost of Supply (VCoS) has been elaborated in Chapter 8 of this Order. As tariffs have been determined on the basis of ACoS, the CSS has to also be determined on the basis of ACoS.

The method and computation of Wheeling Charges and CSS for Open Access transactions for FY 2018-19 have been elaborated in Chapter 8 of this Order.

Issue 17: Tariff Determination

Objection

ABITA submitted that the high level of cross-subsidy for Tea Estates, which is a major industry in Assam, is hampering the viability of this industry. Further increase in tariff for Tea Estates will lead to difficulties for consumers.

ABITA submitted that in the MYT Order, the Commission has attempted to determine the VCoS based on assumptions due to lack of accurate data. ABITA requested the Commission not to wait indefinitely for accurate data and introduce VCoS in the State, which would help the Industry in reducing its high electricity costs. ABITA requested the Commission for determination of tariff based on VCoS to reduce the cross-subsidy burden on Tea Estates during FY 2018-19.

FINER submitted that APDCL has proposed sharp increase in the Demand Charge as well as Energy Charge for the industrial consumers, which is discouraging for the industrial consumers who are already being charged higher than the ACoS. FINER requested the Commission not to allow any further increase in the tariff for industrial consumers.

M/s Star Cement Ltd (SCL) requested the Commission to determine the Tariff in accordance with the VCoS as guided by the Tariff Policy. SCL submitted that it has deployed significant investments to source power at 220 kV Transmission network and reduce the system loss, but is still not receiving relief in Tariff and is treated as 33 kV HT-II consumer connected to the system. SCL proposed applicable cost of supply at 220 kV network as Rs. 4.59/kWh after considering the transmission charges, whereas the Commission has considered Rs. 6.68 /kWh as the cost of supply, which is applicable to 33 kV. SCL further submitted that in case of cost of supply of Rs. 4.59/ kWh was taken as computed by the Commission then the applicable Average Tariff at 220 kV network would be Rs. 5.41/kWh considering +18% subsidy.

FINER submitted that the Industrial and Commercial consumers have borne the brunt of excess and exorbitant tariff increases. APDCL should work on transmission lines to be upgraded to 132 kV level for Industrial consumers. FINER requested the Commission to determine separate tariff at 132 kV level for EHT category as this will also lead to substantial decrease in the loss levels and the tariff of the industrial consumers can be based on VCoS for such industrial consumers.

Grahak Suraksha Sanstha submitted that ASEB introduced the Fixed Charges in 1998 in spite of protest from the consumers. The said Fixed Charges are nothing but an indirect method of increasing the Tariff, so that, actual tariff hike per unit consumption of electricity does not appear to be high. This Fixed Charge was hiked since 1998 between 100% to 300% and now APDCL has proposed to increase the Fixed Charge by approximately 25% for different categories. Grahak Suraksha Sanstha opposes this hike and requested the Commission to disapprove the said proposal.

NESSIA submitted that with so many power interruptions and load shedding in the system, proposal for increase in Fixed Charge is not justified. NESSIA stated that Fixed Charge to the industries upto 50 kVA connection is proposed to be increased from Rs. 50 to 75 KW/month, which will work out to Rs. 2500/- to Rs. 3500/- per month, and would adversely affect the functioning of small industries. NESSIA requested the Commission and APDCL to reduce existing Fixed Charges along with power tariff.

Shri Jayanta Deka submitted that the proposed increase in tariff for Domestic A, Domestic B, Public Lighting, and Public Water Works are not reasonable and the interest of consumers and public are not taken into account while filing the Petition for revision of tariff, and as such, the Petition deserves to be set aside.

Response of APDCL

APDCL replied that it had no comments on the computation of cross subsidy, as it is decided by the Commission.

APDCL submitted that it is not opposed to voltage-wise tariff structure as long as the total revenue requirement is allowed to be recovered through suitable tariff structure.

APDCL has initiated the process of determination of VCoS and the process is in its initial phase. APDCL has initiated the collection of the feeder-wise revenue data along with the feeder-wise energy audit from the respective field offices. Steps have been taken to replace the stopped and defective meters both at consumer end and at the strategic locations (feeders/DTRs) for proper energy audit. After reconciliation of data, VCoS will be calculated accordingly. Therefore, it would not be appropriate to determine tariffs on the basis of VCoS at this point in time.

The O&M expenses have been increasing with price increase of all parameters. APDCL has not revised the Fixed Charges in last few years. However, power supply position has increased considerably in recent times. So, APDCL has proposed to charge higher Fixed Charges for various consumers. However, average per unit charges paid by consumers on account of Fixed Charges would remain same, even after the proposed increase.

Further, uncontrollable costs like power purchase cost, fuel price, etc., should be recovered speedily to ensure that future consumers are not burdened with past costs, hence, APDCL has proposed increase in the Energy Charges.

Commission's View

It is clarified that though the ACoS is the same, the category-wise tariffs are different on account of the prevalent and revised cross-subsidy, which is being reduced over time. In addition to the rebate given for supply at higher voltages, the Commission has rationalised the tariffs as a first step towards VCoS based tariff determination, as elaborated in Chapter 10 of this Order.

The Commission has determined the category-wise tariffs for FY 2018-19 in order to meet the cumulative Revenue Gap allowed for recovery in FY 2018-19, such that the cross-subsidy for most categories is within the band of ±20% of ACoS, as stipulated in the Tariff Policy, while at the same time, ensuring that no category is subjected to a tariff shock.

It is clarified that levy of Fixed Charges is clearly permitted under Section 45 of the Electricity Act, 2003, which stipulates as under:

> *"(3) The charges for electricity supplied by a distribution licensee may include*
>
> *(a) a fixed charge in addition to the charge for the actual electricity supplied;…"*

The existing levels of Fixed Charges are quite low, and the recovery of fixed costs through Fixed/Demand Charges is very low. Hence, the Commission deems it appropriate to marginally increase the Fixed/Demand Charges to help recover a higher percentage of fixed costs incurred by APDCL.

The detailed Tariff Philosophy and the approved category-wise tariffs for FY 2018-19 have been elaborated in Chapter 7 of this Order.

Issue 18: Power Factor Rebate

Objection

FINER submitted that the industrial consumers should be incentivized more, as is being done in the other States, by providing rebate for every 0.01 increase beyond 0.95 Power Factor instead of just 2% rebate between 0.95-1.00. In the proposed rebate, the industry with 0.96 power factor will have no incentive to improve its Power Factor to unity as it shall get the same rebate of 2%. FINER proposed that as the consumers are proposed to be penalized for every 0.01 fall in Power Factor below 0.85, they should be incentivized for every 0.01 improvement in Power Factor beyond 0.95 and this issue of PF penalty/rebate can also be addressed while notifying the Supply Code and can be adopted in the Tariff Order. ABITA also submitted that the rebate for Power Factor above 0.95 should be increased.

Response of APDCL

APDCL submitted that the existing Power Factor incentive of 2% should incentive the consumer to maintain the Power Factor above 0.95 and since Power Factor is a dynamic parameter and if the same is more than 1, it also leads to increase in voltage, which further leads to breakdown of equipment.

Commission's View

The Commission has already increased the rebate for Power Factor above 0.97 in the MYT Order dated 31 March, 2017, as elaborated below:

"In case average power factor as maintained by the consumer is more than 0.85 upto 0.95, a rebate of 1%; if power factor is 0.95 and above upto 0.97, a rebate of 2% and if power factor is 0.97 and above upto Unity, a rebate of 3% on Energy Charges on unit consumption shall be applicable."

Issue 19: Load Shedding

Objection

ABITA submitted that several number of interruptions occurring in a single day jeopardizes the entire manufacturing process and adversely affects the smooth functioning of the plant and machinery. ABITA requested the Commission to direct APDCL to regularly record, maintain and submit information with respect to reliability indices like Customer Average Interruption Frequency Index (CAIFI) and Customer

Average Interruption Duration Index (CAIDI) to the Commission, and a penalty mechanism should also be included in the tariff mechanism in case APDCL is not able to meet the CAIDI and CAIFI norms.

During the public hearing FINER requested that Fixed Charges should be pro-rated as per the energy available during day or month rather than charging the fixed charge for the whole day or month. FINER further added that APDCL should provide necessary power during the peak hours rather than doing load shedding.

Grahak Suraksha Sanstha submitted that the Commission should direct APDCL to provide at least 24 hours' notice to consumers likely to be affected, before carrying out its planned maintenance activities.

Response of APDCL

APDCL submitted that under normal shortage of power, information is conveyed to the consumers through notifications in leading dailies like The Assam tribune. Similar notices are also published at least 24 hours in advance during maintenance shutdown and planned load shedding in every Circle. However, due to uncertainty of grid availability during the last few years, it was difficult to make a scheduled load shedding plan. APDCL added that the situation has improved considerably and is expected to be resolved in the coming years.

Commission's View

The Commission has notified the AERC (Distribution Licensees' Standards of Performance) Regulations, 2004 [SOP Regulations], as amended from time to time, which specify the standards to be maintained with regard to quality and reliability of supply. In accordance with these SOP Regulations, APDCL is required to compile the data on CAIFI and CAIDI at each sub-station on a monthly basis for each Circle to ascertain Circle-wise reliability and submit the same to the Commission.

It may be noted that the Fixed Charges are intended to recover a part of the fixed costs of APDCL, and cannot be linked to the consumption.

Issue 20: Audited Annual Accounts

Objection

ABITA submitted that as per the MYT Regulations 2015, the Audited Accounts have to be considered at the time of truing up for FY 2016-17, which have not been submitted by APDCL.

FINER submitted that no true up for FY 2016-17 should be allowed in the tariff fixation for FY 2018-19 in the absence of Audited Annual Report. FINER added that in the truing up Petition filed by APDCL for FY 2014-15 and FY 2015-16, the notes to accounts indicated the majority of the information was not given by APDCL to its Auditors, irregular practices have been followed by APDCL, many complaints have not been resolved, etc. Expecting the similar trend in the Auditors Report for FY 2016-17, FINER added that if the Audited Accounts are not properly made available or not accurate, the entire true up process become nugatory.

Response of APDCL

APDCL has submitted the Audited Annual Accounts to the Commission and also uploaded the same on APDCL's website.

Commission’s View

The truing up for FY 2016-17 has been done based on the Audited Accounts, duly audited by the Statutory Auditors and in accordance with the MYT Regulations, 2015, after prudence check. If there are any subsequent comments from the CAG, the same have to be addressed by APDCL in the subsequent periods.

Issue 21: Prior Period Expenses/Income

Objection

ABITA has considered interest income for prior period and power purchase expenses. ABITA requested the Commission to undertake a detailed scrutiny of prior period expenses/(income) before allowing the same.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

Commission’s View

Prior Period expenses/(income) have been considered based on the methodology adopted in previous True-up Orders, i.e., prior period expense/income has been allowed only if the expense has been allowed on actual basis in the past.

Issue 22: Other/ Miscellaneous Income

Objection

ABITA has proposed the Other/Miscellaneous Income based on actuals in FY 2016-17 (after excluding the income from sale of surplus power) and considering the escalation of 5%, which works out to Rs. 152.03 Crore and 159.63 Crore for FY 2017-18 and FY 2018-19, respectively.

Response of APDCL

APDCL submitted that the details have been submitted to the Commission, and the Commission may decide on the same.

Commission's View

The Other/Miscellaneous Income for FY 2017-18 and FY 2018-19 has been considered by escalating the actual Income in FY 2016-17 by 5% for all heads, except for income from sale of surplus power, which has been estimated based on H1 actuals for FY 2017-18, and considered as Nil in FY 2018-19, as no surplus energy has been provided for in the approved Energy Balance. The actual income from sale of surplus, if any, shall be trued up based on actuals.

Issue 23: High Tariff for Tea Category

Objection

ABITA submitted that for FY 2017-18, tariff applicable to Tea category is Rs. 9.31 /kWh as against the approved ACoS of Rs. 7.42 /kWh, i.e., average revenue realisation is 125% of the ACoS. The average revenue realisation for HT-I and HT-II categories is around 112-118%. As there is a projected revenue surplus of Rs. 774 Crore, ABITA requested the Commission to disallow any increase in tariff for Tea, Coffee & Rubber category for FY 2018-19.

ABITA further requested the Commission to not consider any increase in fixed charges for the Tea, coffee & Rubber categories as other States like Punjab, Haryana, and

Maharashtra are reducing the tariff for HT and Industrial consumers, in order to retain these consumers. The proposed increase of Rs. 20/kVA/month in Fixed Charges and 75 paise per kWh increase in Energy Charges for Tea, Coffee & Rubber category shall unnecessary burden the consumers and affect the viability of industry.

All India Manufacturers Organisation, Assam (AIMO) submitted that wage increase has affected leaf Tea factories, and the proposed increase in electricity charges will directly impact the finances of factories and will impact livelihood of masses in the industry. AIMO requested the Commission to levy fixed charge on the basis of hours of the power supply. The proposed rise in fixed charges is unjustifiable for HT Tea industry, as it is the largest revenue generator for APDCL. AIMO also requested the Commission to reject the tariff proposal for increase in Fixed Charges.

Response of APDCL

The O&M expenses have been increasing with price increase of all parameters. APDCL has not revised the Fixed Charges in last few years. However, power supply position has increased considerably in recent times. So, APDCL has proposed to charge higher Fixed Charges for various consumers. However, average per unit charges paid by consumers on account of Fixed Charges would remain same, even after the proposed increase.

Commission's View

The Fixed Charges and Energy Charges for different consumer categories have been approved in such a manner so as to reduce the cross-subsidies and also meet the revenue requirement of APDCL. The detailed Tariff Philosophy is elaborated in Chapter 7 of this Order.

Issue 24: ToD Tariff for Tea, Coffee and Rubber Category

Objection

ABITA requested the Commission to provide higher discount for the consumers consuming electricity during off-peak hours as this would help in better management of APDCL's load and reduce the losses as the realisation from sale of any surplus power during the night time would be considerably lower.

Response of APDCL

APDCL has not commented on this suggestion.

Commission's View

The Commission has increased the rebate available to consumers for consumption during night off-peak hours, in order to further incentivise consumers who can shift their consumption, to shift to the night off-peak hours, which will result in improved utilisation of the surplus energy available during night off-peak hours, as compared to sale of the same on the Power Exchanges, at much lower rate. The detailed Tariff Philosophy is elaborated in Chapter 7 of this Order.

Issue 25: Regarding efficient, simplified and transparent Distribution system

Objection

Grahak Suraksha Sanstha submitted that there is a need to simplify the procedures for getting power connection, providing quality power, efficient and prompt billing system, transparent method of Tariff Calculations and speedy dispute redressal mechanical, etc.

Response of APDCL

The cost parameters like cost of generation and prices of all commodities has shown rising trend. The cost of all parameters of the Distribution business has also increased manifold in the recent years. If the cost of supply of APDCL is not allowed to be recovered, the ultimate effect will be on the consumers. APDCL will be able to serve its consumers in the best way provided its financial position is improved.

Commission's View

While the above issues are not directly related to the present ARR and Tariff Petition filed by APDCL, there is no doubt that the issues raised are very relevant, and APDCL should take all efforts to simplify the procedures for getting power connection, provide quality power, have an efficient and prompt billing system, and speedily redress the disputes.

Issue 26: Poor power supply position for Tea Category

Objection

Grahak Suraksha Sanstha submitted that Tea category is major source of revenue to the State as well as power sector. However, the power supply position to Tea Category is pathetic and they are forced to depend on alternative arrangements like diesel run generators.

Response of APDCL

The power supply scenario for Tea Estates had improved in the recent years, however, there are still some areas in which more improvement is required and APDCL is taking steps in this regard.

Commission's View

APDCL should expedite the implementation of the scheme for separation of the feeders for supply to the Tea Estates and the rural areas, to improve the quality of power supply to the Tea industry.

Issue 27: Commercial, Industrial and Domestic tariffs

Objection

Grahak Suraksha Sanstha submitted that the commercial and industrial consumers recover the cost of electricity from their consumers, who purchase goods and avail services. However, domestic consumers do not have such scope for recovery of the electricity cost, therefore, special consideration and liberal view of the Commission is needed while fixing tariff for this category of consumers.

Response of APDCL

APDCL has not submitted any comments on the suggestion.

Commission's View

The Commission has determined the category-wise tariffs in accordance with the EA 2003, APTEL Judgments, and applicable Policies. Presently, the domestic category is subsidised, and the Average Billing Rate is lower than the ACoS, whereas the commercial and industrial categories are subsidising categories whose Average Billing Rate is higher than the ACoS.

Issue 28: Quality of Power and services to consumers

Objection

Grahak Suraksha Sanstha submitted that as per the provisions of Section 61(d) of the EA 2003, it is the responsibility of Distribution Licensees to protect the interest of consumers. The Distribution Licensee has failed miserably in safeguarding the interest of the consumers in providing quality and quantity services.

NESSIA submitted that power sector reforms have been undertaken by Government of India to provide quality power to consumers. In the last Tariff revision, APDCL stated that steps have been taken to streamline and improve the power services to consumers, however, on the contrary, SSI and domestic consumers are the worst sufferers of prolonged unscheduled load shedding over last 5 years, frequent power interruption and poor quality of power.

NESSIA added that power supply is an essential service and the Commission should advise Government of Assam for providing additional funding as grant on regular basis to bailout APDCL.

Response of APDCL

The planned maintenance and shortage of power information is conveyed through notifications in Dailies. However, sudden variations in real time demand and availability of grid is causing unplanned load shedding. However, the situation has improved considerably at present. APDCL denied the statement of the Respondent, and submitted that the Power scenario has improved which results in lesser interruption and load shedding.

Further, many of the services are already introduced successfully by APDCL like online payment system, service connection, etc.

Commission's View

Apart from the planned load shedding due to shortage of power, the consumers also face inconvenience due to low voltages and frequent interruptions/tripping for short durations. APDCL should therefore, look into the area specific problems and take remedial measures for maintenance of the lines and strengthening of the infrastructure by setting up required 33/11 kV or 11/0.4 kV sub-stations.

Issue 29: Installation of Pre-paid meters

Objection

Grahak Suraksha Sanstha suggested that the process of installation of prepaid meters should be expedited for all the Government offices and commercial, industrial, agricultural as well as domestic consumers, to get rid of the defaulters.

Response of APDCL

APDCL is exploring the possibilities of installing pre-paid meters in all Government establishments and has started initiatives with the Govt. of Assam. APDCL is trying to fix the drawbacks of pre-paid meters and is trying to upgrade this with smart meters in this process.

Commission's View

The Commission is of the view that proper metering of the power sold to the consumers is key to the viability of the Distribution Company and therefore, APDCL should examine all the pros and cons while installing different types of meters.

Issue 30: Collection Efficiency

Objection

NESSIA submitted that realisation of outstanding bills of Government establishments, Capital Complex, etc., amounting to Rs. 200 Crore besides Hindustan Paper Corporation, Nagaon and Cachar Paper Mill, Tea Corporation, etc., are also due.

Response of APDCL

APDCL submitted that monthly bills are raised against all Government connections. The Government consumers are now paying their dues on regular basis. Regarding non-payment of dues by Hindustan Paper Corporation, disconnection notice has already been served.

Commission's View

It may be noted that the ARR and tariff are determined on accrual basis, i.e., the revenue is considered based on the amount billed rather than the amount collected, hence, the consumer is not adversely affected directly, due to non-collection of arrears. At the same time, APDCL should ensure that the amounts billed are collected expeditiously, as non-realisation of revenue will cause cash-flow issues leading to increase in working capital requirement and may adversely affect the quality of services.

Issue 31: Tariff Procedure

Objection

Shri Jayanta Deka submitted that Section 61 of the EA 2003 provide Guidelines to the Commission for determination of the Tariff and these guidelines should be followed scrupulously by APDCL. However, simple perusal of the Petitions filed by APDCL shows that APDCL pays scant regard to the Guidelines under Section 61 of the EA 2003.

Response of APDCL

APDCL submitted that tariff determination has been carried out as per the Guidelines under Section 61 of the EA 2003 and related Regulations notified by the Commission.

Commission's View

The ARR of APDCL and category-wise tariffs have been determined in accordance with the EA 2003 and the MYT Regulations, 2015 notified by the Commission, as well as the Tariff Policy notified by the Government of India.

Issue 32: Safety and standards

Objection

Shri Jayanta Deka submitted that during the last year, around 40-50 persons lost their precious life due to electrocution and huge amount was drained out to pay compensation to the victims. It appears that from the report published in the newspapers that most of the incidents took place due to the negligence, snapping of the electrical wires, etc., which are sub-standard. Therefore, the loss sustained by APDCL cannot be recovered from the consumer by enhancing the electricity tariff.

Response of APDCL

APDCL submitted that it has been taking all efforts to comply with the provisions of the EA 2003. Required steps have been taken under the relevant rules of safety. Different types of protections in different level of distribution networks are being used for safety of the system as well as life and property of the public. APDCL denied that sub-standard wires or equipment are used in its infrastructure.

Commission's View

APDCL should ensure that it complies with all the safety Regulations and there is no loss of life or property due to the negligence or failure of APDCL to meet the standards. While truing up for FY 2016-17, the Commission has not allowed pass through of the A&G expenses of Rs. 0.38 lakh incurred by APDCL towards compensation to outsiders, as such expenses incurred by APDCL on account of its negligence or poor safety of its installations have to be borne by APDCL and cannot be passed on to the consumers.

Issue 33: Proposal for Consumer Advocacy Forum and Fund for Proposed Forum in the ARR

Objection

During the public hearing, Shri Khanindra Talukdar submitted that Mrs. Mallika Sharma Bezbaruah has been participating as Respondent and filing Review Petitions before CERC and APTEL against Petitions filed by Central Utilities. The Review Petitions filed before CERC and APTEL have been rejected because of the non-payment of filing fee. It is true that the common consumer canot pay such enormous filing fee at CERC and APTEL. However, Mrs. Mallika Sharma has been able to reduce tariff of Central utilities within constrained funding. In view of the above, Mrs. Mallika Sharma and Bidyut Grahak Manch requested the Commission to create a Consumer Advocacy Forum provide funds for the same through the ARR, which may be utilised for the purpose of challenging the cases before CERC, APTEL and Supreme Court which are located at Delhi. A fund of at least Rs. 30 Lakh may be created by provisioning in the ARR of APDCL or from budgetary fund from Government of Assam.

Response of APDCL

No response has been filed by APDCL on this issue.

Commission's View

The Commission will examine the suggestion and take appropriate decision in this regard.

Issue No. 34: Load Factor Rebate

Objection

FINER submitted that many Distribution Licensees in India, have started giving a load factor rebate for maintaining load factor above certain levels. This helps the Distribution Licensees in planning the load requirement and optimum utilisation of resources may happen, with negligible shortages. FINER requested for incentivising the Industry for maintaining the high load factor and thereby increasing the efficiency performance of the system.

Response of APDCL

No response has been submitted by APDCL.

Commission's View

Two-part tariff has an in-built incentive for higher load factor. However, the Commission shall examine the suggestion.

Issue No. 35: Timely payment and Bank Guarantee

Objection

FINER submitted that consumers may be given discount for timely payment of dues. FINER added that if consumers get bills within 1st week of month, and pays it by 10th of the succeeding month, the consumer should get 1% of bill as incentive, as payment of bills within first week will also ease out the cashflow position of APDCL.

FINER requested that Bank Guarantees should be allowed to be given as security deposit.

Response of APDCL

APDCL has not submitted any response to this issue.

Commission's View

The Commission is of the view that giving rebate for timely payment will impact the tariff. The requirement of giving security deposit in cash is as per the AERC (Electricity Supply Code) Regulations, 2017.

4 Truing up for FY 2016-17

4.1 Methodology for Truing Up

4.1.1 The Commission had approved the ARR for APDCL for the Control Period from FY 2016-17 to FY 2018-19 in the MYT Order dated March 31, 2017.

4.1.2 APDCL submitted the Truing-up Petition for FY 2016-17 based on audited annual accounts and provisions of MYT Regulations, 2015, wherever applicable. APDCL has sought true-up for FY 2016-17, with the Revenue Gap/(Surplus) to be recovered from the consumers during FY 2018-19.

4.1.3 The Commission approves the cost parameters through approval of the Annual Revenue Requirement at the beginning of the year, keeping in view the data available at that point of time. The cost approvals for each of the items are based on projection of expenses and revenue before beginning of the year and the provisions of MYT Regulations, 2015, wherever applicable. The projections might vary over the course of the year.

4.1.4 The actual cost/values for certain elements/parameters may vary as against the approved cost during the year due to various controllable and uncontrollable factors. The Licensee may end up with higher or lower expenditure, as the case may be, at the end of the year as against the approved cost.

4.1.5 The Commission analyses the actual expenditure for the previous year/years based on the audited Annual Accounts of the Licensee and allows/disallows the recovery of the actual expenditure through the ensuing year's tariff, subject to prudence check.

4.1.6 In this Chapter, the Commission has carried out the Truing up for FY 2016-17 based on the submissions of APDCL, audited annual accounts for FY 2016-17 and provisions of MYT Regulations, 2015.

4.1.7 In this Chapter, the Commission has analyzed all the elements of actual expenditure and revenue of APDCL for FY 2016-17 and undertaken the truing-up of expenses and revenue in accordance with Regulation 10.1 of the MYT Regulations, 2015. The Commission has approved the sharing of gains and losses on account of controllable factors between APDCL and the consumers, in accordance with Regulation 13 of the

MYT Regulations, 2015.

4.2 Energy Sales

4.2.1 APDCL submitted the actual category-wise energy sales in its Truing Up Petition and stated that the actual sales were 6526 MU for FY 2016-17, as against approved sales of 6686 MU for FY 2016-17, as shown in the Table below:

Table 6: Energy Sales for FY 2016-17 as submitted by APDCL (MU)

Consumer Category	MYT Order	Actual	% Increase/ (Decrease)
Jeevan Dhara	493	487	-1.25%
Domestic A Total	2612	2639	1.05%
Domestic-B above 5 kW to 20 kW	256	261	1.91%
Commercial Load above 0.5 to 20 kW	633	631	-0.39%
General Purpose Load upto 20 kW	124	117	-5.45%
Public Lighting	20	17	-17.00%
Agriculture upto 7.5 hp	14	15	7.42%
Small Industries Rural upto 20 kW	59	64	7.86%
Small Industries Urban	31	33	5.33%
Temporary	6	7	24.21%
LT Total	**4248**	**4270**	**0.53%**
HT Domestic 25 kVA and above	45	36	-20.57%
HT commercial 25 kVA and above	358	375	4.81%
Public Water Works	68	87	28.32%
Bulk Supply Govt. Educational Inst.	86	86	-0.10%
Bulk Supply Others	398	391	-1.67%
HT Small Industries upto 50 kVA	23	26	11.42%
HT Industries-I 50 kW to 150 kVA	83	78	-5.67%
HT Industries-II above 150 kVA	774	617	-20.30%
Tea Coffee & Rubber	427	426	-0.26%
Oil & Coal	154	112	-27.29%
HT Irrigation Load above 7.5 HP	22	21	-2.56%
HT Total	**2436**	**2256**	**-7.48%**
TOTAL	**6684**	**6526**	**-2.39%**

APDCL submitted that from the above, it can be observed that the LT sale has experienced minor increase of 0.53% as compared to the approved sales, while there has been a significant decline of 7.48% in HT Sales over the approved quantum. One of the significant reasons for lower HT sales is availing of Open Access facility by eligible HT-II category consumers, who have consumed 350 MU under Open Access during this period. APDCL submitted that there has been a significant increase in LT sales over previous year's levels, on account of the massive rural electrification undertaken through various ongoing flagship programs like RGGVY/DDUGJY of Govt. of India. Such programmes have led to manifold increase in domestic consumers in a small span of time. Further, the supply hours to rural areas have also increased in the last few years owing to greater availability of power and the vision of moving towards 24x7 Power for All. This has resulted in increased sales for LT categories significantly, especially for Jeevan Dhara and small domestic consumers.

APDCL requested the Commission to approve the actual retail energy sales of 6526 MU (excluding OA consumption) for true-up, since it is uncontrollable.

Commission's View

The Commission has accepted the actual category-wise sales in the true-up for FY 2016-17, as submitted by APDCL. The Commission has verified that the sales to Jeevan Dhara category are lower than the ceiling consumption limit of 30 units per month per consumer.

Thus, the category-wise sales approved by the Commission after true-up for FY 2016-17, is shown in the Table below:

Table 7: Energy Sales for FY 2016-17 approved by the Commission (MU)

Consumer Category	MYT Order	Actual	Approved after True-Up
Jeevan Dhara	493	487	487
Domestic A Total	2612	2639	2639
Domestic-B above 5 kW to 20 kW	256	261	261
Commercial Load above 0.5 to 20 kW	633	631	631
General Purpose Load upto 20 kW	124	117	117
Public Lighting	20	17	17
Agriculture upto 7.5 hp	14	15	15

Consumer Category	**MYT Order**	**Actual**	**Approved after True-Up**
Small Industries Rural upto 20 kW	59	64	64
Small Industries Urban	31	33	33
Temporary	6	7	7
LT Total	**4248**	**4270**	**4270**
HT Domestic 25 kVA and above			
HT commercial 25 kVA and above	45	36	36
Public Water Works	358	375	375
Bulk Supply Govt. Educational Inst.	68	87	87
Bulk Supply Others	86	86	86
HT Small Industries upto 50 kVA	398	391	391
HT Industries-I 50 kVA to 150 kW	23	26	26
HT Industries-II above 150 kVA	83	78	78
Tea Coffee & Rubber	774	617	617
Oil & Coal	427	426	426
HT Irrigation Load above 7.5 HP	154	112	112
HT Temporary	22	21	21
HT Total	**2436**	**2256**	**2256**
TOTAL	**6684**	**6526**	**6526**

4.2.2 **Accordingly, the Commission approves the total energy sales of 6526 MU in the Truing up for FY 2016-17.**

4.3 Distribution Loss

4.3.1 APDCL, in its Petition, submitted that it could not achieve the approved distribution loss of 17.35%, and the actual distribution loss was 17.89% in FY 2016-17. APDCL submitted that it is getting difficult to reduce the Distribution Loss at the same rate as achieved in the past years. The HT: LT ratio is getting adverse every year as LT sales are increasing on account of extensive rural electrification and HT sales are not increasing at the same rate as it is impacted due to other factors like open access, lack of industrial growth in the State, etc.

4.3.2 APDCL submitted that HT: LT ratio has a key impact on the Distribution Losses and with the present trend of inverse HT: LT ratio, there is a need to revisit the Distribution Loss target. APDCL requested the Commission to review the Distribution Loss targets based on the actual achievements and the above concerns, in the truing up process.

4.3.3 APDCL submitted that in predominantly urban areas as well as areas without any social disturbances, it was able to achieve Distribution Loss far below the approved loss levels. However, in some areas where the situation is beyond the Licensee's control, the Loss is higher than the approved loss level. Further, consumer behavior of certain areas under APDCL is at variance from others. Frequent bandhs as well as perennial natural calamities in some part of the State affects the performance in these areas, resulting in higher losses.

4.3.4 APDCL submitted that the approved loss level for FY 2016-17 works out to 17.66%, if the approved loss matrix is restated for the actual sales mix, as shown in the Table below:

Voltage	Total Sale (MU)	LV	LV lines	11/0.4 SS	11kV lines	33/11kV SS	33 kV Lines
Element wise incremental % loss			11.14%	2.47%	4.80%	1.78%	4.38%
LV	4270	4270	4806	4927	5176	5269	5511
11kV	1639			1638.7	1721	1752	1833
33 kV	617					617	645
Total	6526					**Overall Distribution Loss (%)**	**17.66**

Commission's View

4.3.5 APDCL was asked to justify its contention that the Distribution Loss would increase with the worsening of the HT:LT ratio. APDCL submitted the relationship between the HT:LT ratio and the Distribution Losses, as shown in the following Table:

T

able 8: HT:LT ratio and Distribution Losses as submitted by APDCL (MU)

FY	LT Sales (MU) (%)	HT Sales (MU) (%)	Distribution Loss (%)
2008-09	1489 (49%)	1555 (51%)	24.32
2009-10	1573 (48%)	1674 (52%)	26.06
2010-11	1769 (50%)	1767 (50%)	25.44
2011-12	2026 (51%)	1944 (49%)	26.61
2012-13	2176 (52%)	2029 (48%)	25.85
2013-14	2593 (54%)	2170 (46%)	24.11
2014-15	3228 (59%)	2257 (41%)	21.14
2015-16	3886 (63%)	2313 (37%)	18.12
2016-17	4270 (65%)	2256 (35%)	17.89

4.3.6 As can be seen from the above Table, APDCL's contention that the worsening HT:LT ratio increases the Distribution Losses, is not borne out by APDCL's own performance over the last three-four years. Though the HT:LT ratio has worsened from 54:46 in FY 2013-14 to 59:41 in FY 2014-15 to 63:37 in FY 2015-16 and 65:35 in FY 2016-17, APDCL has reported annual reduction of around 3% in Distribution Losses from 24.11% in FY 2013-14 to 21.14% in FY 2014-15 to 18.12% in FY 2015-16 to 17.89% in FY 2016-17.

4.3.7 As regards APDCL's submission that the approved loss level for FY 2016-17 works out to 17.66%, if the approved loss matrix is restated for the actual sales mix, the Commission is of the view that APDCL has assumed certain losses for intermediate levels, which are not approved by the Commission. Further, the Distribution Loss reduction trajectory was originally approved in the Business Plan for a different consumption mix. Also, the approved Loss levels cannot be restated based on actual sales mix. Hence, the Commission has considered the approved Distribution Loss level for FY 2016-17 of 17.35%, for the purpose of truing up for FY 2016-17, as shown in the Table below:

Table 9: Distribution Loss approved by Commission for FY 2016-17

Year	MYT Order	APDCL Petition	Approved after True-Up
FY 2016-17	17.35%	17.89%	17.35%

Accordingly, the Commission retains the approved Distribution Loss of 17.35% in the truing up for FY 2016-17. The efficiency loss on account of higher than approved Distribution Losses, in terms of excess power purchase expenses,

have been shared between APDCL and the consumers, as discussed subsequently in this Chapter.

4.4 Energy Requirement

4.4.1 APDCL submitted that the total energy requirement for sale of 6526 MU to retail consumers in FY 2016-17 was 8356 MU excluding open access consumption, against the approved energy requirement of 8510 MU.

Commission's View

4.4.2 In the truing up for FY 2016-17, the Commission has approved the energy requirement on the basis of approved sales, approved Distribution Losses, Transmission Loss approved for AEGCL, and proportionate PGCIL Losses on external power purchase for the respective year.

4.4.3 It may be noted that the quantum of Surplus Power sold outside the State has not been considered, while computing the Energy Balance, and the revenue from the same has been considered under Other Income, as discussed subsequently in this Order.

4.4.4 The gross Energy Requirement for FY 2016-17 as approved by the Commission in the MYT Order, as submitted by APDCL, and as approved in the truing up are shown in the following Table:

Table 10: Energy Requirement approved by the Commission after True-Up for FY 2016-17

Particulars	Unit	MYT Order	APDCL Petition	Approved after True-Up
Energy Sales	MU	6684	6526	6526
Distribution Loss	%	17.35%	17.89%	17.35%
Energy Requirement at Distribution Periphery T<>D	MU	8,087	7,948	7,896
Intra-State (AEGCL) Transmission Loss	%	3.54%	3.54%	3.54%
Energy Input to Transmission System	MU	8,384	8,239	8,186
Inter-State (PGCIL) Pooled Loss	%	1.48%	1.40%	1.40%
Total Energy Requirement	MU	**8,510**	**8,356**	**8,302**

Therefore, the Commission approves Energy Requirement of 8302 MU for sale of 6526 MU to retail consumers in the truing up for FY 2016-17.

4.5 Power Purchase

4.5.1 APDCL submitted that it has incurred an amount of Rs.3810.28 Crore against the approved power purchase cost of Rs. 3447.08 Crore for FY 2016-17. APDCL submitted that this increase in power purchase cost is on account of the following reasons:

a) increase in total quantum of power purchase from allocated sources at higher rate as compared to approved quantum;

b) APDCL has to procure power from additional sources, i.e., through bilateral trading, Energy Exchange, etc., to mitigate the higher demand particularly in peak hours.

4.5.2 APDCL submitted that the power purchase cost for FY 2016-17 comprises the basic power purchase cost, transmission charges payable to AEGCL (inclusive of PGCIL charge and Special Charge on BST), and submitted the comparison of approved and actual source-wise purchase quantum and cost.

Commission's View

4.5.3 APDCL was asked to submit the status of Renewable Power Obligation (RPO) compliance for FY 2016-17. APDCL submitted that in FY 2016-17, APDCL purchased Non-Solar Renewable Energy Certificates (RECs) worth Rs. 10.07 crore. It is observed that APDCL has not achieved the RPO target for the respective year, despite allowance of cost towards purchase of RECs in the Tariff Order. There is a shortfall in Non-Solar Renewable Energy (RE) purchase of 33.88 MU and shortfall of Solar RE purchase of 14.93 MU. The Commission shall take up this matter of non-compliance of the RPO target separately, in accordance with the RPO Regulations.

4.5.4 APDCL was asked to submit the justification for increased purchase from allocated sources and the compulsion to purchase power from such sources at higher rate, as compared to the approved quantum. APDCL explained that 40% of the total additional quantum over the approved quantum is attributable to must run hydro stations of CPSU, viz., NEEPCO and NHPC. APDCL added that it is a well-known phenomenon that with additional rainfall, the demand in this region goes down due to drop in atmospheric temperature leading to lower consumption. In such a scenario, APDCL has no other option but to bear the burden of additional energy from MUST RUN stations with export through DSM/IEX at low prices. APDCL added that 50% of the total additional quantum over the approved quantum is attributable to procurement from thermal stations of OTPC and NTPC (BgTTP). APDCL submitted that by Regulations, APDCL is required to procure its share from CPSU projects subject to technical minimum level of respective stations. However, with gradually increasing demand in peak hours, during most part of the year APDCL has to resort to procurement through bilateral trading, through competitive bidding/PSA, as well as IEX platform. Most of the time, additional generation from CPSU Units with allocated share falls short of catering to the demand in peak hours. However, compulsory scheduling from CPSU generation in off peak hours lead to unwarranted surplus.

4.5.5 APDCL was asked to justify the difference between approved and actual average power purchase rate for Kopili HEP (Rs. 2.06/KWh vs Rs.1.13 /KWh) and OTPC (Rs. 3.61/KWh vs. Rs. 2.85/KWh). APDCL explained that the Tariff for OTPC for the Control Period from FY 2013-14 to FY 2018-19 was revised retrospectively on 30.03.2017 vide CERC Order on Petition No. 129/GT/2015. In accordance with Accounting Standards (AS) 5, the amount pertaining to the period till 31 March, 2017 was charged to expenses in FY 2016-17. For Kopili HEP (NEEPCO), the additional cost pertains to NERLDC charges, etc., and Delayed Payment Surcharge (DPS). The rate pertaining to regular energy bills (excluding DPS) is Rs. 1.26 per unit.

4.5.6 The Commission has reconciled the amounts shown by APDCL as cost of power purchase from APGCL and Transmission Charges payable to AEGCL, against the amount of revenue shown by APGCL and AEGCL, for FY 2016-17, and observed that there are certain discrepancies in the amounts claimed as expenses by APDCL and the amounts shown as revenue by APGCL and AEGCL. As the true-up for AEGCL and APGCL has been done by considering the Revenue reported in their respective Audited Accounts for FY 2016-17, the Commission has considered the amounts shown as revenue by APGCL and AEGCL as the cost of power purchase from APGCL and the Transmission Charges paid/payable to AEGCL, respectively. Similarly, the quantum of net generation shown by APGCL has been considered as the net purchase by APDCL from APGCL.

4.5.7 The Commission has disallowed the DPS of Rs. 64.83 crore paid to NEEPCO for FY 2016-17, as DPS is a penal payment and cannot be passed on to the consumers.

4.5.8 The remaining source-wise purchases have been accepted as submitted by APDCL. The summary of power purchase quantum and cost approved in the MYT Order for FY 2016-17, actual quantum and cost as submitted by APDCL in its True-Up Petition, and the quantum and cost approved by the Commission after true-up are summarized in the Table below:

Table 11: Power Purchase approved by the Commission after True-Up for FY 2016-17 (MU)

Sl.	Source	MYT Order			APDCL Petition			Approved after True-Up		
		Quantum	Total Charge	Rate	Quantum	Total Charge	Rate	Quantum	Total Charge	Rate
		MU	Rs. Crore	Rs./ kWh	MU	Rs. Crore	Rs./ kWh	MU	Rs. Crore	Rs./ kWh
1	**APGCL**	**1701.99**	**628.80**	**3.69**	**1557.26**	**610.28**	**3.92**	**1557.26**	**596.62**	**3.83**
2	**NEEPCO (HYDRO)**									
	KOPILI I	350.0	39.55	1.13	514.29	106.05	2.06	514.29	106.05	2.06
	KOPILI II	50.0	8.15	1.63	52.93	8.58	1.62	52.93	8.58	1.62
	KHANDONG	95.0	16.72	1.76	106.39	19.70	1.85	106.39	19.70	1.85
	RHEP	560.0	113.68	2.03	534.95	128.17	2.40	534.95	128.17	2.40
	DHEP	70.0	30.59	4.37	107.65	54.13	5.03	107.65	54.13	5.03
4	AGBPP	930.0	325.50	3.50	812.50	280.70	3.45	812.50	280.70	3.45
	AGTPP	275.0	101.51	3.69	371.36	109.10	2.94	371.36	109.10	2.94
	AGTPP2	70.0	5.22	0.75	-	-	-	-	-	-
	NHPC	150.0	42.45	2.83	210.40	58.21	2.77	210.40	58.21	2.77
	OTPC	1100.0	314.60	2.86	1287.24	464.95	3.61	1287.24	464.95	3.61
	NTPC, BTPS*	860.0	491.06	5.71	1020.85	542.93	5.32	1020.85	542.93	5.32
	CSGS NER GROSS	4510.00	1489.03	3.30	5018.56	1772.51	3.53	**5018.56**	**1772.52**	**3.53**
	CSGS ER									
	Farakka	250.00	83.25	3.33	277.26	94.18	3.40	277.26	94.18	3.40
5	Kahalgaon I	130.00	46.28	3.56	130.99	44.35	3.39	130.99	44.35	3.39
6	Kahalgaon II	540.00	211.14	3.91	524.56	179.57	3.42	524.56	179.57	3.42
7	Talcher	140.00	37.52	2.68	136.50	38.16	2.80	136.50	38.16	2.80
9	**CSGS ER GROSS**	1060.0	378.19	3.57	1069.32	356.26	3.33	**1069.31**	**356.26**	**3.33**
	OTHERS									

Sl.	Source	MYT Order			APDCL Petition			Approved after True-Up		
		Quantum	Total Charge	Rate	Quantum	Total Charge	Rate	Quantum	Total Charge	Rate
		MU	Rs. Crore	Rs./ kWh	MU	Rs. Crore	Rs./ kWh	MU	Rs. Crore	Rs./ kWh
	HHPCPL	9.80	4.03	4.11	8.97	3.69	4.11	8.97	3.69	4.11
	IOCL(AOD)	27.20	10.53	3.87	9.27	4.39	4.73	9.27	4.39	4.74
	MeECL	28.60	17.13	5.99	17.72	10.78	6.08	17.72	10.78	6.08
	SECI Solar	31.00	18.68	6.03	38.05	24.93	6.55	38.05	24.93	6.55
12	JNNSM Solar Bundled	9.60	11.12	11.58	7.88	9.56	12.13	7.88	9.56	12.13*
13	Suryatap Solar*	2.92	2.84	9.73	4.40	4.27	9.72	4.40	4.27	9.70
14	JNNSM Coal Bundled	35.00	10.96	3.13	36.40	11.07	3.04	36.40	11.07	3.04*
15	TRADING PURCHASE	338.19	136.45	4.03	692.51	275.10	3.97	692.51	275.10	3.97
16.1	Swapping inflow outflow net	78.93	18.15	2.30	107.17	26.16	2.44	107.17	26.16	2.44
16.2	IEX IN	676.38	155.57	2.30	239.31	58.74	2.45	239.31	58.74	2.45
17	Additional Solar RPO (RECs)		8.16							
18	Additional Non-solar RPO(RECs)		19.52			10.00			10.07	
19	**OTHERS GROSS**	**1237.62**	**413.14**	**3.34**	**1161.67**	**438.68**	**3.78**	**1161.67**	**438.76**	**3.78**
20	Deviation Settlement Mechanism				393.56	97.79	2.48	393.56	97.79	2.48
21	Less: Delayed Payment Charges								64.83	
22	Less: Rebate					7.07			7.07	
23	TOTAL PURCHASE	**8509.60**	**2909.15**	**3.42**	**9200.37**	**3268.47**	**3.55**	**9200.36**	**3190.05**	**3.47**
24	Transmission & SLDC Charges		537.92			534.76			537.92	
25	**Total Power Purchase Cost**	**8509.60**	**3447.07**	**4.05**	**9200.37**	**3803.21**	**4.13**	**9200.36**	**3727.97**	**4.05**

Note: * The weighted average rate for purchase of bundled solar power under JNNSM works out to Rs. 4.66 per kWh

4.5.9 Therefore, the Commission approves Power Purchase Expenses of Rs. 3727.97 crore in the truing up for FY 2016-17.

4.6 Sharing of Gains/(Losses) on account of excess Power Purchase cost due to higher than approved Distribution Losses

4.6.1 As the actual Distribution Losses are higher than the approved Distribution Losses for FY 2016-17, the efficiency loss on account of higher than approved Distribution Losses, in terms of excess power purchase expenses, have been shared between APDCL and the consumers, as shown in the Table below:

Table 12: Sharing of Efficiency Gain/(Loss) by the Commission on account of Distribution Losses after True-Up for FY 2016-17 (Rs. Crore)

Particulars	Unit	FY 2016-17
Total Power Purchase	MU	9,200
Trading Sale	MU	844*
Energy Purchased for sale within State	MU	8,356
Allowable Energy Purchase for sale within State	MU	8,302
Excess Energy Purchase	MU	55
Average power purchase rate	Rs/kWh	3.47
Excess Power Purchase Cost	Rs. Crore	18.93
Share of gain/(loss) to be borne by APDCL	Rs. Crore	(12.62)
Share of gain/(loss) to be borne by consumers	Rs. Crore	(6.31)

Note: * - as per APDCL submission

Therefore, the Commission disallows two third of the excess power purchase cost, i.e., Rs. 12.62 crore in the truing up for FY 2016-17, which will be borne by APDCL, and one third of the excess power purchase cost, i.e., Rs. 6.31 crore, is passed on to the consumers as per the MYT Regulations, 2015.

4.7 O&M Expenses

4.7.1 APDCL submitted that Operation and Maintenance (O&M) Expenses comprise:

a) Employee Expenses
b) Repair and Maintenance (R&M) Expenses

c) Administrative and General (A&G) Expenses

4.7.2 APDCL submitted that it has incurred actual O&M expenses of Rs. 756.09 Crore against the approved O&M expenses of Rs. 774.63 Crore for FY 2016-17, as shown in the Table below:

Table 13: O&M Expenses for FY 2016-17 as submitted by APDCL

Sl. No.	Particulars	MYT Order	Actual	Deviation
1	Employee Expenses	659.40	601.42	57.98
2	Repair & Maintenance	80.05	98.31	-18.26
3	Administrative & General Expenses	35.18	56.36	-21.18
4	**Total O&M expenses**	**774.63**	**756.09**	**18.54**

4.7.3 APDCL submitted that as can be seen from the above Table, APDCL has been able to save Rs. 18.54 Crore out of approved O&M expenditure. There is significant savings in Employee expenses (Rs. 57.98 Crore) and moderate increase in case of other two heads of expenditure viz. R&M expenses (Rs. 18.26 Crore) and A&G (Rs. 21.18 Crore).

Employee Expenses

4.7.4 APDCL submitted that Employee Expenses comprise salaries, dearness allowance, bonus, terminal benefits in the form of contribution for pension and gratuity funding, leave encashment, and staff welfare expenses. APDCL submitted that there is a reducing trend over the past few years due to the decrease in the number of recruitments made every year. The employee count/ the working strength has shown a decreasing trend as compared to previous year as the addition of new employees is happening at a rate slower than the retirement rate.

4.7.5 APDCL has claimed actual employee expenses of Rs. 601.42 Crore for FY 2016-17 as against the expenses of Rs. 659.40 Crore approved in the MYT Order. APDCL submitted that it has been able to manage its employee expenditure within 91% of the approved level in FY 2016-17 because of high attrition ratio, inadequate recruitment corresponding to high attrition ratio, pending implementation of Revision of Pay (ROP), 2016, and comparatively lower inflationary trend.

Repair & Maintenance (R&M) Expenses

4.7.6 APDCL submitted that R&M Expenses are incurred for daily upkeep of the distribution network and forms an integral part of the company's efforts towards reliable and quality power supply. APDCL submitted that most of its assets are old and not adequately maintained from time to time primarily due to restricted allowance in tariff for many previous years. Regular maintenance of assets is a prerequisite to ensure uninterrupted operations. APDCL has been trying its best to ensure uninterrupted operation of the system and accordingly has been undertaking necessary expenditure for R&M activities. Considering this fact, the expenditure incurred on R&M activities are uncontrollable in nature.

4.7.7 APDCL has claimed actual R&M expenditure of Rs. 98.31 Crore as against approved normative R&M expenses of Rs. 80.05 Crore. The deviation is mainly due to restricted approval of R&M expenses on the basis of Regulations irrespective of the age vis-à-vis health of infrastructure for many previous years, and outsourcing for O&M of many sub-stations due to severe human resource constraints. All the 37 Sub-stations are under such contract during FY 2016-17 at an expense of Rs. 4.04 Crore.

Administrative and General (A&G) Expenses

4.7.8 APDCL submitted that A&G Expenses comprise rents, taxes, various statutory charges, telephone and other communication expenses, professional charges, legal charges, conveyance & travelling allowance etc.

4.7.9 APDCL has claimed the actual A&G Expenses of Rs. 56.36 Crore for FY 2016-17 as per the Audited Annual Accounts, as against approved normative A&G expenses of Rs. 35.18 Crore. The reasons for such deviation from the approved amount are:

i) Extra-ordinary one-time expenditure for maintenance and facility management service of cloud-based Infrastructure as a Service (IaaS) hardware and software for ERP project involving Rs. 6.03 Crore.

ii) Extraordinary one-time expenditure on Annual Technical support- ERP project involving Rs. 4.14 Crore.

iii) One-time payment of Fees to the Commission amounting to Rs. 4.27 crore.

iv) Extraordinary one-time expenditure on Technical Fees paid to RECPDCL, WAPCOS for preparation of DPR, Project survey and third-party inspection, etc., amounting to Rs. 11.20 Crore.

v) Actual A&G expenses also depend on the growth in the business size requiring higher operational activity thereby resulting in higher expenses in addition to the inflation factor.

vi) The increase is also due to the uncontrollable reasons like increase in price of petrol/diesel and increase in other statutory taxes, etc.

Commission's Analysis

4.7.10 As regards O&M Expenses for the Control Period from FY 2016-17 to FY 2018-19, Regulation 38.3 of MYT Regulations, 2015 specifies as under:

"38.3 c. 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;*

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

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

Where –

- EMP_{n-1} *– Employee Costs for the (n-1)th year;*
- $A\&G_{n-1}$ *– Administrative and General Costs for the (n-1)th year;*
- *Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.*
- *'K' is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT*

Tariff order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-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-1th year;*
- *G_n is a growth factor for the nth year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, and any other factor that the Commission feels appropriate:"*

4.7.11 In accordance with the above said Regulations, the Commission in MYT Order dated March 31, 2017 has allowed O&M Expenses on normative basis. However, APDCL has claimed O&M Expenses on actual basis. For the purpose of truing up for FY 2016-17, the Commission has computed the O&M Expenses on normative basis as per Regulation 38 of the MYT Regulations, 2015. Any variation between normative O&M expenses and actual O&M Expenses has been considered under sharing of gains and loss on account of controllable items as per Regulation 13 of MYT Regulations, 2015.

4.7.12 For computation of normative employee expenses for FY 2016-17, 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 that there has not been any addition to the employee base in FY 2016-17, growth factor of 0% has been considered.

4.7.13 The normative employee expenses approved in the true-up for FY 2016-17 are shown in the following Table:

Table 14: Approved Employee Expenses for FY 2016-17 (Rs. Crore)

Particulars		FY 2016-17	
		MYT Order	Approved
Employee Expenses for Previous Year	EMP_{n-1}	597.17	597.17
Growth Factor	G_n	3%	0%
CPI Inflation	CPI	7.21%	7.21%
Employee Expenses		**659.40**	**640.20**

Therefore, the Commission approves Employee Expenses of Rs. 640.20 crore for FY 2016-17.

4.7.14 For computation of R&M Expenses for FY 2016-17, 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 0.94%

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 in the MYT Order. The K-factor for the Control Period has been considered as 3.50%, as there has been an increasing trend in R&M expenses over the years.

c) Since, K-factor has been considered on the basis of average GFA, for projection of R&M expenses for the Control Period, average GFA for previous years has been considered.

4.7.15 The normative R&M expenses approved for FY 2016-17 are shown in the following Table:

Table 15: Approved R&M Expenses for FY 2016-17 (Rs. Crore)

Particulars		FY 2016-17	
		MYT Order	Approved
Average GFA for previous year	GFA_{n-1}	2,246.17	2,246.17
K Factor	K	3.50%	3.50%
WPI Inflation	WPI	1.83%	0.94%
R&M Expenses		**80.05**	**79.35**

Therefore, the Commission approves R&M Expenses of Rs. 79.35 crore for FY 2016-17.

4.7.16 For computation of A&G expenses for FY 2016-17, 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 0.94%

4.7.17 For FY 2016-17, the Commission had considered total provision of Rs. 3 Crore in the MYT Order comprising Rs. 1 crore for consumer awareness initiatives, Rs. 1 crore for special initiatives proposed by APDCL, and Rs. 1 crore for making the Consumer Grievance Redressal Forum (CGRF) independent, in accordance with the AERC (Redressal of Consumer Grievances) Regulations, 2016. In the MYT Order, the Commission had specifically directed APDCL to maintain details of activities undertaken under such special initiatives as well as maintain the expenses separately and submit the same to the Commission at the time of true-up. As the necessary details and justification have not been submitted by APDCL, the same has not been considered in the true-up for FY 2016-17.

4.7.18 The approved A&G expenses for FY 2016-17 is shown in the following Table:

Table 16: Approved A&G Expenses for FY 2016-17 (Rs. Crore)

Particulars		FY 2016-17	
		MYT Order	Approved
A&G Expenses for Previous Year	A&Gn-1	31.60	31.60
WPI Inflation	WPI	1.83%	0.94%
Provision	Provision	3.00	0.00
A&G Expenses		35.18	31.90

Therefore, the Commission approves A&G Expenses of Rs. 31.90 crore in the true-up for FY 2016-17.

4.7.19 The normative O&M expenses approved by the Commission for FY 2016-17 is shown in the following Table:

Table 17: Normative O&M Expenses approved by Commission for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	FY 2016-17		
		MYT Order	Actual	Approved after Truing up
1	Employee Expenses	659.40	601.42	640.20
2	Repairs and Maintenance Expenses	80.05	98.31	79.35
3	Administrative & General Expenses	35.18	56.36	31.90
Total		**774.63**	**756.09**	**751.44**

4.7.20 Further, Regulation 11.2 of MYT Regulations, 2015 specifies O&M Expenses (excluding terminal liabilities with regard to employees on account of changes in pay scales or dearness allowance due to inflation) as controllable factors. Hence, for undertaking sharing of gains or losses, the Commission has excluded the terminal liabilities from normative as well as actual Employee expenses. Accordingly, terminal liabilities are allowed on actual basis.

4.7.21 For computing the sharing of gains/(losses), the Commission has considered the actual A&G expenses, after reducing the amount of Rs. 11.2 crore towards Technical Fee and Other Expenses incurred by APDCL for preparation of Detailed Project Reports, etc., which are in the nature of capital expenditure. Hence, these expenses have been added to the assets capitalised, and considered for the purposes of computing depreciation, interest and RoE as applicable. Thus, the actual A&G expenses considered for the purposes of computing the sharing of gains/(losses) is Rs. 45.16 crore.

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

Table 18: Sharing of gains or losses for O&M Expenses approved by the Commission for FY 2016-17 (Rs. Crore)

Sl. No.	Particulars	Actual	Normative	Gains/ (losses)	Gains/(Losses) to be shared with consumers
		a	b	c=(b-a)	d=c x 1/3
1	Employee Cost	601.42	640.20	38.78	12.93
2	Less: Terminal Benefits	82.09	91.23		

Sl. No.	Particulars	Actual	Normative	Gains/ (losses)	Gains/(Losses) to be shared with consumers
		a	b	c=(b-a)	d=c x 1/3
3	Employee Cost excl. Terminal Benefits	519.33	548.97	29.64	9.88
4	Repair & Maintenance	98.31	79.35	(18.96)	(6.32)
5	Administrative & General Expenses	45.16	31.90	(13.26)	(4.42)
6	**Total**	**744.89**	**751.45**	**(2.58)**	**(0.86)**

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

4.7.23 Since, normative O&M expenses are higher than the actual expenses, the net gain of Rs. 0.86 Crore has been shared and passed on through ARR.

4.8 Capital Investment & Financing of Capital Investment

4.8.1 APDCL has not submitted details of the Capital Expenditure and Capitalisation for FY 2016-17 in the Petition.

Commission's Analysis

4.8.2 APDCL was asked to submit the data of actual capital expenditure and capitalisation achieved in FY 2016-17. APDCL was also asked to submit the status of actual scheme wise capital expenditure and capitalisation achieved in FY 2016-17 as against the scheme wise capital expenditure and capitalisation approved by the Commission in the Business Plan Order.

4.8.3 APDCL submitted that the actual capital expenditure in FY 2016-17 was Rs.1035.37 crore and capitalisation achieved was Rs. 1041.35 crore. APDCL further submitted that the net addition to Gross Fixed Assets (GFA) for the purpose of computing depreciation was Rs. 254.80 crore, while Rs. 779.20 crore of asset addition was towards assets not belonging to APDCL, and Rs. 7.35 crore was funded by Consumer Contribution.

4.8.4 Hence, for the purpose of ARR and tariff determination in this Order, the Commission has considered the actual capitalisation of Rs. 1041.35 crore, as submitted by APDCL. Accordingly, the Capital Expenditure and Capitalisation approved by the Commission for FY 2016-17 is shown in the following Table:

Table 19: Capital Expenditure and capitalisation approved by the Commission (Rs. Crore)

Particulars	FY 2016-17	
	MYT Order	Approved
Opening CWIP	3,462.96	3,462.96
Capital Expenditure	1,000.00	1,035.37
Capitalisation	650.00	1,041.35
Closing CWIP	3,812.96	3,456.98

4.8.5 Further, as mentioned earlier, Rs. 11.2 crore of expense incurred towards Technical Fee and Other Expenses for preparation of Detailed Project Reports, etc., have been added to the assets capitalised. Thus, the total amount of capitalisation considered by the Commission in the true-up for FY 2016-17 is Rs. 1052.55 crore.

4.8.6 As regards the funding of capitalisation, the Commission has not considered any equity funding based on APDCL's submission. The grant and debt funding has been considered as submitted by APDCL in its Petition, corresponding to the capitalisation considered for tariff purposes in this Order. The funding of capitalised works, as approved by the Commission is shown in the following Table:

Table 20: Funding of Capitalised Works approved by the Commission (Rs. Crore)

Particulars	MYT Order	Approved
Grant	503.31	947.29
Equity	-	-
Debt	146.69	105.25
Total Capitalisation	**650.00**	**1,052.55**

Therefore, the Commission approves total Capitalisation of Rs. 1052.55 crore in the true-up for FY 2016-17.

4.9 Depreciation

4.9.1 APDCL submitted that the Opening GFA for FY 2016-17 as per Audited Accounts is Rs. 2570.81 Crore. Depreciation has been calculated taking into consideration the opening GFA as well as addition of assets during FY 2016-17 as per Audited Accounts. APDCL submitted that while actual depreciation as per Companies Act is shown in the Audited Accounts, the truing up claim has been made after re-calculating the depreciation as per the MYT Regulations, 2015, as shown in the Table below:

Table 21: Depreciation Calculation for FY 2016-17 as submitted by APDCL (Rs. Crore)

				Depreciation				
Particulars	**As on 01.04.16**	**Net addition during the year**	**Rate of Dep**	**Accumulated as on 01.04.16**	**Assets fully depreciated**	**On Opening Balance of GFA**	**On Addition of GFA**	**Total**
Land & Rights								
i) Land owned under full title	14.76	0.85		-		-	-	-
ii) Leasehold land	2.07	0.15	3.34%	-		0.07	0.00	0.07
Subtotal:	16.83	1.00		-	-	0.07	0.00	0.07
Building	53.26	0.60	3.34%	20.49	-	1.78	0.01	1.79
Hydraulic						-	-	-
Other Civil Works	50.83	3.56	3.34%	23.14	-	1.70	0.06	1.76
Plant & Machinery	585.78	3.86	5.28%	332.91	214.60	19.60	0.10	19.70
Lines & Cable Network	950.25	244.33	5.28%	574.29	388.81	29.64	6.45	36.09
Vehicles	11.94	-	5.28%	10.51	11.23	0.04	-	0.04
Furniture & Fixtures	15.21	0.62	6.33%	10.13	9.20	0.38	0.02	0.40
Office Equipment	25.47	0.83	6.33%	18.83	16.80	0.55	0.03	0.58
SUB TOTAL	**1,709.57**	**254.80**	**3.53%**	**990.30**	**640.64**	**53.75**	**6.67**	**60.42**
Add: Consumers contribution deducted from service connection under O.H. lines & cable network	216.09	7.35	5.28%	80.08		11.41	0.19	11.60
Add: Assets not belonging to the entity	645.15	779.20		-			-	-
Total	**2,570.81**	**1,041.35**		**1,070.38**	**640.64**	**65.16**	**6.86**	**72.03**

Table 22: Depreciation Claimed by APDCL

Particulars	State Govt. grant			Grant for assets not belonging to entity (RGGVY, MNRE etc.)	Consumer Contribution	Total
	As on 01.04.2005	As on 01.04.2016	Sub total	As on 01.04.2016		
Grants Available	-	1,620.97	1,620.97	2,491.88	216.09	4,328.94
GFA (excluding Consumer Contribution and Lands & Rights)	1,095.63	613.94	1,709.57	645.15	216.09	2,570.81
CWIP	-	3,356.75	3,356.75	106.21		3,462.96
Total	1,095.63	3,970.69	5,066.32	751.36	216.09	6,033.77
Cumulative grants apportioned in the ratio of GFA and CWIP						
GFA	-	250.63	250.63	2,139.64		2,390.27
CWIP	-	1,370.34	1,370.34	352.24		1,722.58
Total	-	1,620.97	1,620.97	2,491.88	-	4,112.85
Depreciation calculated as per the Regulation on the GFA	38.73	21.70	60.42	-		60.42
Weighted Average Rate of Depreciation (%)	3.53%	3.53%	3.53%	-		
Depreciation to be deducted on the assets built on the grants component on 90% asset value	-	8.86	8.86	-		8.86
Depreciation claimed	**38.73**	**12.84**	**51.57**	**-**	**-**	**51.57**

4.9.2 APDCL submitted that the depreciation of Rs.51.57 crore claimed by APDCL is based on:

a) Rates of depreciation as notified in addendum to MYT Regulations, 2015.
b) Depreciation on assets created out of Consumer Contribution has not been considered.
c) No funding from grant considered for Fixed Assets vis-à-vis CWIP transferred to APDCL consequent to unbundling of erstwhile ASEB as on 1st April, 2005. Total depreciation on the opening balance of GFA as on Transfer Scheme dated 1st April, 2005 amounting to Rs. 38.73 Crore calculated at the weighted average rate of 3.53% has been claimed in totality.
d) Depreciation on subsequent assets is claimed after apportionment of available grant. Total amount of depreciation claimed on this account is Rs. 12.84 Crore after adjustment of funding from grant for Rs. 8.86 Crore.

Commission's Analysis

4.9.3 The Commission has considered the opening GFA for FY 2016-17 as per the closing GFA value approved in True up of FY 2015-16 vide MYT Order dated March 31, 2017. The Commission has computed depreciation as per scheduled rates specified in the MYT Regulations, 2015.

4.9.4 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. The Commission has not considered depreciation on assets funded through grants in accordance with Regulations 31 and 33 of MYT Regulations, 2015, and in accordance with the Commission's own Orders and the Hon'ble APTEL Judgment in this regard.

4.9.5 Accordingly, the Commission has approved depreciation for FY 2016-17 as per MYT Regulations, 2015, as given in the Table below:

Table 23: 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	16.83	1.04		-
2	Building	53.26	0.63	3.34%	1.79
3	Plant & Machinery	585.78	4.03	5.28%	19.70
4	Vehicle	11.94	-	9.50%	0.04
5	Furniture & Fixtures	15.22	0.62	6.33%	0.40
6	Office Equipment	25.47	0.83	6.33%	1.44
7	Other Civil Work	50.82	3.72	3.34%	1.76
8	Lines & Cable Network	950.25	255.07	5.28%	34.93
9	**Total**	**1709.57**	**266.00**		60.07
10	Asset excluding land	**1692.74**	**264.96**		
11	Less: Depreciation for Grants/Consumer Contribution				44.55
12	**Net Depreciation Allowed**				**15.51**

Therefore, the Commission approves Depreciation of Rs. 15.51 crore in the truing up for FY 2016-17.

4.10 Interest and Finance Charges

4.10.1 In the MYT Order, the Commission had approved Interest on loan capital for the year on normative basis. The Commission had considered the amount of loan converted under UDAY to Grant equivalent to the net normative loan outstanding, i.e., Rs. 343.06 crore, as the net normative loan outstanding is lower than the amount of loan converted to Grant by the GoA. Further, as the entire net normative loan outstanding has been converted to grants, the Commission had not considered any conversion of loan to equity.

4.10.2 The Commission had considered the net addition of loan during FY 2016-17 as the sum of loan of Rs. 146.69 crore taken for funding the capitalization during FY 2016-17 and the reduction of loan of Rs. 343.06 crore due to conversion to grant. Thus, the Commission had considered a net reduction of loan of Rs. 196.37 crore in FY 2016-17, and the loan repayment was considered equivalent to depreciation approved. The Commission had considered the Interest rate of 9.40% for balance loan amount as proposed by APDCL in accordance with the UDAY MoU.

4.10.3 In this context, APDCL submitted that the UDAY MoU was executed on 4th January, 2017 and conversion of Government Loan is required to be processed up to the level of Cabinet approval, which did not materialize during FY 2016-17. As such, the benefit of reduction in interest on Government Loan consequent to conversion as envisaged could not be availed during FY 2016-17 and actual debt structure prevailed till the end of FY 2016-17.

4.10.4 APDCL added that Commission has not allowed interest on RAPDRP Loan, interest on GPF, interest on NPS, Bank charges, etc. APDCL stated that while it was not claiming these interest expenses, it reserved its right to claim the same at a later date and requested the Commission to allow recovery of actual cost incurred on interest on GPF as well as NPS at an opportune time so as to safeguard APDCL's financial viability.

4.10.5 The net interest expenses claimed by APDCL are shown in the Table below:

Table 24: Interest and Finance Charges as submitted by APDCL for FY 2016-17

(Rs. Crore)

Particulars	FY 2016-17	
	MYT Order	APDCL's claim
Interest on GoA Loan	22.42	83.47
Bank Charges		3.51
Interest on R-APDRP Loan		41.51
Others		0.09
Less: Interest Capitalized		34.45
Total	**22.42**	**94.13**
Normative IWC claimed in this Petition		9.73
Normative IWC approved		6.06
Difference		3.67
Net claim for Interest & Finance charges in this petition		**90.46**

Commission's Analysis

4.10.6 The Commission has approved Interest on loan capital for FY 2016-17 on normative basis as per Regulation 35 of MYT Regulations, 2015. As per the above said Regulation, Normative Loan outstanding as on April 1, 2016, is derived after reducing 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 25: Computation of Normative loan outstanding as on April 1, 2016 (Rs. Crore)

Particulars	As on April 1, 2016
Gross Fixed Assets (excluding Land)	2554.01
CWIP	3462.96
Grant (CWIP + Assets)	4,334.16
Grant towards GFA	1,839.71
Equity	162.77
Gross Normative Loan	551.53
Less: Cumulative repayment (net depreciation, excluding the depreciation for assets funded through grants, approved by the Commission in True-up Orders)	208.46
Net Normative loan	**343.06**

4.10.7 It may be noted that APDCL has taken loans for settling Power Purchase dues also, whereas, the Commission considers only loans related to capital expenditure and capitalisation. Further, APDCL has not been repaying the loans in the past. As a result, the loans outstanding in APDCL's books are higher than the normative loan considered by Commission.

4.10.8 The UDAY MoU has been signed by GoI, GoA and APDCL on January 4, 2017. As per the MoU Agreement, in the last quarter of FY 2016-17, GoA was expected to take over 75% of the outstanding loans of APDCL for capital works and payment of liabilities, out of which 75% would be converted to Grants, and balance 25% was proposed to be converted to equity. However, as submitted by APDCL, the above-proposed take-over of loan by GoA has not taken place in FY 2016-17, and has happened in FY 2017-18. Hence, the consequences of UDAY MoU on the loans have been considered in FY 2017-18, as detailed in Chapter 5 of this Order, and the net normative loan outstanding as on 1st April 2016 has been retained as Rs. 343.06 crore.

4.10.9 The Commission has considered the net addition of loan during FY 2016-17 as Rs. 105.25 crore taken for funding the capitalization during FY 2016-17, based on 10% loan funding as submitted by APDCL. The loan repayment has been considered equivalent to depreciation approved for FY 2016-17 in this Order. The Commission has considered the Interest rate of 10.46% as weighted average of actual loan portfolio at the beginning of FY 2016-17, in accordance with the MYT Regulations, 2015.

4.10.10 The interest and Financing Charges as approved by the Commission for FY 2016-17 is shown in the following Table:

Table 26: Approved Interest & Financing Charges for FY 2016-17 (Rs. Crore)

Particulars	FY 2016-17
Net Normative Opening Loan	343.06
Addition of normative loan during the year	105.25
Normative Repayment during the year	15.51
Net Normative Closing Loan	432.80
Interest Rate	10.46%
Interest Expenses	**40.57**
Bank Charges & Others	**3.60**
Total Interest & Finance Charges	**44.17**

Therefore, the Commission approves Interest on Loans of Rs. 44.17 crore in the truing up for FY 2016-17.

4.11 Interest on Working Capital

4.11.1 APDCL submitted that Interest on Working Capital (IoWC) has been calculated on normative basis in accordance with the MYT Regulations, 2015, as shown in the Table below:

Table 27: IoWC as submitted by APDCL for FY 2016-17 (Rs. Crore)

Particulars	FY 2016-17	
	MYT Order	Actual
O&M Expenses-One month	64.55	63.01
2-month Receivables	668.95	705.61
Maintenance spares 15% of O&M	116.19	113.41
Less: One-month Power Purchase Cost	287.26	316.93
Less: consumer security deposit	551.67	489.11

Particulars	FY 2016-17	
	MYT Order	Actual
Total working Capital	10.77	75.99
Rate of Interest on WC	12.80%	12.80%
Interest on WC	**1.38**	**9.73**

Commission's Analysis

4.11.2 The Commission has computed IoWC in accordance with Regulations 37.3 and 37.4 of the MYT Regulations, 2015. The amount of Consumer Security Deposit has been taken from the Audited Accounts. The rate of Interest has been considered equal to State Bank of India Base Rate as on 1st April of FY 2016-17 plus 350 basis points, i.e., 12.80%.

4.11.3 The IoWC approved by the Commission in the truing up for FY 2016-17 is shown in the following Table:

Table 28: IoWC approved by the Commission for FY 2016-17 (Rs. Crore)

Particulars	FY 2016-17		
	MYT Order	Actual	Approved after true up
O&M Expenses-One month	64.55	63.01	62.62
2-month Receivables	668.95	705.61	705.61
Maintenance spares @ 15% of O&M expenses	116.19	113.41	112.72
Less: One-month Power Purchase Cost	287.26	316.93	310.66
Less: Consumer Security Deposit	551.67	489.11	587.72
Total Working Capital	10.77	75.99	(17.44)
Rate of Interest on WC	12.80%	12.80%	12.80%
Interest on WC	**1.38**	**9.73**	**0.00**

Therefore, the Commission considers IoWC of NIL in the truing up for FY 2016-17, as the net working capital requirement is negative.

4.12 Interest on Consumer Security Deposit

APDCL submitted that the Commission has approved Interest on Security Deposit for Rs.40 Crore. However, actual interest liability on Consumer Security Deposits as per the Audited Accounts for FY 2016-17 on the basis of load security as on 1st April of the FY is Rs. 45.85 Crore.

APDCL added that in this Petition, Amount Claimed was being made for Rs. 15.37 Crore actually liquidated during FY 2016-17.

Commission's Analysis

4.12.1 In response to the Commission's query, APDCL submitted the details of actual Opening and Closing balance of Consumer Security Deposit (CSD) for FY 2016-17, as shown in the Table below:

Table 29: Interest on CSD claimed by APDCL for FY 2016-17 (Rs. Crore)

Particulars	FY 2016-17
Opening Balance of CSD	524.73
Additions during the Year	62.98
Closing Balance of CSD	587.71
Interest Paid	**15.37**

The Commission approves the actual interest on CSD of Rs. 15.37 crore paid by APDCL to the consumers, in the truing up for FY 2016-17.

4.13 Other Debits

4.13.1 APDCL submitted that the Commission has approved an amount of Rs. 12.42 Crore as provision for bad & doubtful debts in the MYT Order. The actual amount booked under various heads of "Other Debits" including Provision for Bad & Doubtful debts is Rs.10.77 Crore. The element-wise break up of expenses booked under Other Debits is given in the Table below:

Table 30: Other Debits as submitted by APDCL (Rs. Crore)

Particulars	MYT Order	APDCL
Compensation for injuries, deaths and damage of outsiders.	-	0.38
Bad and doubtful Debt written off	-	0.58
Provision for Bad & Doubtful Debts	12.42	9.81
Total:	**12.42**	**10.77**

Commission's Analysis

4.13.2 The Commission has disallowed the Bad & Doubtful Debts Written off, in accordance with past practice. The Commission has also disallowed the amount paid as compensation for injuries, deaths and damage to outsiders, as such expenses have been incurred due to APDCL's inefficient and unsafe practices, and cannot be passed on to the consumers through the ARR and tariff. The Commission has allowed the actual amount of provisioning for bad and doubtful debts, as the amount is lower than the ceiling level of 1% of receivables that can be allowed as per the MYT Regulations, 2015.

Therefore, under Other Debits, the Commission approves Provision for Bad Debts of Rs. 9.81 crore in the truing up for FY 2016-17.

4.14 Net Prior Period Expenses/(income)

4.14.1 APDCL has claimed Net Prior Period Income of Rs. 130.17 Crore in the true-up for FY 2016-17, and submitted the details of each head of prior period expenses and prior period income considered in the Audited Accounts of APDCL.

Commission's Analysis

4.14.2 The Commission has analysed the component-wise details and justification for Net Prior period expenses/(income) for FY 2016-17 as submitted by APDCL. 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.

4.14.3 The Commission has disallowed the prior period expenses/(income) towards interest and finance charges since, these expenses had not been allowed by the Commission in the past Orders based on audited accounts, and were allowed on normative basis. Similarly, the Commission has not considered the Excess Provision in Past Period as prior period income, as the Commission has not allowed expenses against provisioning in the earlier Tariff Orders, and only prudent actual/normative expenses have been allowed.

4.14.4 The Net prior period expenses/(income) submitted by APDCL and approved by the Commission in the true up for FY 2016-17, are shown in the Table below:

Table 31: Prior Period Expenses/(Income) approved by the Commission for FY 2016-17 (Rs. Crore)

Particulars	APDCL Petition	Approved after true up
Prior Period Expenses		
Employee Cost related to Prior Period	0.02	0.02
Interest relating to Prior Period	1.56	-

Particulars	APDCL Petition	Approved after true up
Sub-Total	**108.71**	**0.02**
Prior Period Income		
Interest income for Prior Period	68.09	68.09
Excess Provision in Prior Period	63.66	0
Sub- Total	**131.75**	**68.09**
Net Prior Period Expenses(/Income)	**(130.17)**	**(68.07)**

Accordingly, the Commission approves the Net Prior Period Income of Rs. 68.07 Crore in the truing up for FY 2016-17.

4.15 Return on Equity

4.15.1 APDCL submitted that the Commission considered equity of Rs.162.77 Crore and allowed return @16% on the equity base for FY 2016-17. APDCL submitted that pending notification by GoA on Share Application Money amounting to Rs. 88.04 Crore transferred from erstwhile ASEB to APDCL and Rs.0.63 Crore transferred on dissolution of ASEB on 31-03-2013, it was restricting its claim to the amount allowed by the Commission in the MYT Order.

Commission's Analysis

4.15.2 As equity shares are yet to be issued against the Share Application Money Pending Allotment, the Commission has not considered RoE on this amount, in line with the practice followed in earlier Orders.

4.15.3 The RoE allowed by the Commission at 16% of the equity capital of APDCL is shown in the following Table:

Table 32: RoE approved by the Commission for FY 2016-17 (Rs. Crore)

Particulars	MYT Order	APDCL Petition	Approved after true up
Opening Equity	162.77	162.77	162.77
Net Addition during the Year	0.00	0.00	0.00
Closing Equity	162.77	162.77	162.77
Rate of Return on Equity	16.00%	16.00%	16.00%
Return on Equity	**26.04**	**26.04**	**26.04**

Therefore, the Commission approves RoE of Rs. 26.04 crore in the truing up for FY 2016-17.

4.16 Other Income

4.16.1 The Commission had approved the Other Income at Rs. 164.73 Crore for FY 2016-17 in the MYT Order, whereas APDCL has submitted Other Income of Rs. 277.68 Crore as per the Audited Accounts for FY 2016-17, with the head-wise details. APDCL stated that the increase in Other Income was primarily due to income from sale of surplus power, made possible due to export of seasonal power from allocated sources on account of significant gap in demand during peak and off-peak hours.

Commission's Analysis

4.16.2 The Commission has considered the actual Other Income as per the Audited Accounts in the true up for FY 2016-17. The amount of Other Income considered in the MYT Order, amount claimed by APDCL in the true up Petition and amount approved in the true up, is shown in the Table below:

Table 33: Other Income approved by the Commission for FY 2016-17 (Rs. Crore)

Sl.	Particulars	MYT Order	Actual	Approved
1	Interest from banks and Investment	164.72	82.26	82.26
2	Rent from residential buildings		0.03	0.03
3	Miscellaneous receipts		13.82	13.82
4	Receipt from Pension Trust		48.68	48.68
5	Income on seasonal Export of surplus power		132.89	132.89
	Total	**164.72**	**277.68**	**277.68**

Therefore, the Commission approves Other Income of Rs. 277.68 crore in the true up for FY 2016-17.

4.17 Non-Tariff Income

4.17.1 APDCL submitted that it has earned Rs.198.02 Crore of Non-Tariff Income during FY

2016-17, as per the Audited Annual Accounts.

Commission's Analysis

4.17.2 The Commission has considered the actual Non-Tariff Income as per the Audited Accounts in the true up for FY 2016-17. The amount of Non-Tariff Income considered in the MYT Order, amount claimed by APDCL in the true up Petition and amount approved in the true up, is shown in the Table below:

Table 34: Non-Tariff Income for FY 2016-17

Sl.	Particulars	MYT Order	Actual	Approved
1	Rentals from Meters, Service Lines, Capacitors, etc.	158.36	20.99	20.99
2	Income from recoveries on account of theft of energy/ Malpractices		0.28	0.28
3	Delayed Payment Charges from Consumers		140.77	140.77
4	Miscellaneous Recoveries		23.71	23.71
5	Cross Subsidy Surcharge on Open Access Consumer		9.49	9.49
6	Wheeling Charges collected		2.78	2.78
	Total	**158.36**	**198.02**	**198.02**

Therefore, the Commission approves Non-Tariff Income of Rs. 198.02 Crore based on the Audited Accounts, in the truing up for FY 2016-17.

4.18 Revenue Grant/Subsidy

4.18.1 APDCL submitted that it has received Targeted Subsidy of Rs.394.53 Crore for FY 2016-17. APDCL added that in addition to the above, GoA has also provided an amount of Rs. 100 Crore as Operation Fund Requirement as per UDAY MoU. APDCL requested the Commission to consider the total subsidy receipt of Rs. 494.53 crore in the ARR of APDCL for FY 2016-17.

Commission's Analysis

4.18.2 As the actual revenue from sale of electricity is lower to the extent of actual targeted subsidy provided by GoA, the Commission has verified the amount of Targeted Subsidy from the Audited Accounts and considered such subsidy provided by GoA as Revenue.

4.18.3 As regards the Operation Fund Requirement (OFR) amount provided by GoA under UDAY, the Commission has verified the same from the Audited Accounts. The explanation under Note 2.27 – Details of Exceptional Items, states as under:

"(i) This head includes Rs. 100 crore received from GoA as Operational Funding Requirement (OFR) Support as agreed under UDAY MOU for liquidating of Outstanding Power Purchase liabilities of APDCL as on 31.03.2015."

4.18.4 It is seen that the OFR amount provided by GoA is for liquidating of Outstanding Power Purchase liabilities and is not intended to meet the Revenue Gap or targeted subsidy requirement. As the power purchase expenses for previous years have been allowed in the respective true up Orders, and these amounts have already been recovered through Tariff, no such outstanding liability towards unpaid power purchase bills exists as per the regulatory books of accounts, based on which the Commission determines the ARR and Tariff. In other words, APDCL has already been allowed the corresponding income to meet these power purchase expenses. While there is no denying that these amounts are outstanding as per the Audited Accounts, the same is not true for regulatory accounts.

4.18.5 For various reasons, APDCL has been unable to meet its obligations to pay the power purchase liabilities, and the GoA, as the owner of APDCL, has provided OFR cash support under the terms of the UDAY MOU. Under these circumstances, the amount of OFR support provided by GoA cannot be considered as Income for the purposes of true up.

4.18.6 The total amount of subsidy considered by APDCL in the True up Petition and approved by the Commission in the true up for FY 2016-17 are shown in the Table below:

Table 35: Subsidy for FY 2016-17 as considered by the Commission (Rs. Crore)

Particulars	APDCL	Approved after true up
GoA Targeted Subsidy for consumers on account of Tariff	394.53	394.53
Operation Fund Requirement as per UDAY MoU	100.00	0.00
Total	**494.53**	**394.53**

The Commission accordingly approves the Targeted Subsidy of Rs.394.53 Crore in the truing up for FY 2016-17.

4.19 Revenue from Sale of Power

4.19.1 APDCL submitted that the revenue from sale of electricity in FY 2016-17 was Rs. 4233.67 Crore (including targeted subsidy), as against Rs. 4700.41 Crore approved for FY 2016-17 in the MYT Order. APDCL added that the lower recovery is primarily attributable to the negatively skewed sales mix as compared to the approved sales mix, and availing of Open Access by many high value consumers. APDCL requested the Commission to consider the net Revenue from sale of electricity of Rs. 3839.14 crore, excluding GoA targeted subsidy of Rs. 394.53 crore, in the true up for FY 2016-17.

Commission's Analysis

4.19.2 It is observed that there is a mismatch of around Rs. 256 crore (Rs. 147 crore against Fixed/Demand Charges and Rs. 109 crore against Energy Charges) in the revenue computed using the actual category-wise sales and load data submitted by APDCL and the tariffs applicable during FY 2016-17. This indicates that there is an issue regarding the accuracy of the category-wise sales and load data submitted by APDCL. The Commission has given certain directions in this regard in the Chapter on Directives.

4.19.3 However, the Audited Accounts for FY 2016-17 reflects the revenue of Rs. 3839.13 Crore as submitted by APDCL in its true-up Petition for FY 2016-17.

Accordingly, the Commission approves the actual revenue of Rs. 3839.13 Crore in the Truing up for FY 2016-17.

4.20 ARR and Revenue Gap/(Surplus) after Truing Up of FY 2016-17

4.20.1 Considering the above heads of expense and revenue approved after truing up for FY 2016-17, the Net ARR and Revenue Gap/(Surplus) for FY 2016-17 is shown in the following Table:

Table 36: ARR & Revenue Gap/(Surplus) approved in the Truing up for FY 2016-17 (Rs. Crore)

Sl.	Particulars	MYT Order	APDCL Petition	Approved after True Up
1	Power Purchase Expenses	3447.07	3737.25	3727.97
2	O&M Expenses	774.63	756.09	751.44
a)	*Employee Expenses*	*659.40*	*601.42*	*640.20*
b)	*R&M Expenses*	*80.05*	*98.31*	*79.35*
c)	*A&G Expenses*	*35.18*	*56.36*	*31.90*
3	Depreciation	12.79	51.57	15.51
4	Interest and Finance Charges	22.42	90.46	44.17
5	Interest on Working Capital	1.38	9.73	0.00
6	Interest on CSD	40.00	15.37	15.37
7	Return on Equity	26.04	26.04	26.04
8	Income Tax	0.00	0.00	0.00
9	Prior Period Debits/(Income)		(130.17)	(68.07)
10	Other Debits, incl. Provisioning for Bad Debts	12.42	10.77	9.81
11	Sharing of gains/(losses) due to excess Distribution Losses			(12.62)
12	Sharing of gains/(losses) on account of O&M expenses			(0.86)
13	**Total Expenditure**	**4336.76**	**4567.11**	**4510.50**
14	Less: Non-Tariff Income	158.36	198.02	198.02
15	Less: Other Income	164.72	277.68	277.68
16	**Aggregate Revenue Requirement**	**4013.68**	**4091.41**	**4034.80**
17	Revenue at Approved Tariff (including FPPPA)	4700.41	3839.13	3839.13
18	State Government Targeted Subsidy		394.53	394.53
19	State Government - OFR		100.00	0.00
20	**Total Revenue incl. subsidy**	**4700.41**	**4333.66**	**4233.66**
21	**Revenue Gap/(Surplus)**	**(686.74)**	**(242.25)**	**(198.86)**

The Revenue Surplus of Rs. 198.86 Crore approved in the truing up for FY 2016-17, is considered for adjustment during FY 2018-19, as elaborated in Chapter 7 of this Order.

5 Annual Performance Review for FY 2017-18

5.1 Methodology for Annual Performance Review

5.1.1 The Commission had approved the ARR for APDCL for each year from FY 2016-17 to FY 2018-19 in the MYT Order dated March 31, 2017.

5.1.2 Regulation 10.3 of the MYT Regulations, 2015, as amended in November 2017, specifies that the Commission shall undertake the APR and True-up for the respective years of the Control Period from FY 2016-17 to FY 2018-19, as reproduced below:

> *"10.3 The scope of* ***the annual review*** *and True up shall be a comparison of the actual performance of the Generating Company or Transmission Licensee or SLDC or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise the following:*
>
> …
>
> ***b) Annual Review: a comparison of the revised performance targets of the applicant for the current financial year with the approved forecast in the Tariff order corresponding to the Control period for the current financial year subject to prudence check including adjusting trajectories of uncontrollable and controllable items."*** ***(emphasis added)***

5.1.3 APDCL submitted the Annual Performance Review (APR) Petition for FY 2017-18, supported by actual information available till September 2017 and estimated the next six months values. APDCL has sought APR for FY 2017-18, with the estimated Revenue Gap/(Surplus), to be recovered from the consumers.

5.1.4 However, from the above said Regulation, as amended in November 2017, it is clear that the main objective of APR is to compare the performance targets for FY 2017-18 vis-à-vis approved forecast in the MYT Order. The Revenue Gap/(Surplus) arising out of APR for FY 2017-18 shall not be passed on to the consumers, and the same shall be considered at the time of Truing-up only.

5.1.5 In the present Chapter, the Commission has analysed the revised submission of all the elements of ARR vis-à-vis approved values in MYT Order for FY 2017-18. The Commission has computed the Revenue Gap/(Surplus) as an indication of the performance in FY 2017-18. No sharing of gains/(losses) has been undertaken at this stage and the same shall be considered at the time of Truing up for FY 2017-18.

5.2 Energy Sales

5.2.1 APDCL submitted the actual sales for the first half of FY 2017-18 and estimated the sales for the second half of FY 2017-18. APDCL submitted that for FY 2017-18, significant deviation has been observed in case of LT category, primarily on account of deferment in electrification of consumers under RGGVY/DDUGJY. Availing of power through Open Access route by some HT Industries-II consumers has also resulted in reduction in sales.

5.2.2 The category-wise sales projected by APDCL for FY 2017-18 are given in the Table below:

Table 37: Category-wise Energy Sales Projected by APDCL for FY 2017-18 (MU)

Consumer Category	MYT Order	First Half Actual	Estimated for FY 2017-18
JEEVAN DHARA	565.00	219.98	464.57
DOMESTIC A Total	3134.00	1504.60	2892.92
Domestic-B above 5 kW to 20 kW	288.00	150.38	283.83
Commercial Load above 0.5 to 20 kW	693.00	345.31	684.05
General Purpose Load upto 20 kW	136.00	57.37	119.81
Public Lighting	23.00	7.80	15.81
Agriculture upto 7.5 HP	17.00	9.79	21.72
Small Industries Rural upto 20 kW	61.00	32.86	70.88
Small Industries Urban	32.00	16.70	31.98
Temporary	6.00	2.25	6.25
LT TOTAL	**4955.00**	**2347.04**	**4591.83**
HT Domestic 20 kW and above	46.00	15.96	32.04
HT commercial 20 kW & above	395.00	197.96	398.46
Public Water works	71.00	40.32	83.38
Bulk Supply Govt. Edu Inst.	94.00	44.07	88.17
Bulk Supply Others	414.00	214.78	438.93
HT Small Industries up to 50 kW	23.00	13.88	28.94

Consumer Category	MYT Order	First Half Actual	Estimated for FY 2017-18
HT Industries-1 50kw to 150 kW	88.00	44.06	90.02
HT Industries-II above 150 kW	793.00	332.79	673.18
Tea, Coffee & Rubber	442.00	267.68	554.10
Oil & Coal	182.00	46.52	94.18
HT Irrigation Load above 7.5 HP	22.00	11.41	24.52
HT TOTAL	**2570.00**	**1229.41**	**2505.93**
GRAND TOTAL	**7524.00**	**3576.45**	**7097.75**

Commission's Analysis

5.2.3 It is observed that APDCL has projected a reduction in the sales to Jeevan Dhara category in FY 2017-18, as compared to the actual sales in FY 2016-17, which is not consistent with the trend observed in the past years. The Commission sought details from APDCL regarding the number of Jeevan Dhara consumers at the end of FY 2016-17 and number of Jeevan Dhara consumers projected to be added in FY 2017-18 and FY 2018-19. Similarly, the Commission also sought details from APDCL regarding the number of Domestic A consumers at the end of FY 2016-17 and number of Domestic A consumers projected to be added in FY 2017-18 and FY 2018-19.

5.2.4 APDCL submitted conflicting replies on the above query in its replies dated December 28, 2017 and January 30, 2018, as shown in the Table below:

Table 38: Projected Consumer Addition in FY 2017-18 as submitted by APDCL

Consumer Category	Reply dated 28.12.2017	Reply dated 30.01.2018
Jeevan Dhara		
No. of consumers at beginning of FY 2016-17	12,69,674	12,69,674
Consumer addition in FY 2016-17	1,93,582	1,93,582
No. of consumers at end of FY 2016-17	14,63,256	14,63,256
Consumer addition in FY 2017-18	4,60,151	(47,760)
No. of consumers at end of FY 2017-18	19,23,407	14,15,496
Consumer addition in FY 2018-19	12,80,046	17,87,957
No. of consumers at end of FY 2018-19	32,03,453	32,03,453
Domestic A category		

Consumer Category	Reply dated 28.12.2017	Reply dated 30.01.2018
No. of consumers at beginning of FY 2016-17	19,82,036	19,82,036
Consumer addition in FY 2016-17	(3,31,601)	1,89,589
No. of consumers at end of FY 2016-17	16,50,435	2171625
Consumer addition in FY 2017-18	5,18,608	504286
No. of consumers at end of FY 2017-18	21,69043	2675911
Consumer addition in FY 2018-19	1129943	623075
No. of consumers at end of FY 2018-19	3298986	3298986

5.2.5 From the above Table, it can be observed that for both, Jeevan Dhara as well as Domestic A category, the number of consumers at the beginning of FY 2016-17 and the number of consumers at end of FY 2018-19, are consistent in the replies dated December 28, 2017 and January 30, 2018. The number of consumers at the beginning of FY 2016-17 is also consistent with APDCL's submission in previous submissions. However, the consumer addition in FY 2017-18 and FY 2018-19 are at wide variance in the replies dated December 28, 2017 and January 30, 2018, and APDCL has projection reduction in the consumer base for Jeevan Dhara in FY 2017-18, and has projected steep reduction in the consumer base for Domestic A category in FY 2016-17. Also, the projected addition of around 13 lakh to 18 lakh Jeevan Dhara consumers, and 6 lakh to 11 lakh Domestic A consumers, in one year appears difficult to achieve, considering past trends.

5.2.6 Hence, the Commission has considered the correct number of Jeevan Dhara consumers at the end of FY 2016-17 as 14,63,256. The Commission has considered that APDCL may add around 4.6 lakh and 5 lakh Jeevan Dhara consumers in FY 2017-18 and FY 2018-19, respectively. Similarly, the Commission has considered that APDCL may add around 5 lakh Domestic A consumers each in FY 2017-18 and FY 2018-19, respectively.

5.2.7 The sales to Jeevan Dhara consumers in FY 2017-18 has been projected based on the normative monthly consumption of 30 units applied to the average number of Jeevan Dhara consumers during the respective year.

5.2.8 For other categories, the Commission has considered the actual category-wise sales in FY 2016-17 as the base and computed the Compounded Annual Growth Rate

(CAGR) of category-wise sales over different periods of time, viz., 1 year, 2 years, 3 years, 4 years and 5 years. Depending on the growth trend and based on its judgement, the Commission has adopted the appropriate CAGR for projecting the category-wise sales for FY 2017-18. In cases, where the growth trend is negative, the Commission has considered Nil growth rate.

5.2.9 The growth rate considered for projecting the sales to different categories and the category-wise sales projected by the Commission for FY 2017-18 are given in the Table below:

Table 39: Category-wise Energy Sales projected by the Commission for FY 2017-18 (MU)

Consumer Category	Growth Rate considered	APDCL	Approved for APR
LT Category			
JEEVAN DHARA		464.57	609.60
DOMESTIC A Total	YoY	2892.92	2889.16
Domestic-B above 5 kW to 20 kW	3 Year	283.83	291.00
Commercial Load above 0.5 to 20 kW	5 Year	684.05	689.62
General Purpose Load upto 20 kW	YoY	119.81	121.03
Public Lighting	-	15.81	16.60
Agriculture upto 7.5 HP	2 Year	21.72	18.44
Small Industries Rural upto 20 kW	YoY	70.88	71.40
Small Industries Urban	4 Year	31.98	34.57
Temporary	-	6.25	8.20
LT TOTAL		**4591.83**	**4749.62**
HT Category			
HT Domestic 20 kW and above	-	32.04	35.68
HT commercial 20 kW & above	4 Year	398.46	426.38
Public Water works	4 Year	83.38	94.66
Bulk Supply Govt. Edu Inst.	4 Year	88.17	95.19
Bulk Supply Others	4 Year	438.93	409.94
HT Small Industries up to 50 kW	5 Year	28.94	26.93
HT Industries-1 50kw to 150 kW	3 Year	90.02	81.66
HT Industries-II above 150 kW	-	673.18	616.92

Consumer Category	Growth Rate considered	APDCL	Approved for APR
Tea, Coffee & Rubber	3 Year	554.10	437.09
Oil & Coal	-	94.18	111.97
HT Irrigation Load above 7.5 HP	-	24.52	21.44
HT Total		**2505.93**	**2357.85**
TOTAL Energy sales		**7097.75**	**7107.47**

Therefore, the Commission provisionally approves total sales of 7107 MU in the APR for FY 2017-18.

5.3 Distribution Loss

5.3.1 APDCL submitted that it has been adopting various loss reduction measures to reduce the Distribution Losses from time to time. APDCL has been able to contain the losses closer to the approved loss level despite the manifold increase in low end consumers under RGGVY/DDUGJY. With due consideration to achievements in previous years vis-à-vis commitment as per UDAY MoU, APDCL is confident of achieving the targeted loss level of 17.10%.

5.3.2 The Distribution Losses projected by APDCL for FY 2017-18 is given in the Table below:

Table 40: Distribution Losses Projected by APDCL for FY 2017-18

Particulars	MYT Order	Half Yearly actual	Projected
Distribution Losses	17.10	19.25	17.10

Commission's Analysis

5.3.3 The Commission has considered the Distribution Loss as approved in the MYT Order dated March 31, 2017, as shown in the Table below:

Table 41: Distribution Losses approved by the Commission for FY 2017-18

Parameters	MYT Order	Projected	Approved for APR
Distribution Loss trajectory	17.10%	17.10%	17.10%

5.4 Energy Balance

5.4.1 The Energy Balance for FY 2017-18 as submitted by APDCL, is shown in the following Table:

Table 42: Energy Balance for FY 2017-18 as submitted by APDCL (MU)

Sl.	Particulars	MYT Order	Half Yearly actual	Projected
1	Energy Sale (MU)	7524.00	3576.45	7097.75
2	Distribution Loss (MU)	1552.00	852.83	1464.08
2.1	Distribution Loss (%)	17.10%	19.25%	17.10%
3	Energy Requirements (MU)	9076.00	4429.27	8561.83
4	Transmission Loss (MU)	328.00	160.17	309.61
4.1	Transmission Loss (%)	3.49%	3.49%	3.62%
5	Total Energy for State Sale (MU)	9404.00	4589.45	8871.45
	Total State Loss (%)	**19.99**	**22.07**	**19.99**
6	Pooled Loss of PGCIL (MU)	140.00	57.22	113.73
	Pooled Loss of PGCIL (%)	1.47%	1.55%	1.27%
7	**Total energy requirements (MU)#**	**9544.00**	**4661.71**	**8985.17**

Excluding trading sales quantum

Commission's Analysis

5.4.2 The Commission has provisionally approved the Energy Balance for FY 2017-18 based on the approved category-wise sales, approved Distribution Loss, approved Transmission Loss for AEGCL, and proportionate PGCIL Losses on external power purchase. The quantum of Surplus Power sold outside the State has not been considered while computing the Energy Balance, and the revenue from the same has been considered under Other Income, as discussed subsequently in this Order.

5.4.3 The gross Energy Requirement for FY 2017-18 as approved by the Commission in the MYT Order, as submitted by APDCL, and as approved by the Commission in the APR are shown in the Table below:

Table 43: Energy Balance for FY 2017-18 approved by the Commission (MU)

Sl.	Particulars	MYT Order	APDCL	Approved for APR
1	Energy Sales	7524	7098	7107
2	Distribution Loss (%)	17.10%	17.10%	17.10%
3	Energy Requirement at T<>D periphery	9,076	8,562	8,574
4	Intra State (AEGCL) Transmission Loss (%)	3.49%	3.49%	3.49%
5	Energy input to Transmission System	9,404	8,871	8,884
6	Inter-State (PGCIL) Pooled Loss (%)	1.46%	1.27%	1.27%
7	**Total Energy Requirement**	**9,544**	**8,985**	**8,998**

Therefore, the Commission provisionally approves total Power Purchase Requirement of 8998 MU in the APR for FY 2017-18.

5.5 Power Purchase

5.5.1 APDCL submitted that total generation capacity of APGCL is allocated to APDCL and the allocation of CSGS Units to the State of Assam are also made available to APDCL. If there is surplus power, then APDCL exports the power and in case of deficit, APDCL resorts to various options, viz., procurement from Power Exchanges, bilateral sources, Deviation Settlement Mechanism (DSM), etc.

5.5.2 The power purchase cost for FY 2017-18 consists of the basic power purchase cost, transmission charges payable to AEGCL (inclusive of PGCIL charges and Special Charge on BST and supplementary bills). APDCL submitted that the variation between approved and projected power purchase expenses is mainly due to procurement of power from alternate sources rather than the allocated sources to mitigate the gradually increasing demand at significantly higher rates than approved.

5.5.3 APDCL has considered the Solar RPO and Non-Solar RPO as 4% and 5%, respectively, for FY 2017-18, in accordance with the AERC RPO Regulations, and considered purchase of Solar RECs and Non-Solar RECs at the rate of Rs. 1 /kWh and Rs. 1.50 /kWh, respectively, to meet the shortfall in purchase of Renewable

Energy with respect to the respective RPO.

5.5.4 APDCL has projected the quantum and cost of power purchase from various sources, based on the actual quantum and cost of purchase in the first half of FY 2017-18, and submitted the comparison of approved and actual source-wise purchase quantum and cost for FY 2017-18.

Commission's Analysis

5.5.5 The Commission has accepted APDCL's submissions of source-wise quantum of purchase for FY 2017-18, except for power purchase from APGCL, which is based on the generation projected for APGCL's stations for FY 2017-18 in the Tariff Order for APGCL dated March 19, 2018.

5.5.6 The Commission has considered the rate of purchase from various sources based on the following approach:

a) The cost of power purchase from APGCL has been considered as approved in the Tariff Order for APGCL dated March 19, 2018 for FY 2017-18. For FY 2017-18, the actual revenue considered for APGCL has been considered as the cost of purchase from APGCL, as the revised tariffs of APGCL shall become effective from FY 2018-19 onwards;

b) For purchase from most other sources in FY 2017-18, the actual available rate of power purchase for the period from April to September 2017 as submitted by APDCL, with the following exceptions:

   i. The purchase from BTPS has been considered based on the approved average per unit cost of Rs. 5.32 per kWh;

   ii. The rate for Suryataap Solar has been considered as Rs. 8.78 per kWh from January 2018 onwards, and the difference between the approved rate and provisional tariff has been adjusted over 12 months, as stipulated in the Tariff Order for Suryatap Solar, issued by the Commission.

5.5.7 For FY 2017-18, the Transmission Charges have been considered as approved in the Tariff Order for AEGCL dated March 19, 2018. For FY 2016-17, the actual revenue considered for AEGCL has been considered as the Transmission Charges, as the revised Tariff of AEGCL shall become effective from FY 2018-19 onwards.

5.5.8 The Commission has considered the Solar RPO and Non-Solar RPO as 4% and 5%, respectively, for FY 2017-18, in accordance with the AERC RPO Regulations, and considered purchase of Solar RECs and Non-Solar RECs at the rate of Rs. 1 /kWh and Rs. 1.50 /kWh, respectively, to meet the shortfall in purchase of Renewable Energy with respect to the respective RPO.

5.5.9 The source-wise power purchase quantum and costs provisionally approved by the Commission in the APR for FY 2017-18, are shown in the Table below:

Table 44: Power Purchase Quantum and Cost provisionally approved by the Commission for FY 2017-18

Source	MYT Order			APDCL Petition			Approved for APR		
	Quantum (MU)	Cost (Rs. Cr.)	Average rate (Rs/ kWh)	Quantum (MU)	Cost (Rs. Cr.)	Average rate (Rs/ kWh)	Quantum (MU)	Cost (Rs. Cr.)	Average rate (Rs/ kWh)
APGCL NET	**2209.03**	**582.63**	**2.64**	**1511.61**	**397.98**	**2.63**	**1549.51**	**452.30**	**2.92**
CSGS NER									
Kopili HEP	350.00	39.55	1.13	516.50	48.70	0.94	516.50	48.70	0.94
Kopili HEP - II	50.00	8.15	1.63	55.90	6.20	1.11	55.90	6.20	1.11
Khandong HEP	95.00	16.72	1.76	139.10	20.30	1.46	139.10	20.30	1.46
RHEP	560.00	113.68	2.03	580.90	146.20	2.52	580.90	146.20	2.52
DHEP	70.00	30.59	4.37	114.10	48.90	4.29	114.10	48.90	4.29
AGBPP	930.00	325.50	3.50	801.40	267.90	3.34	801.40	267.90	3.34
AGTPP	275.00	101.51	3.69	317.10	109.10	3.44	317.10	109.10	3.44
AGTPP2	70.00	5.22	0.75						
NHPC	150.00	42.45	2.83	226.10	69.50	3.07	226.10	69.50	3.07
OTPC	1100.00	314.60	2.86	1259.30	409.20	3.25	1259.30	409.20	3.25
SUBANSIRI HEP*	0.00	0.00	0.00						
KAMENG HEP*	28.00	9.80	3.50						
NTPC, BTPS*	1576.67	900.28	5.71	912.70	558.50	6.12	912.70	485.41	5.32
Pare HEP*	30.00	10.50	3.50						
CSGS NER GROSS	**5284.67**	**1918.55**	**3.63**	**4923.10**	**1684.42**	**3.42**	**4923.10**	**1611.33**	**3.27**
CSGS ER									
Farakka	250.00	83.25	3.33	269.68	102.60	3.80	269.68	102.60	3.80
Kahalgaon I	130.00	46.28	3.56	141.74	49.12	3.47	141.74	49.12	3.47
Kahalgaon II	540.00	211.14	3.91	568.68	197.90	3.48	568.68	197.90	3.48
Talcher	140.00	37.52	2.68	144.15	36.65	2.54	144.15	36.65	2.54

Source	MYT Order			APDCL Petition			Approved for APR		
	Quantum (MU)	Cost (Rs. Cr.)	Average rate (Rs/ kWh)	Quantum (MU)	Cost (Rs. Cr.)	Average rate (Rs/ kWh)	Quantum (MU)	Cost (Rs. Cr.)	Average rate (Rs/ kWh)
CSGS ER GROSS	**1060.00**	**378.19**	**3.57**	**1124.25**	**386.27**	**3.44**	**1124.25**	**386.27**	**3.44**
OTHERS									
HHPCPL (Champawati)	9.80	4.03	4.11	8.67	3.56	4.11	8.67	3.56	4.11
IOCL (AOD)	27.20	10.53	3.87						
MeECL	28.60	17.13	5.99	0.68	0.54	7.94	0.68	0.54	7.94
SECI Solar	31.00	18.68	6.03	35.55	22.25	6.26	35.55	22.25	6.26
JNNSM Solar Bundled	9.60	11.12	11.58	7.83	9.63	12.30	7.83	9.63	12.30*
Suryatap Solar*	0.56	0.54	9.72	6.51	6.33	9.72	6.51	5.95	9.14
Pohmura SHEP*	0.47	0.14	2.91						
JNNSM Coal Bundled	35.00	10.96	3.13	36.48	11.87	3.25	36.48	11.87	3.25*
TRADING PUR_NET	261.18	60.07	2.30	305.49	114.34	3.74	305.49	114.34	3.74
Swapping inflow outflow net									
Power Exchanges	586.65	134.93	2.30	947.51	366.77	3.87	947.51	366.77	3.87
Additional Solar RPO (RECs)		20.71			15.04			16.76	
Additional Non-solar RPO(RECs)		15.70			26.39			31.10	
OTHERS	**990.06**	**304.53**	**3.08**	**1348.72**	**576.72**	**4.28**	**1348.72**	**582.77**	**4.32**
DSM				276.57	70.21	2.54	276.57	70.21	2.54
TOTAL PURCHASE	**9543.76**	**3183.90**	**3.34**	**9184.25**	**3115.60**	**3.39**	**9222.15**	**3102.88**	**3.36**
Transmission & SLDC Charges		1192.39			1192.39			1194.99	
Total Power Purchase Cost	**9543.76**	**4376.29**	**4.59**	**9184.25**	**4307.99**	**4.69**	**9222.15**	**4297.87**	**4.66**

Note: * The weighted average rate for purchase of bundled solar power under JNNSM works out to Rs. 4.85 per kWh

Therefore, the Commission provisionally approves total Power Purchase cost of Rs. 4297.87 crore in the APR for FY 2017-18.

5.6 Operation and Maintenance (O&M) Expenses

5.6.1 The O&M expenses include Employee Expenses, R&M expenses and A&G expenses. APDCL submitted the O&M expenses calculated on normative basis, as shown in the Table below:

Table 45: O&M Expenses as submitted by APDCL for FY 2017-18 (Rs. Crore)

Sl. No.	Particulars	MYT Order	Actual
1	Employee Expenses	728.12	777.96
2	Repair & Maintenance	103.21	109.35
3	Administrative & General Expenses	38.82	59.96
	Total O&M expenses	**870.15**	**947.27***

Note: * - Incorrectly mentioned as Rs. 822.35 crore in APDCL's Petition

Employee Expenses

5.6.2 APDCL submitted that it has estimated employee expenses on the basis of actual O&M expenses incurred in FY 2016-17, and with due consideration to implementation of Revision of Pay (ROP) 16 with effect from January 2016.

Table 46: Employee Expenses as submitted by APDCL for FY 2017-18 (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18 Estimated
Employee Expenses	580.10	597.17	601.42	777.96*

Note: * - Incorrectly mentioned as Rs. 777.60 crore in APDCL's Petition

Repair and Maintenance (R&M) Expenses

5.6.3 APDCL has proposed R&M expenses based on Regulation 38 of the MYT Regulations, 2015. APDCL has proposed the value of 'K' as 3.50% and the WPI has been considered as 1.06%. The R&M expenses projected by APDCL are shown in the

Table below:

Table 47: R&M Expenses as submitted by APDCL for FY 2017-18 (Rs. Crore)

Particulars	MYT Order	Actual
Average GFA of previous year	2895.82	3091.49
K factor	3.50%	3.50%
WPI inflation	1.83%	1.06%
R&M Expenses	**103.21**	**109.35**

Administrative and General (A&G) Expenses

5.6.4 APDCL submitted that it has proposed A&G expenditure based on Regulation 38 of the MYT Regulations, 2015. APDCL has considered WPI as 1.06%, and a Provision of Rs. 3 crore. The A&G expenses projected by APDCL are shown in the Table below:

Table 48: A&G Expenses for FY 2017-18 as submitted by APDCL (Rs. Crore)

Particulars	MYT Order	APDCL
A&G Expenses for previous year	35.18	56.36
WPI inflation	1.83%	1.06%
Provision	3.00	3.00
A&G Expenses	**38.82**	**59.96**

Commission's Analysis

5.6.5 In the MYT Order, the Commission had approved the O&M expenses on normative basis as per Regulation 38.3 of MYT Regulations, 2015. APDCL has submitted employee expenses based on previous year's actual expenses and applicable increase towards Salaries, Dearness Allowance, etc., and normative R&M expenses and A&G expenses.

5.6.6 The Commission has computed the O&M Expenses for FY 2017-18 on normative basis as per Regulation 38 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 losses on account of controllable items as per Regulation 13 of the MYT Regulations, 2015 at the time of truing up for respective year.

5.6.7 For computation of employee expenses for FY 2017-18, the Commission has adopted the following approach:

a) The employee expenses approved after True-up for FY 2016-17 have been considered as base expenses for FY 2017-18.
b) CPI inflation has been computed as average increase of CPI index for the period from FY 2014-15 to FY 2016-17, which works out to 5.35%.
c) Considering the growth in the number of employees in FY 2017-18, growth factor of 3% has been considered.

5.6.8 As regards Revision of Pay (ROP), the Commission has considered that the implementation of Seventh Pay Commission has been started in APDCL for the last quarter of FY 2017-18. Hence, the Commission has provisionally considered Rs. 28.88 crore (1/4th of Rs. 115.52 crore as submitted by ADPCL) towards ROP in FY 2017-18.

5.6.9 The normative employee expenses approved for FY 2017-18 are shown in the following Table:

Table 49: Approved Employee Expenses for FY 2017-18 (Rs. Crore)

Particulars		FY 2017-18
Employee Expenses for Previous Year	EMP_{n-1}	640.20
Growth Factor	G_n	3%
CPI Inflation	CPI	5.35%
Employee Expenses		**694.69**
Add: Revision of Pay Impact		**28.88**
Total		**723.57**

5.6.10 The Commission directs APDCL to submit the actual impact on account of ROP, along with detailed justification and documentary evidences on basis of Audited Accounts for FY 2017-18 at time of Truing up.

5.6.11 **Therefore, the Commission provisionally approves Employee Expenses of Rs. 723.57 crore in the APR for FY 2017-18, inclusive of impact of ROP, subject to prudent check at the time of Truing up.**

5.6.12 For computation of R&M Expenses for FY 2017-18, the Commission has considered the following approach:

a) WPI inflation for computation of R&M Expenses works out to -0.22% as per MYT Regulations, 2015. However, it would not be appropriate to approve lower R&M expenses for FY 2017-18 than that allowed for the previous year in view of increase in transmission network every year. Hence, the Commission exercising its power under Regulation 116 *(Power to relax)* considered as average increase of WPI for the period from FY 2013-14 to FY 2015-16, which works out to 0.94%. The same WPI has also been considered for computation of normative R&M Expenses for FY 2016-17.

b) K-factor has been considered as 3.50% as approved in MYT Order. Since, K-factor has been computed on the basis of average GFA, for working out R&M expenses for FY 2017-18, average GFA for previous year has been considered.

5.6.13 The normative R&M expenses provisionally approved for FY 2017-18 are shown in the following Table:

Table 50: Approved R&M Expenses for FY 2017-18 (Rs. Crore)

Particulars		FY 2017-18
Average GFA for previous year	GFA_{n-1}	3,097.09
K Factor	K	3.50%
WPI Inflation	WPI	0.94%
R&M Expenses		**109.41**

Therefore, the Commission provisionally approves R&M Expenses of Rs. 109.41 crore in the APR for FY 2017-18.

5.6.14 For computation of A&G expenses for FY 2017-18, the Commission has adopted the following approach:

a) The A&G expenses approved after True-up for FY 2016-17 have been considered as base expenses for FY 2017-18.

b) As discussed in earlier para, the Commission has considered the WPI inflation of 0.94%, after relaxation.

c) For FY 2017-18, the Commission has considered total provision of Rs. 3 crore comprising Rs. 1 crore for consumer awareness initiatives, Rs. 1 crore for special initiatives proposed by APDCL, and Rs. 1 crore for making the Consumer Grievance Redressal Forum (CGRF) independent, as approved in the MYT Order dated March 31, 2017.

5.6.15 The normative A&G expenses provisionally approved for FY 2017-18 are shown in the following Table:

Table 51: Approved A&G Expenses for FY 2017-18 (Rs. Crore)

Particulars		FY 2017-18
A&G Expenses for Previous Year	$A\&G_{n-1}$	31.90
WPI Inflation	WPI	0.94%
Provision	Provision	3.00
A&G Expenses		**35.19**

5.6.16 As additional provision has been made for these special initiatives, APDCL shall maintain details of activities undertaken under such initiatives as well as maintain the expenses separately and submit the same to the Commission at the time of true-up.

Therefore, the Commission provisionally approves A&G Expenses of Rs. 35.19 crore in the APR for FY 2017-18.

5.6.17 In view of the above, the Commission provisionally approves the O&M expenses as shown in the following Table in the APR for FY 2017-18:

Table 52: Approved O&M Expenses for FY 2017-18 (Rs. Crore)

Particulars	Proposed by APDCL	Approved for APR
Employee Expenses	777.96	723.57
R&M Expenses	109.35	109.41
A&G Expenses	59.96	35.19
Total O&M Expenses	**947.27**	**868.17**

5.7 Capital Investment & Financing of Capital Investment

5.7.1 APDCL has not submitted details of the Capital Expenditure and Capitalisation for FY 2017-18 in the Petition.

Commission's Analysis

5.7.2 The Commission asked APDCL to submit the actual scheme-wise capital expenditure and capitalisation achieved in the first half of FY 2017-18 and scheme-wise capital expenditure and capitalisation estimated for the second half of FY 2017-18. APDCL submitted the actual scheme-wise capital expenditure and capitalisation in the first half of FY 2017-18, as shown in the Table below:

Table 53: Actual Capex in H1 of FY 2017-18 as submitted by APDCL (Rs. Crore)

Particulars	Approved Capex	Actual Capex till September 2017	Actual Capex till September 2017
APSEIP-T-4 Loan No. 3200-IND	168.75	55.69	55.69
APSEIP-T-2 Loan No. 3327-IND	140.00	72.80	72.80
NERPSIP-(DMS)	121.21	52.12	52.12
TDF 2011-14	0.00		138.00
State Annual Plan	225.00	11.00	11.00
Refurbishment of 33/11 kV Substations	40.00		
New & Renewable Energy Projects	10.00		
Network Renovation & Modernisation & Augmentation	100.00		
NEC Plan	69.00		
Integrated Power Development Scheme (IPDS)	333.00		
RGGVY 12th Plan	547.00	37.45	1279.23
DDUGJY	910.00		
Micro Grid System (SPV)	131.00		
Standalone System	21.00		
Total Capex	**2815.96**	**229.06**	**1608.84**

5.7.3 Based on the above actual capital expenditure and capitalisation in the first half of FY 2017-18, and Opening Capital Work in Progress, APDCL has proposed the capital expenditure and capitalisation for FY 2017-18 as shown in the Table below:

Table 54: Projected Capitalisation for FY 2017-18 as submitted by APDCL (Rs. Crore)

Sl.	Particulars	MYT Order	Actually achieved in H1 of FY 2017-18	Estimated for H2 of FY 2017-18	Estimated for FY 2017-18
1	Opening CWIP	3812.96	2897.86	1518.08	2897.86
2	Capital Expenditure	1000.00	229.06	1560.59	1789.65
3	Capitalisation	650.00	1608.84	618.25	2227.09
4	Closing CWIP	4162.96	1518.08	2460.42	2460.42

5.7.4 For the purpose of APR in this Order, the Commission has provisionally approved the projected capital expenditure of Rs. 1789.65 Crore as submitted by APDCL, while the capitalisation has been provisionally approved as Rs. 1041.35 crore, i.e., equal to capitalisation approved for FY 2016-17, in this Order because the Commission has considered lower addition of Jeevan Dhara consumers in FY2017-18, as stated earlier.

5.7.5 Accordingly, the Capital Expenditure and Capitalisation provisionally approved by the Commission for FY 2017-18 is shown in the following Table:

Table 55: Capital Expenditure and capitalisation approved by the Commission (Rs. Crore)

Particulars	MYT Order	APDCL Petition	Approved in APR
Opening CWIP	3812.96	2897.86	3,456.98
Capital Expenditure	1000.00	1789.65	1,789.65
Capitalisation	**650.00**	**2227.09**	**1,041.35**
Closing CWIP	4162.96	2460.42	4,205.28

5.7.6 The Commission clarifies that the approach adopted by the Commission does not bar APDCL from implementing the schemes as approved in Business Plan Order dated September 1, 2016. APDCL should make its best efforts to incur the capital expenditure provisionally approved in Business Plan order and envisaged in Power for All document.

5.7.7 As regards the funding of capitalisation, the Commission has not considered any equity funding based on APDCL's submission. The grant and debt funding has been considered in the same overall ratio as proposed by APDCL in its Petition, corresponding to the capitalisation considered for tariff purposes in this Order.

5.7.8 The funding of capitalised works, as approved by the Commission is shown in the following Table:

Table 56: Funding of Capitalised Works approved by the Commission (Rs. Crore)

Particulars	MYT Order	Approved
Grant	594.92	962.23
Equity	-	-
Debt	55.08	79.12
Total Capitalisation	650.00	1,041.35

Therefore, the Commission provisionally approves Capitalisation of Rs. 1041.35 crore in the APR for FY 2017-18.

5.8 Depreciation

5.8.1 APDCL submitted that Depreciation has been claimed in accordance with the MYT Regulations, 2015, after apportionment of depreciation for assets created out of grants.

5.8.2 APDCL submitted that the depreciation of Rs.51.57 crore claimed by APDCL is based on:

a) No funding from grant considered for Fixed Assets vis-à-vis CWIP transferred to APDCL consequent to unbundling of erstwhile ASEB as on 1st April, 2005. Total depreciation on the opening balance of GFA as on Transfer Scheme dated 1st April, 2005 amounting to Rs. 46.73 Crore calculated at the weighted average rate of 4.27% has been claimed in totality.

b) Depreciation on subsequent assets is claimed after apportionment of available grant. Total amount of depreciation claimed on this account is Rs. 16.89 Crore.

5.8.3 The depreciation claimed by APDCL for FY 2017-18 is shown in the Tables below:

Table 57: Depreciation calculation for FY 2017-18 as submitted by APDCL (Rs. Crore)

				Depreciation				
Particulars	**As on 01.04.17**	**Addition during the year**	**Rate of Dep**	**Accumulated as on 01.04.17**	**Assets fully depreciated**	**On OB**	**On Addition**	**Total**
Land & Rights			0%		-	-	-	-
i) Land owned under full title	15.61	6.42						
ii) Leasehold land	2.22		3.34%	0.07		0.07	-	0.07
Sub total:	**17.83**	**6.42**		**0.07**		**0.07**	**-**	**0.07**
Building	53.86	20.33	3.34%	22.28	-	1.80	0.34	2.14
Hydraulic	-	-		-		-	-	-
Other Civil Works	54.39	19.40	3.34%	24.90	-	1.82	0.32	2.14
Plant & Machinery	589.64	222.74	5.28%	352.61	214.60	19.80	5.88	25.68
Lines & Cable Network	1,194.58	361.17	5.28%	610.38	388.81	42.54	9.53	52.08
Vehicles	11.94	4.51	5.28%	10.55	11.23	0.04	0.12	0.16
Furniture & Fixtures	15.83	5.77	6.33%	10.53	9.20	0.42	0.18	0.60
Office Equipment	26.30	9.66	6.33%	19.41	16.80	0.60	0.31	0.91
SUB TOTAL	**1,964.37**	**650.00**	**4.27%**	**1,050.72**	**640.64**	**67.09**	**16.69**	**83.78**
Add: Consumers contribution deducted from service connection under O.H.lines & cable network	223.44		5.28%	91.68		11.80	-	11.80
Add: Assets not belonging to the entity	1,424.35	1,577.09						
	3,612.16	**2,227.09**		**1,142.41**	**640.64**	**78.89**	**16.69**	**95.58**

Table 58: Depreciation Claimed by APDCL for FY 2017-18 (Rs. Crore)

Particulars	State Govt. grant			Grant for assets not belonging to entity (RGGVY, MNRE etc.)	Consumer Contribution	Total
	As on 01.04.2005	As on 01.04.2017	Sub total	As on 01.04.2017		
Grants Available	-	1,991.56	1,991.56	3,210.74	223.44	5,425.74
GFA	1,095.63	868.74	1,964.37	1,424.35	223.44	3,612.16
CWIP	-	2,791.65	2,791.65	106.21		2,897.86
Total	**1,095.63**	**3,660.39**	**4,756.02**	**1,530.56**	**223.44**	**6,510.02**
Cumulative grants apportioned in the ratio of GFA and CWIP						
GFA	-	472.67	472.67	2,987.94	223.44	3,684.05
CWIP	-	1,518.89	1,518.89	222.80	-	1,741.69
Total	**-**	**1,991.56**	**1,991.56**	**3,210.74**	**223.44**	**5,425.74**
Depreciation calculated as per the Regulation on the GFA	46.73	37.05	83.78	-	-	83.78
Weighted Average Rate of Depreciation (%)	4.27%	4.27%	4.27%	-	-	
Depreciation to be deducted on the assets built on the grants component	-	20.16	20.16	-	-	20.16
Depreciation claimed	**46.73**	**16.89**	**63.62**	**-**	**-**	**63.62**

Commission's Analysis

5.8.4 For computation of depreciation, the Commission has considered the closing GFA for FY 2016-17 as approved in this Order as the Opening GFA for FY 2017-18. The capitalisation approved for FY 2017-18 has been considered as asset addition during the year. The Commission has considered the scheduled depreciation rates as specified in MYT Regulations, 2015.

5.8.5 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 in excess of 90% of the original cost of asset under different asset heads.

5.8.6 The Commission has not considered depreciation on assets funded through grants in accordance with Regulation 31 and 33 of MYT Regulations, 2015. The conversion of loan to grant under the UDAY MOU in FY 2017-18, as explained subsequently, has also been considered.

5.8.7 In view of the above, the Commission has provisionally approved depreciation for FY 2017-18, as given in the Table below:

Table 59: 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	17.83			
2	Building	53.86	28.81	3.34%	1.96
3	Plant & Machinery	589.64	315.44	5.28%	22.56
4	Vehicle	11.94	6.39	9.50%	0.13
5	Furniture & Fixtures	15.84	8.47	6.33%	0.51
6	Office Equipment	26.30	14.07	6.33%	1.77
7	Other Civil Work	54.38	29.09	3.34%	1.97
8	Lines & Cable Network	1,194.58	639.07	5.28%	46.13
9	Total	1964.37	1041.35		75.03
10	Asset excluding land	1,946.54	1041.35		
11	Less: Depreciation for Grants/Consumer Contribution				56.56
12	**Net Depreciation Allowed**				**18.47**

Therefore, the Commission approves Depreciation of Rs. 18.47 crore for FY 2017-18.

5.9 Interest and Finance Charges

5.9.1 APDCL submitted that in line with MYT Orders, APDCL is keeping in abeyance the claim on interest charges on GPF and NPS to provide tariff relief to that extent. APDCL requested the Commission to allow recovery of actual cost incurred on interest on GPF as well as NPS at an opportune time so as to safeguard its financial viability.

5.9.2 Accordingly, APDCL submitted interest and finance charges for FY 2017-18 as shown in the Table below:

Table 60: Interest and Finance Charges as submitted by APDCL for FY 2017-18 (Rs. Crore)

Particulars	MYT Order	Estimated Actual	Amount Claimed
Interest on State Govt. Loan	14.14	187.39	69.29
Bank Charges		3.69	3.69
Interest on GPF		34.16	
Interest on New Pension Fund		3.96	
Interest on R-APDRP Loan		47.20	47.20
Others		0.09	0.09
Less : Interest Capitalised		58.09	28.84
Other borrowing cost			
Total	**14.14**	**218.39**	**91.42**
Normative IWC claimed in this petition			23.92
Actual interest on WC			6.36
Difference			17.56
Net claim for Interest & Finance charges in this petition			**73.86**

Commission's Analysis

5.9.3 Interest on loan for FY 2017-18 is required to be allowed on normative basis as per Regulation 35 of the MYT Regulations, 2015. Accordingly, the normative closing loan of Rs. 432.80 crore for FY 2016-17 as approved in this Order is considered as the normative loan outstanding as on April 1, 2017.

5.9.4 As discussed in Chapter 4 of this Order, the consequences of UDAY MoU on the loans have been considered in FY 2017-18. The Commission has considered the amount of loan converted to Grant equivalent to the net normative loan outstanding as on April 1, 2016, i.e., Rs. 343.06 crore, as the net normative loan outstanding is lower than the amount of loan converted to Grant by the GoA.. However, this treatment of conversion of loan to grant is for the purpose of tariff only, and has no bearing on the actual conversion of loans to grant as per the books of accounts of APDCL. Further, as the entire net normative loan outstanding has been converted to grants, the Commission has not considered any conversion of loan to equity.

5.9.5 The treatment of loans under the UDAY MoU and as considered by the Commission in this Order is summarized below:

Table 61: Treatment of Loans under UDAY MoU as considered by the Commission (Rs. Crore)

Sl.	Particulars	Amount
	As per UDAY MoU	
A	GoA Loan for capital works & payment of liabilities (as on Sep 2015)	1510.04
B	GoA Loan to be taken over (75% of A)	1132.53
C	Grant (75% of B)	849.40
D	Equity (25% of B)	283.13
E	Total GoA Loan taken over under UDAY	1132.53
	Impact of UDAY considered by the Commission	
F	Net normative loan at the beginning of FY 2016-17	343.06
G	Loan converted to Grant in FY 2017-18	343.06
H	Loan converted to Equity in FY 2017-18	0.00

5.9.6 Therefore, the Commission has considered the net addition of loan during FY 2017-18 as the sum of loan of Rs. 79.12 crore taken for funding the capitalization during FY 2017-18 and the reduction of loan of Rs. 343.06 crore due to conversion of loan to grant, as discussed above. Thus, the Commission has considered a net reduction of loan of Rs. 263.95 crore in FY 2017-18. Further, the loan repayment has been considered equivalent to depreciation approved for the FY 2017-18 in this Order.

5.9.7 As only new loans are outstanding, the Commission has considered the Interest rate of 9.40% as proposed by APDCL in accordance with the UDAY MoU.

5.9.8 The interest and Finance Charges provisionally approved by the Commission for FY

2017-18 is shown in the Table below:

Table 62: Approved Interest on Loan for FY 2017-18 (Rs. Crore)

Particulars	FY 2017-18
Net Normative Opening Loan	432.80
Addition of normative loan during the year	(263.95)
Normative Repayment during the year	18.47
Net Normative Closing Loan	150.39
Interest Rate	9.40%
Interest Expenses	**27.41**
Financing Charges & Others	**3.78**
Total Interest & Finance Charges	**31.19**

Therefore, the Commission provisionally approves Interest and Finance Charges of Rs. 31.19 crore in the APR for FY 2017-18.

5.10 Interest on Working Capital

5.10.1 APDCL has submitted normative IoWC as per MYT Regulations, 2015, as shown in the Table below:

Table 63: IoWC for the FY 2017-18 as submitted by APDCL (Rs. Crore)

Sl.	Particulars	MYT Order	APDCL
1	O&M Expenses-One month	72.51	68.49
2	2-month Receivables	839.05	869.15
3	Maintenance of spares 15% of O&M	130.52	123.29
4	Less: One-month Power Purchase Cost	364.69	359.00
5	Less: consumer security deposit after adjustment of PDC dues	579.25	515.02
6	Total Working Capital requirement	98.14	186.91
7	Rate of Interest on Working Capital	12.80%	12.80%
8	**Interest on Working Capital**	**12.56**	**23.92**

Commission's Analysis

5.10.2 The Commission has computed IoWC in accordance with Regulations 37.3 and 37.4 of the MYT Regulations, 2015. The rate of Interest has been considered equal to State Bank of India Base Rate as on 1st April 2017 plus 350 basis points i.e., 12.60%

5.10.3 For computation of working capital requirement, normative O&M expenses including impact of ROP has been considered. Further, receivables have been considered equal to the projected revenue at existing tariff for FY 2017-18. The IoWC approved by the Commission for FY 2017-18 is shown in the following Table:

Table 64: IoWC approved by the Commission for FY 2017-18 (Rs. Crore)

Particulars	MYT Order	APDCL	Approved in APR
O&M Expenses-One month	72.51	68.49	72.35
2-month Receivables	839.05	869.15	881.92
Maintenance spares @ 15% of O&M expenses	130.52	123.29	130.23
Less: One-month Power Purchase Cost	364.69	359.00	358.16
Less: consumer security deposit	579.25	515.02	617.11
Total working Capital	98.14	186.91	109.23
Rate of Interest on Working Capital	12.80%	12.80%	12.60%
Interest on Working Capital	**12.56**	**23.92**	**13.76**

Therefore, the Commission provisionally approves IoWC of Rs. 13.76 crore in the APR for FY 2017-18.

5.11 Interest on Consumers' Security Deposit

5.11.1 APDCL has projected the Interest on Consumers' Security Deposit (CSD) as Rs 15.97 Crore.

Commission's Analysis

5.11.2 The Commission has provisionally approved the interest on CSD at the same level as approved for FY 2016-17, i.e., Rs. 15.37 crore, in the APR for FY 2017-18, which shall be trued up based on actuals.

5.12 Provision for Bad and Doubtful Debts

5.12.1 APDCL submitted that it has projected the provision for bad and doubtful debts as Rs. 14.42 Crore as against Rs. 12.42 Crore approved in the MYT Order dated March 31, 2017, under Other Debits.

Commission's Analysis

5.12.2 Regulation 94.9 (and similarly Regulation 81.7) of the MYT Regulations, 2015 specify as under:

"94.9.1 The Commission may allow a provision for bad and doubtful debts upto 1% of the amount shown as receivables in the audited accounts of the Distribution Licensee, duly allocated for the Supply Business:

Provided that where the amount of such provisioning for bad and doubtful debts exceeds five (5) per cent of the amount shown as receivables in the audited accounts of the Distribution Licensee duly allocated for the Wheeling Business, no such appropriation shall be allowed which would have the effect of increasing the provisioning beyond the said maximum."

5.12.3 The trade receivables appearing in the audited accounts for FY 2016-17 are Rs. 1442.39 crore. Accordingly, the Commission provisionally allows the Provision for Bad and Doubtful Debts at 1% of Rs. 1442.39 crore, i.e., Rs. 14.42 crore, in the APR for FY 2017-18, as shown in the Table below:

Table 65: Provision for Bad and Doubtful Debts approved by the Commission for FY 2017-18 (Rs. Crore)

Particulars	MYT Order	APDCL	Approved in APR
Provision for Bad and Doubtful Debts	13.26	14.42	14.42

5.13 Return on Equity

5.13.1 APDCL submitted that it has considered the Equity Capital as Rs. 251.45 Crore as per Annual Accounts including the Share Application money pending allotment. APDCL has considered that the rate of return as 16% as specified in the MYT Regulations, 2015, and projected the ROE for FY 2017-18 as Rs. 40.23 crore.

Commission's Analysis

5.13.2 As equity shares are yet to be issued against the Share Application Money Pending Allotment, the Commission has not considered RoE on this amount, in line with the practice followed in earlier Orders. The Commission has approved ROE in accordance with Regulation 34 of the MYT Regulations, 2015. The Commission has considered the addition of equity as Nil during FY 2017-18, based on the funding of capitalisation approved in this Order. Further, as stated in Chapter 4 of this Order, the Commission has not considered any conversion of loan to equity in FY 2017-18. Therefore, the ROE provisionally approved by the Commission for FY 2017-18 at 16% is shown in the Table below:

Table 66: Return on Equity approved by the Commission for FY 2017-18 (Rs. Crore)

Sr. No.	Particulars	MYT Order	APDCL	Approved in APR
1	Opening Equity Capital	162.77	251.45	162.77
2	Equity addition during the year	-	-	-
3	Closing Equity	162.77	251.45	162.77
5	Rate of Return on Equity	16.00%	16.00%	16.00%
6	**Return on Equity**	**26.04**	**40.23**	**26.04**

Therefore, the Commission provisionally approves RoE of Rs. 26.04 crore in the APR for FY 2017-18.

5.14 Non-Tariff Income

5.14.1 The Non-Tariff Income projected by APDCL for FY 2017-18 is shown in the Table below:

Table 67: Non-Tariff Income as submitted by APDCL for the FY 2017-18 (Rs. Crore)

Particulars	MYT Order	APDCL
Rentals from Meters, Service Lines, Capacitors etc.		22.04
Income from recoveries on account of theft of energy/Malpractices		0.29
Delayed Payment Charges from consumers		147.81
Miscellaneous recoveries		24.9
Cross Subsidy Surcharge on Open Access Consumer		9.96
Wheeling Charges collected		2.92
Total	**166.28**	**207.92**

Commission's Analysis

5.14.2 The Commission has considered average increase of 5% over the actual Non-Tariff Income for FY 2016-17, as also considered by APDCL for its projections. The Non-Tariff Income provisionally approved by the Commission for FY 2017-18 is shown in the Table below:

Table 68: Non-Tariff Income approved by the Commission for FY 2017-18 (Rs. Crore)

Particulars	MYT Order	APDCL	Approved in APR
Non-Tariff Income	**166.28**	**207.92**	**207.92**

Therefore, the Commission provisionally approves Non-Tariff Income of Rs. 207.92 crore in the APR for FY 2017-18.

5.15 Other Income

5.15.1 The Other Income projected by APDCL for FY 2017-18 is shown in the Table below:

Table 69: Other Income as submitted by APDCL for FY 2017-18 (Rs. Crore)

Particulars	MYT Order	APDCL's Claim
Interest on loans to staff		0.00
Interest on HB advances to staff		0.00
Interest on Scooter /Motor Cycle Advances to staff		0.00
Interest from banks and Investment		60.48
Gain on sale of fixed assets		0.00
Rent from residential buildings		0.03
Miscellaneous receipts		14.51
Income from Sale of Scrap		0.00
Receivable for unfunded GPF liability from Pension Trust		51.11
Income on Sale of surplus power		31.47
Total	**172.96**	**157.61**

Commission's Analysis

5.15.2 The Commission has considered annual increase of 5% over the actual Other Income for FY 2016-17, for all heads of Other Income, except Income on Sale of Surplus Power. The Commission has assessed that there will be surplus energy of 224 MU in FY 2017-18, based on the Energy Balance approved by the Commission in this Order. The Commission has considered the average rate for sale of surplus power at the same rate actually received in FY 2016-17, i.e., Rs. 1.57 per kWh, for the purposes of projecting the revenue from sale of surplus power.

5.15.3 The Other Income provisionally approved by the Commission for FY 2017-18 is shown in the Table below:

Table 70: Other Income approved by the Commission for the FY 2017-18 (Rs. Crore)

Particulars	MYT Order	APDCL	Approved in APR
Other Income	**172.96**	**157.61**	**187.24**

Therefore, the Commission provisionally approves Other Income of Rs. 187.24 crore in the APR for FY 2017-18.

5.16 Revenue from sale of electricity

5.16.1 APDCL has submitted the actual category-wise revenue in the first half of FY 2017-18 and projected the revenue from sale of electricity at existing tariff based on the approved tariff and the category-wise sales projected by APDCL for FY 2017-18. APDCL has projected the revenue from sale of electricity, excluding the Targeted Subsidy as Rs. 4869.07 crore.

Commission's Analysis

5.16.2 The Commission has estimated the revenue from sale of electricity at existing tariff based on the approved tariff and the projected category-wise sales for FY 2017-18. The Commission has considered the full-cost tariff, without considering any Targeted Subsidy, for the purposes of estimating the revenue from sale of electricity at existing tariff.

5.16.3 The revenue from sale of electricity at existing tariff as submitted by APDCL and as estimated by the Commission for FY 2017-18 is given in the Table below:

Table 71: Revenue from Sale of Electricity for FY 2017-18 (Rs. Crore)

Particulars	APDCL Petition	Approved in APR
Revenue from Sale of Electricity	4869.07	5291.50

5.17 Targeted Subsidy from GoA

5.17.1 APDCL submitted that the GoA has been providing Targeted Subsidy to some specific consumer categories at the following rates:

Table 72: Targeted Subsidy provided by GoA for FY 2017-18 (Rs./kWh)

Sl.	Category	Existing Subsidy
1	Jeevan Dhara	1.31
2	Domestic A (upto 120 units per month)	1.01
3	LT Commercial (upto 120 units per month)	0.60
4	Small Industries – Rural (upto 120 units per month)	0.30
5	Small Industries – Urban (upto 120 units per month)	0.30

5.17.2 APDCL has estimated the revenue from Targeted Subsidy as Rs. 345.81 crore for FY 2017-18, which has been considered for meeting the revenue requirement.

Commission's Analysis

5.17.3 As stated above, the Commission has considered the full-cost tariff, without considering any Targeted Subsidy, for the purposes of estimating the revenue from sale of electricity at existing tariff. Hence, the Commission has considered the revenue from Targeted Subsidy as NIL for FY 2017-18, for the purposes of APR.

5.18 Operational Funding Requirement (OFR)

5.18.1 APDCL submitted that the GoA has provided an amount of Rs. 560.58 Crore (Rs. 230.28 Crore pertaining to balance amount for FY 2016-17 + Rs. 330.30 Crore for FY 2017-18) as OFR as per the UDAY MOU.

Commission's Analysis

5.18.2 As elaborated in Chapter 4 of this Order, the OFR amount provided by GoA is for liquidating of Outstanding Power Purchase liabilities and is not intended to meet the Revenue Gap or targeted subsidy requirement. For various reasons, APDCL has been unable to meet its obligations to pay the power purchase liabilities, and the GoA, as the owner of APDCL, has provided OFR cash support under the terms of the UDAY MOU. Under these circumstances, the amount of OFR support provided by GoA cannot be considered as Income for the purposes of APR.

Hence, the Commission has not considered any Operational Funding Support from GoA in the APR for FY 2017-18.

5.19 Aggregate Revenue Requirement (ARR) and Revenue Gap/(Surplus)

5.19.1 Considering the above heads of expense and revenue provisionally approved in the APR for FY 2017-18, the summary of ARR as submitted by APDCL and as provisionally approved by the Commission for FY 2017-18 is given in the Table below:

Table 73: ARR & Revenue Gap/(Surplus) approved by the Commission for FY 2017-18 (Rs. Crore)

Sl.	Particulars	MYT Order	APDCL	Approved in APR
1	Power Purchase Expenses	4376.29	4307.99	4297.87
2	O&M Expenses	870.15	947.27	868.17
a)	*Employee Expenses*	*728.12*	*777.96*	*723.57*
b)	*R&M Expenses*	*103.21*	*109.35*	*109.41*
c)	*A&G Expenses*	*38.82*	*59.96*	*35.19*
3	Depreciation	21.93	63.62	18.47
4	Interest and Finance Charges	14.14	73.86	31.19
5	Interest on Working Capital	12.56	23.92	13.76
6	Interest on CSD	40.00	15.95	15.37
7	Return on Equity	26.04	40.23	26.04
8	Other Debits, incl. Provisioning for Bad Debts	12.42	14.42	14.42
9	Revenue Gap/(Surplus) of FY 2014-15	657.96	657.96	657.96
10	Carrying Cost on Revenue Gap/(Surplus) of FY 2014-15	179.29	179.29	179.29
11	Revenue Gap/(Surplus) of FY 2015-16	354.52	354.52	354.52
12	Carrying Cost on Revenue Gap/(Surplus) of FY 2015-16	45.38	45.38	45.38
13	Revenue Gap/(Surplus) of FY 2016-17	(686.74)	(242.25)	(686.74)*
14	**Total Expenditure**	**5923.95**	**6482.16**	**5835.71**
15	Less: Non-Tariff Income	166.28	207.92	207.92
16	Less: Other Income	172.96	157.60	187.24
17	**Aggregate Revenue Requirement**	**5584.71**	**6116.64**	**5440.55**

Sl.	Particulars	MYT Order	APDCL	Approved in APR
	Revenue			
18	Revenue at Approved Tariff	5584.71	4869.07	5291.50
19	State Government Targeted Subsidy		345.81	
20	State Government - Operational Fund Requirement		560.58	
21	**Total Revenue incl. subsidy**	**5584.71**	**5775.46**	**5291.50**
22	**Revenue Gap/(Surplus)**	**0.00**	**341.18**	**149.04**

Note: * The differential Revenue Gap/(Surplus) for FY 2016-17 after true up has been adjusted in the ARR of FY 2018-19, as discussed in Chapter 6 of this Order. Hence, the amount of Revenue Gap/(Surplus) of FY 2016-17 already considered for FY 2017-18 in the MYT Order will be retained at the time of truing up for FY 2017-18, in order to avoid double-accounting.

5.19.2 The APR reveals a Revenue Gap of Rs. 149.04 crore for FY 2017-18. It is only indicative, in the absence of Audited Annual Accounts for FY 2017-18. Hence, this is not carried forward to the ARR for FY 2018-19. It will be considered during the Truing up process for FY 2017-18, after the Audited Annual Accounts are made available.

6 Revised ARR for FY 2018-19

6.1 Introduction

6.1.1 The Commission, vide its Order dated March 31, 2017 had approved the ARR for FY 2018-19. This Chapter deals with the determination of revised ARR for FY 2018-19 in accordance with the provisions of MYT Regulations, 2015, submissions made by APDCL with respect to the amounts approved in the MYT Order dated March 31, 2017.

6.2 Energy Sales

6.2.1 APDCL submitted that Assam is operating under an energy deficit scenario. The State's peak demand for power has grown by over 30% during the period from 2011 to 2017. APDCL's present power demand ranges between 1200 MW – 1750 MW. The significant increase in demand is because of massive rural electrification undertaken under RGGVY/DDUGJY of Govt. of India, which has led to manifold increase in BPL consumers in a small span of time. Total number of BPL consumers has increased to about 16 lakh against around 78,000 at the beginning of FY 2008-09.

6.2.2 APDCL has revised the sales projections based on the latest trend in sales, and considering the Saubhagya Scheme, under which, more than 24 lakh households of Assam are to be electrified by December, 2018.

6.2.3 APDCL submitted that category-wise sales are projected on the basis of MoM growth rates for previous years and impact of addition of new 24.10 lakh households under SAUBHAGYA scheme. The category-wise sales projected by APDCL for FY 2018-19 are given in the Table below:

Table 74: Category-wise Energy Sales Projected by APDCL for the FY 2018-19 (MU)

Category	MYT Order	APDCL
LT GROUP		
JEEVAN DHARA	637	853
DOMESTIC A Total	3667	3078
Domestic-B above 5 kW to 20 kW	325	309
Commercial Load above 0.5 to 20 kW	758	742

Category	MYT Order	APDCL
General Purpose Load upto 20 kW	149	122
Public Lighting	26	15
Agriculture upto 7.5 HP	19	31
Small Industries Rural upto 20 kW	63	79
Small Industries Urban	33	31
Temporary	6	1
LT TOTAL	**5683**	**5267**
HT GROUP		
HT Domestic 20 kW and above	48	29
HT commercial 20 kW & above	436	423
Public Water works	73	80
Bulk Supply Govt. Edu Inst.	102	90
Bulk Supply Others	429	492
HT Small Industries up to 50 kW	24	33
HT Industries-1 50kw to 150 kW	94	104
HT Industries-II above 150 kW	812	735
Tea, Coffee & Rubber	458	721
Oil & Coal	217	79
HT Irrigation Load above 7.5 HP	22	28
HT TOTAL	**2715**	**2813**
GRAND TOTAL	**8399**	**8080**

Commission's Analysis

6.2.4 As elaborated in Chapter 5 of this Order, the Commission has considered that APDCL may add around 5 lakh Jeevan Dhara consumers in FY 2018-19. Similarly, the Commission has considered that APDCL may add around 5 lakh Domestic A consumers in FY 2018-19.

6.2.5 The sales to Jeevan Dhara consumers in the FY 2018-19 has been projected based on the normative monthly consumption of 30 units applied to the average number of Jeevan Dhara consumers during the FY 2018-19.

6.2.6 For other categories, the Commission has considered the provisionally approved category-wise sales in FY 2017-18 as the base and considered the same category-wise growth rate considered for FY 2017-18, for projecting the category-wise sales for FY 2018-19.

6.2.7 The sales to the Domestic A category have been projected with YOY Combined annual growth rate of 9% by the Commission, as the base sales in FY 2017-18 already include the sales shifted from Jeevan Dhara category to Domestic A, on account of consumption being in excess of 30 units per month.

6.2.8 The category-wise sales projected by the Commission for FY 2018-19 are given in the Table below:

Table 75: Category-wise Energy Sales projected by the Commission for FY 2018-19 (MU)

Consumer Category	MYT Order	APDCL	Commission
LT GROUP			
JEEVAN DHARA	637	853	782
DOMESTIC A	3667	3078	3163
Domestic-B above 5 kW to 20 kW	325	309	325
Commercial Load above 0.5 to 20 kW	758	742	754
General Purpose Load upto 20 kW	149	122	125
Public Lighting	26	15	17
Agriculture upto 7.5 HP	19	31	23
Small Industries Rural upto 20 kW	63	79	80
Small Industries Urban	33	31	37
Temporary	6	1	9
LT TOTAL	**5683**	**5267**	**5314**
HT GROUP			
HT Domestic 20 kW and above	48	29	36
HT commercial 20 kW & above	436	423	485
Public Water works	73	80	103
Bulk Supply Govt. Edu Inst.	102	90	105
Bulk Supply Others	429	492	429
HT Small Industries up to 50 kW	24	33	28
HT Industries-1 50kw to 150 kW	94	104	85
HT Industries-II above 150 kW	812	735	617

Consumer Category	MYT Order	APDCL	Commission
Tea, Coffee & Rubber	458	721	449
Oil & Coal	217	79	112
HT Irrigation Load above 7.5 HP	22	28	21
HT TOTAL	**2715**	**2813**	**2470**
GRAND TOTAL	**8399**	**8080**	**7784**

Therefore, the Commission approves total sales of 7784 MU for FY 2018-19.

6.3 Distribution Loss

6.3.1 APDCL submitted that it has been able to contain the loss level close to the approved level in the last 2 years. APDCL has proposed the Distribution Loss as 16.85% for FY 2018-19.

Commission's Analysis

6.3.2 The Commission has considered the Distribution Loss for FY 2018-19 as approved in MYT Order dated March 31, 2017, as shown in the Table below:

Table 76: Distribution Losses approved by the Commission for FY 2018-19

Particulars	MYT Order	APDCL Projection	Approved
Distribution Loss	16.85%	16.85%	16.85%

6.4 Energy Balance

6.4.1 The Energy Balance for FY 2018-19 as projected by APDCL is shown in the following Table:

Table 77: Energy Balance for FY 2018-19 as projected by APDCL (MU)

Sl.	Particulars	MYT Order	APDCL
1	Energy Sale (MU)	8399.00	8079.64
2	Distribution Loss (MU)	1702.00	1637.28
2.1	Distribution Loss (%)	16.85%	16.85%
3	Energy Requirements (MU)	10101.00	9716.92

Sl.	Particulars	MYT Order	APDCL
4	Transmission Loss (MU)	360.00	334.39
4.1	Transmission Loss (%)	3.44%	3.44%
5	Total Energy for State sale (MU)	10461.00	10051.32
	Total State Loss (%)	**19.71**	**19.62**
6	Pooled Loss of PGCIL (MU)	156.00	149.89
	Pooled Loss of PGCIL (%)	1.47%	1.47%
7	Total Energy Requirement (MU)	10617.00	10201.21

Commission's Analysis

6.4.2 The Commission approves the Energy Balance for FY 2018-19 based on the projected sales, approved Distribution Loss, approved Transmission Loss trajectory for AEGCL, and proportionate PGCIL Losses on external power purchase. No sale of Surplus Power outside the State has been considered while computing the Energy Balance, which has been computed only for achieving the sales within the State. The Energy Balance approved by the Commission for FY 2018-19 is shown in the Table below:

Table 78: Energy Balance for FY 2018-19 approved by the Commission (MU)

Sl.	Particulars	MYT Order	APDCL	Approved
1	Energy Sales	8399	8080	7784
2	Distribution Loss (%)	16.85%	16.85%	16.85%
3	Energy Requirement at T<>D periphery	10,101	9,717	9,361
4	Intra State (AEGCL) Transmission Loss (%)	3.44%	3.32%	3.44%
5	Energy input to Transmission System	10,461	10,051	9,695
8	Inter-State (PGCIL) Pooled Loss (%)	1.47%	1.47%	1.47%
9	**Total Energy Requirement**	**10,617**	**10,201**	**9,839**

Therefore, the Commission approves total Power Purchase Requirement of 9839 MU for FY 2018-19.

6.5 Power Purchase

6.5.1 APDCL submitted that it is largely dependent on APGCL and Central Generating Stations to meet the Base Load, however, to meet the Peak demand of the State, APDCL has tied up with short-term Traders as well as through Deviation Settlement

Mechanism (DSM) and Power Exchanges to meet the deficit.

6.5.2 APDCL submitted that it has projected the source-wise power purchase based on the already approved level for all LTA with adjustment on new addition of 50 MW Wind Power under JNNSM (w.e.f. October, 2018) and corresponding adjustment in RPO compliance.

6.5.3 APDCL has considered the Solar RPO and Non-Solar RPO as 5% and 6%, respectively, for FY 2018-19, in accordance with the AERC RPO Regulations, and considered purchase of Solar RECs and Non-Solar RECs at the rate of Rs. 1 /kWh and Rs. 1.50 /kWh, respectively, to meet the shortfall in purchase of Renewable Energy with respect to the respective RPO.

6.5.4 APDCL has projected the quantum and cost of power purchase from various sources, and submitted the comparison of approved and projected source-wise purchase quantum and cost for FY 2018-19.

Commission's Analysis

6.5.5 The Commission has considered the source-wise quantum of purchase for FY 2018-19 at the same level as projected for FY 2017-18, with the following exceptions:

a) Power purchase from APGCL is based on the generation projected for APGCL's stations for FY 2018-19 in the Tariff Order for APGCL dated March 19, 2018;
b) For Myntriang SHEP, the Commission has considered the generation based on actual generation in FY 2016-17;
c) The energy banking quantum has not been considered for FY 2018-19, as it cannot be projected;
d) The quantum of power purchase from Power Exchanges has been considered in order to balance the total energy requirement.

6.5.6 The Commission has considered the rate of purchase from various sources based on the rate of power purchase provisionally approved for FY 2017-18, with the following exceptions:

a) Cost of power purchase from APGCL has been considered as approved in the Tariff Order for APGCL dated March 19, 2018.

b) The rate for purchase from Myntriang SHEP has been considered as Rs. 2.18 per kWh, based on the provisional tariff approved by the Commission vide Order dated November 29, 2017.

c) The rate for Suryataap Solar has been considered as Rs. 8.78 per kWh from January 2018 onwards, and the difference between the approved rate and provisional tariff has been adjusted over 12 months, as stipulated in the Tariff Order for Suryatap Solar, issued by the Commission.

d) APDCL is required to purchase the required short-term power either from the Power Exchanges or through competitive bidding. The purchase through bilateral sources has been clubbed with the purchase through Power Exchanges, and the purchase rate has been considered as Rs.3 per unit, based on average prices during peak period in last three years upto FY 2017-18.

6.5.7 For FY 2018-19, the Transmission Charges have been considered as approved in the Tariff Order for AEGCL dated March 19, 2018.

6.5.8 The Commission has considered the Solar RPO and Non-Solar RPO as 5% and 6%, respectively, for FY 2018-19, in accordance with the AERC RPO Regulations, and considered purchase of Solar RECs and Non-Solar RECs at the rate of Rs. 1 /kWh and Rs. 1.50 /kWh, respectively, to meet the shortfall in purchase of Renewable Energy with respect to the respective RPO.

6.5.9 The source-wise power purchase quantum and costs approved by the Commission for FY 2018-19, is shown in the Table below:

Table 79: Power Purchase Quantum and Cost approved by the Commission for the FY 2018-19

Source	MYT Order			APDCL			Approved		
	Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs./ kWh)	Quantum (MU)	Cost (Rs. Cr.)	Quantum (MU)	Cost (Rs. Cr.)	Total Cost (Rs. Crore)	Average Rate (Rs./ kWh)
APGCL NET	**2386.82**	**646.77**	**2.71**	**2386.82**	**646.77**	**2.71**	**1959.26**	**592.13**	**3.02**
CSGS NER									
Kopili HEP	350.00	39.55	1.13	350.00	39.55	1.13	516.50	48.70	0.94
Kopili HEP - II	50.00	8.15	1.63	50.00	8.15	1.63	55.90	6.20	1.11
Khandong HEP	95.00	16.72	1.76	95.00	16.72	1.76	139.10	20.30	1.46
RHEP	560.00	113.68	2.03	560.00	113.68	2.03	580.90	146.20	2.52
DHEP	70.00	30.59	4.37	70.00	30.59	4.37	114.10	48.90	4.29
AGBPP	930.00	325.50	3.50	930.00	325.50	3.50	801.40	267.90	3.34
AGTPP	275.00	101.51	3.69	275.00	101.51	3.69	317.10	109.10	3.44
AGTPP2	70.00	5.22	0.75	70.00	5.22	0.75			
NHPC	150.00	42.45	2.83	150.00	42.45	2.83	226.10	69.50	3.07
OTPC	1100.00	314.60	2.86	1100.00	314.60	2.86	1259.30	409.20	3.25
KAMENG HEP	240.00	84.00	3.50						
NTPC, BTPS	2600.00	1484.60	5.71	2600.00	1484.60	5.71	912.70	485.41	5.32
Pare HEP	130.00	45.50	3.50						
CSGS NER GROSS	**6620.00**	**2612.07**	**3.95**	**6250.00**	**2482.57**	**3.97**	**4923.10**	**1611.33**	**3.27**
CSGS ER									
Farakka	250.00	83.25	3.33	250.00	83.25	3.33	269.68	102.60	3.80
Kahalgaon I	130.00	46.28	3.56	130.00	46.28	3.56	141.74	49.12	3.47
Kahalgaon II	540.00	211.14	3.91	540.00	211.14	3.91	568.68	197.90	3.48
Talcher	140.00	37.52	2.68	140.00	37.52	2.68	144.15	36.65	2.54
CSGS ER GROSS	**1060.00**	**378.19**	**3.57**	**1060.00**	**378.19**	**3.57**	**1124.25**	**386.27**	**3.44**

Source	MYT Order			APDCL			Approved		
	Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs./ kWh)	Quantum (MU)	Cost (Rs. Cr.)	Quantum (MU)	Cost (Rs. Cr.)	Total Cost (Rs. Crore)	Average Rate (Rs./ kWh)
OTHERS									
HHPCPL (Champawati)	9.80	4.03	4.11	9.80	4.03	4.11	8.67	3.56	4.11
IOCL (AOD)	27.20	10.53	3.87	27.20	10.53	3.87			
MeECL	28.60	17.13	5.99	28.60	17.13	5.99	0.68	0.54	7.94
SECI Solar	31.00	18.68	6.03	31.00	18.68	6.03	35.55	22.25	6.26
JNNSM Solar Bundled	9.60	11.24	11.71	9.60	11.12	11.58	7.83	9.63	12.30*
Suryatap Solar	0.56	0.54	9.72	0.56	0.54	9.64	6.51	5.08	7.80
Pohmura SHEP	4.00	1.16	2.91	4.00	1.16	2.90			
JNNSM Coal Bundled	35.00	10.96	3.13	35.00	10.96	3.13	36.48	11.87	3.25*
Virtual Pareng,SHEP	23.00	8.05	3.50	23.00	8.05	3.50			
DD keyei SHEP	37.00	12.95	3.50	37.00	12.95	3.50			
Yammeng SHEP	19.00	6.65	3.50	19.00	6.65	3.50			
TRADING PUR_NET		0.00	2.30	2.96	1.04	3.51			
Power Exchanges	325.35	74.83	2.30	276.67	96.83	3.50	1736.89	521.07	3.00
Additional Solar RPO (RECs)		30.04			27.50			25.58	
Additional Non-solar PO(RECs)		17.40			35.05			45.34	
OTHERS	**550.11**	**224.19**	**4.08**	**504.39**	**262.22**	**5.20**	**1832.61**	**644.92**	**3.52**
TOTAL PURCHASE	**10616.93**	**3861.22**	**3.64**	**10201.21**	**3769.75**	**3.70**	**9839.22**	**3234.65**	**3.29**
Transmission & SLDC Charges		**1111.72**			**1111.72**			**1160.64**	
Total Power Purchase Cost	**10616.93**	**4972.94**	**4.68**	**10201.21**	**4881.47**	**4.79**	**9839.22**	**4395.29**	**4.47**

Note: * The weighted average rate for purchase of bundled solar power under JNNSM works out to Rs. 4.85 per kWh

Therefore, the Commission approves total Power Purchase Cost of Rs. 4395.29 crore for FY 2018-19.

6.6 Operation and Maintenance (O&M) Expenses

6.6.1 The O&M expenses include Employee Expenses, R&M expenses and A&G expenses.

6.6.2 Employee Expenses

APDCL has projected normative employee expenses for FY 2018-19, considering the implementation of ROP 16 with effect from January, 2016. APDCL submitted that as the prevailing attrition ratio is high, no additional provision against new recruitment is sought as the same is estimated to be mitigated within the existing level. The Employee Expenses projected by APDCL for FY 2018-19 is shown in the Table below:

Table 80: Employee Expenses projected for FY 2018-19 by APDCL (Rs. Crore)

Particulars		MYT Order	APDCL
Employee Expenses of Previous year	Emp n-1	728.19	777.96
Growth Factor	Gn	3%	3%
CPI Inflation	CPI	7.21%	5.35%
Subtotal		**804.08**	**844.17**
Provision against ROP 16			115.52
Total		**804.08**	**959.69**

APDCL has projected the Employee expenses of Rs.959.69 Crore, for FY 2018-19.

6.6.3 Repair and Maintenance (R&M) Expenses

APDCL has proposed R&M expenses based on Regulation 38 of the MYT Regulations, 2015. APDCL has proposed the value of 'K' as 3.50% and the WPI has been considered as 1.06%. The R&M expenses projected by APDCL are shown in the Table below:

Table 81: R&M Expenses for FY 2018-19 as submitted by APDCL (Rs. Crore)

Particulars	MYT Order	APDCL
Average GFA of previous year	3,545.82	3545.82
K factor	3.50%	3.50%
WPI inflation	1.83%	1.06%
R&M Expenses	**126.37**	**125.42**

APDCL has projected the R&M expenses at Rs.125.42 Crore for FY 2018-19.

6.6.4 Administrative and General (A&G) Expenses

APDCL has proposed A&G expenditure based on Regulation 38 of the MYT Regulations, 2015. APDCL has considered WPI as 1.06%, and a Provision of Rs. 3 crore. The A&G expenses projected by APDCL are shown in the Table below:

Table 82: A&G Expenses for FY 2018-19 as submitted by APDCL (Rs. Crore)

Particulars	MYT Order	APDCL
A&G Expenses for previous year	38.82	59.96
WPI inflation	1.83%	1.06%
Provision	3.00	3.00
Admissible A&G	**42.53**	**63.59**

APDCL has projected the A&G expenses at Rs.63.59 Crore for FY 2018-19.

APDCL mentioned that It has submitted a separate Petition for projected expense of Rs. 6.42 Crore for FY 2017-18, incurred by APDCL to encourage digital payments through offering discounts/ cash back on digital payments, printing dynamic QR codes on bills, creation of digital payment infrastructure through BHIM/Aadhar, etc., for compliance of Government of India directive to target 1.36 crore digital transactions for FY 2017-18. APDCL has not considered this amount, pending disposal of its Petition.

Commission's Analysis

6.6.5 The Commission has computed the O&M Expenses for FY 2018-19 on normative basis as per Regulation 38 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 losses on account of controllable items as per Regulation 13 of the MYT Regulations, 2015 at the time of truing up for FY 2018-19.

6.6.6 For computation of employee expenses for FY 2018-19, the Commission has adopted the following approach:

a) The employee expenses approved after APR for FY 2017-18 have been considered as base expenses for FY 2018-19.
b) CPI inflation has been computed as average increase of CPI index for the period from FY 2014-15 to FY 2016-17, which works out to 5.35%.
c) Considering the growth in the number of employees in FY 2017-18, growth factor of 3% has been considered.

6.6.7 As regards Revision of Pay (ROP), the Commission has considered that the implementation of Seventh Pay Commission has been started in APDCL. Hence, the Commission has provisionally considered Rs. 115.52 Crore towards ROP in FY 2018-19, as submitted by APDCL.

6.6.8 The normative employee expenses approved for FY 2018-19 are shown in the following Table:

Table 83: Approved Employee Expenses for FY 2018-19 (Rs. Crore)

Particulars		**FY 2018-19**
Employee Expenses for Previous Year	EMP_{n-1}	694.69
Growth Factor	G_n	3%
CPI Inflation	CPI	5.35%
Employee Expenses on Normative basis		**753.81**
Impact of RoP		**115.52**
Total Employee expenses		**869.33**

6.6.9 The Commission directs APDCL to submit the actual impact on account of ROP, along with detailed justification and documentary evidences on basis of Audited Accounts for FY 2018-19 at time of Truing up.

Therefore, the Commission approves Employee Expenses of Rs. 869.33 crore for FY 2018-19, inclusive of impact of ROP, subject to prudence check at the time of Truing up.

6.6.10 For computation of R&M Expenses for FY 2018-19, the Commission has considered the following approach:

a) As stated in Chapter 5 of this Order, WPI inflation has been considered as 0.94%, based on the average increase of WPI for the period from FY 2013-14 to FY 2015-16.

b) K-factor has been considered as 3.50% as approved in MYT Order. Since, K-factor has been computed on the basis of average GFA, for working out R&M expenses for FY 2018-19, average GFA for previous year has been considered.

c) Since, K-factor has been considered on the basis of average GFA, for projection of R&M expenses for FY 2018-19, average GFA for previous years has been considered.

6.6.11 The normative R&M expenses approved for FY 2018-19 are shown in the following Table:

Table 84: Approved R&M Expenses for FY 2018-19 (Rs. Crore)

Particulars		FY 2018-19
Average GFA for previous year	GFA_{n-1}	4,144.04
K Factor	K	3.50%
WPI Inflation	WPI	0.94%
R&M Expenses		**146.40**

Therefore, the Commission approves R&M Expenses of Rs. 146.40 crore for FY 2018-19.

6.6.12 For computation of A&G expenses for FY 2018-19, the Commission has adopted the following approach:

a) The A&G expenses approved after APR for FY 2017-18 have been considered as base expenses for FY 2018-19.

b) WPI inflation has been considered as 0.94%, based on the average increase of WPI for the period from FY 2013-14 to FY 2015-16.

c) For FY 2018-19, the Commission has considered total provision of Rs. 3 Crore comprising Rs. 1 crore for Consumer Awareness, Rs. 1 crore for Training of employees, and Rs. 1 crore for preparing the Detailed Project Report (DPR) for taking up projects to improve the safety of operations.

6.6.13 The normative A&G expenses approved for FY 2018-19 are shown in the following Table:

Table 85: Approved A&G Expenses for FY 2018-19 (Rs. Crore)

Particulars		FY 2018-19
A&G Expenses for Previous Year	$A\&G_{n-1}$	35.19
WPI Inflation	WPI	0.94%
Provision	Provision	3.00
A&G Expenses		**38.52**

6.6.14 As additional provision has been made for these special initiatives, APDCL shall maintain details of activities undertaken under such initiatives as well as maintain the expenses separately, and submit the same to the Commission at the time of true-up.

Therefore, the Commission approves A&G Expenses of Rs. 38.52 crore for FY 2018-19.

6.7 Capital Investment & Financing of Capital Investment

6.7.1 APDCL submitted that it has considered the Capital Investment Plan (CIP) as approved by the Commission in the Business Plan Order dated September 1, 2016 and based on the latest progress of the various Schemes. APDCL submitted that for projecting the GFA, it has assumed that 70% of the capital investment undertaken in the year shall be capitalized in the same year and 30% shall be capitalized in the next year.

6.7.2 APDCL submitted that it is not making any fresh claims against Capital expenditure in the instant Petition.

Commission's Analysis

6.7.3 In response to the Commission's query, APDCL submitted the revised scheme-wise capitalisation for FY 2018-19, as shown in the Table below:

Table 86: Projected Capex in FY 2018-19 as submitted by APDCL (Rs. Crore)

<table>
<tr><th>Particulars</th><th>Business Plan Order</th><th>Revised Capex</th></tr>
<tr><td>APSEIP-T-4 Loan No. 3200-IND</td><td>35.95</td><td>35.95</td></tr>
<tr><td>APSEIP-T-2 Loan No. 3327-IND</td><td>138.00</td><td>138.00</td></tr>
<tr><td>NERPSIP-(DMS)</td><td>78.20</td><td>78.20</td></tr>
<tr><td>State Annual Plan</td><td>275.00</td><td>202.37</td></tr>
<tr><td>Refurbishment of 33/11 kV Substations</td><td>40.00</td><td>40.00</td></tr>
<tr><td>New & Renewable Energy Projects</td><td>15.00</td><td></td></tr>
<tr><td>Network Renovation & Modernisation & Augmentation</td><td>150.00</td><td></td></tr>
<tr><td>NEC Plan</td><td>25.00</td><td>25.00</td></tr>
<tr><td>RGGVY 12th Plan</td><td>162.00</td><td rowspan="2">505.48</td></tr>
<tr><td>DDUGJY</td><td>1042.00</td></tr>
<tr><td>Saubhagya (40% of total project cost of Rs. 1084 crore)</td><td></td><td>433.86</td></tr>
<tr><td>Total Capitalisation</td><td>1961.15</td><td>1433.86</td></tr>
</table>

6.7.4 Based on the Opening Capital Work in Progress and above capitalisation, APDCL has proposed the capital expenditure and capitalisation for FY 2018-19 as shown in the Table below:

Table 87: Projected Capitalisation for FY 2018-19 as submitted by APDCL (Rs. Crore)

Sl.	Particulars	MYT Order	APDCL
1	Opening CWIP	4162.96	2460.42
2	Capital Expenditure	1000.00	1433.86
3	Capitalisation	650.00	756.21
4	Closing CWIP	4512.96	3138.07

6.7.5 APDCL has considered funding of capitalisation in the ratio of 90:10 from Grants and Loans.

6.7.6 The Commission has considered the capital expenditure of Rs. 1433.86 Crore and capitalisation of Rs. 756.21 crore as submitted by APDCL. Accordingly, the Capital Expenditure and Capitalisation approved by the Commission for FY 2018-19 is shown in the following Table:

Table 88: Capital Expenditure and capitalisation approved by the Commission (Rs. Crore)

Particulars	MYT Order	APDCL Petition	Approved in APR
Opening CWIP	4162.96	2460.42	4205.28
Capital Expenditure	1000.00	1433.86	1433.86
Capitalisation	**650.00**	**756.21**	**756.21**
Closing CWIP	4512.96	3138.07	4882.93

6.7.7 As regards the funding of capitalisation, the Commission has not considered any equity funding based on APDCL's submission. The grant and debt funding has been considered in the same overall ratio as proposed by APDCL in its Petition, corresponding to the capitalisation considered for tariff purposes in this Order.

6.7.8 The funding of capitalised works, as approved by the Commission is shown in the following Table:

Table 89: Funding of Capitalised Works approved by the Commission (Rs. Crore)

Particulars	MYT Order	Approved
Grant	593.36	716.77
Equity	-	-
Debt	56.64	39.44
Total Capitalisation	**650.00**	**756.21**

6.7.9 **Therefore, the Commission provisionally approves Capitalisation of Rs. 756.21 crore for FY 2018-19.**

6.8 Depreciation

6.8.1 APDCL submitted that Depreciation has been claimed in accordance with the MYT Regulations, 2015, after apportionment of depreciation for assets created out of consumer contribution. APDCL added that the assets which have been depreciated to the extent of 90% of original cost are excluded from the asset base for the purpose of calculating depreciation.

6.8.2 APDCL submitted that its claim for depreciation is based on no funding from grant considered for Fixed Assets vis-à-vis CWIP transferred to APDCL consequent to unbundling of erstwhile ASEB as on 1st April, 2005. Total depreciation on the opening balance of GFA as on Transfer Scheme dated 1st April, 2005 has been claimed in totality. Depreciation on subsequent assets is claimed after apportionment of available grant. As no depreciation has been charged on assets created out of RGGVY, MNRE as well as consumer contribution, grant received against such schemes are shown separately with no claim of depreciation.

6.8.3 The depreciation projected by APDCL for FY 2018-19 is shown in the Table below:

Table 90: Depreciation calculation for FY 2018-19 as submitted by APDCL (Rs. Crore)

				Depreciation				
Particulars	**As on 01.04.17**	**Addition during the year**	**Rate of Dep**	**Accumulated as on 01.04.17**	**Assets fully depreciated**	**On OB**	**On Addition**	**Total**
Land & Rights					-	-	-	-
i) Land owned under full title	22.03	6.42						
ii) Leasehold land	2.22		3.34%	0.15		0.07	-	0.07
Sub total:	**24.25**	**6.42**		**0.15**		**0.07**	**-**	**0.07**
Building	74.19	20.33	3.34%	24.42	-	2.48	0.34	2.82
Hydraulic	-			-		-	-	-
Other Civil Works	73.79	19.40	3.34%	27.04	-	2.46	0.32	2.79
Plant & Machinery	812.38	222.74	5.28%	378.29	214.60	31.56	5.88	37.44
Lines & Cable Network	1,555.75	361.17	5.28%	662.46	388.81	61.61	9.53	71.15
Vehicles	16.45	4.51	5.28%	10.70	11.23	0.28	0.12	0.39
Furniture & Fixtures	21.60	5.77	6.33%	11.13	9.20	0.78	0.18	0.97
Office Equipment	35.96	9.66	6.33%	20.31	16.80	1.21	0.31	1.52
SUB TOTAL	**2,614.37**	**650.00**	**4.48%**	**1,134.51**	**640.64**	**100.47**	**16.69**	**117.15**
Add: Consumers contribution deducted from service connection under O.H.lines & cable network	223.44		5.28%	103.48		11.80	-	11.80
Add: Assets not belonging to the entity	3,001.44	106.21						
Total	**5,839.25**	**756.21**		**1,237.99**	**640.64**	**112.26**	**16.69**	**128.95**

Table 91: Depreciation claimed by APDCL for FY 2018-19 (Rs. Crore)

Particulars	State Govt. grant			Grant for assets not belonging to entity (RGGVY, MNRE etc.)	Consumer Contribution	Total
	As on 01.04.2005	As on 01.04.2018	Sub total	As on 01.04.2018		
Grants Available	-	2,812.41	2,812.41	3,210.74	223.44	6,246.59
GFA	1,095.63	1,518.74	2,614.37	3,001.44	223.44	5,839.25
CWIP		2,460.42	2,460.42			2,460.42
Total	**1,095.63**	**3,979.16**	**5,074.79**	**3,001.44**	**223.44**	**8,299.67**
Cumulative grants apportioned in the ratio of GFA and CWIP						
GFA	-	1,073.42	1,073.42	3,210.74	223.44	4,507.60
CWIP	-	1,738.99	1,738.99	-	-	1,738.99
Total	**-**	**2,812.41**	**2,812.41**	**3,210.74**	**223.44**	**6,246.59**
Depreciation calculated as per the Regulation on the GFA	49.10	68.06	117.15	-	-	117.15
Weighted Average Rate of Depreciation (%)	4.48%	4.48%	4.48%	-	-	
Depreciation to be deducted on the assets built on the grants component	-	48.10	48.10	-	-	
Depreciation claimed	**49.10**	**19.96**	**69.05**	**-**	**-**	**69.05**

Commission's Analysis

6.8.4 For computation of depreciation, the Commission has considered the closing GFA for FY 2017-18 as approved in this Order as the Opening GFA for FY 2018-19. The capitalisation approved for FY 2018-19 has been considered as asset addition during the year. The Commission has considered the scheduled depreciation rates as specified in MYT Regulations, 2015.

6.8.5 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. The Commission has not considered depreciation on assets funded through grants in accordance with Regulation 31 and 33 of MYT Regulations, 2015.

6.8.6 In view of the above, the Commission has approved depreciation for the FY 2018-19 as per MYT Regulations, 2015, as given in the Tables below:

Table 92: Depreciation approved for FY 2018-19 (Rs. Crore)

Sl.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2015
1	Land & Rights	17.83			
2	Building	82.67	20.92	3.34%	2.46
3	Plant & Machinery	905.08	229.07	5.28%	31.19
4	Vehicle	18.33	4.64	9.50%	0.44
5	Furniture & Fixtures	24.31	6.15	6.33%	0.78
6	Office Equipment	40.37	10.22	6.33%	2.38
7	Other Civil Work	83.47	21.13	3.34%	2.44
8	Lines & Cable Network	1,833.65	464.08	5.28%	60.12
9	**Total**	**3005.72**	**756.21**		**99.82**
10	**Asset excluding land**	**2987.89**	**756.21**		
11	Less: Depreciation for Grants/Consumer Contribution				73.16
12	**Net Depreciation Allowed**				**26.66**

Therefore, the Commission approves Depreciation of Rs. 26.66 crore for FY 2018-19.

6.9 Interest and Finance Charges

6.9.1 APDCL submitted that in line with MYT Orders, APDCL is keeping in abeyance the claim on interest charges on GPF and NPS to provide tariff relief to that extent. APDCL requested the Commission to allow recovery of actual cost incurred on interest on GPF as well as NPS at an opportune time so as to safeguard its financial viability.

6.9.2 Accordingly, APDCL submitted interest and finance charges for FY 2018-19 as shown in the Table below:

Table 93: Interest and Finance Charges as submitted by APDCL for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	FY 2018-19	
		Approved	APDCL's Claim
1	Interest on State Govt. Loan	16.82	59.14
2	Bank Charges		4.25
3	Interest on GPF		
4	Interest on New Pension Fund		
5	Interest on R-APDRP Loan		47.20
6	Others		0.11
7	**Less:** Interest Capitalised		26.33
8	**Other borrowing cost**		
9	**Total**	**16.82**	**84.37**
Normative IWC claimed in this petition			20.47
Actual interest on WC			7.33
Difference			13.13
Net claim for Interest & Finance charges in this Petition			**71.23**

Commission's Analysis

6.9.3 Interest on loan for FY 2018-19 is required to be allowed on normative basis as per Regulation 35 of MYT Regulations, 2015. Accordingly, the normative closing loan for FY 2017-18 of Rs. 150.39 crore is considered as the normative loan outstanding as on April 1, 2018.

6.9.4 The Commission has considered the normative addition of loan during FY 2018-19 as Rs. 39.44 crore taken for funding the capitalization during FY 2018-19. Further, the loan repayment has been considered equivalent to depreciation approved for the respective year in this Order. As only new loans are outstanding, the Commission has considered the Interest rate of 9.40% as proposed by APDCL in accordance with the UDAY MoU.

6.9.5 The interest on loan capital as approved by the Commission for FY 2018-19 is shown in the following Table:

Table 94: Approved Interest on Loan Capital for FY 2018-19 (Rs. Crore)

Particulars	FY 2018-19
Net Normative Opening Loan	150.39
Addition of normative loan during the year	39.44
Normative Repayment during the year	26.66
Net Normative Closing Loan	163.18
Interest Rate	9.40%
Interest Expenses	**14.74**
Add: Bank Charges & Others	**4.36**
Total Interest & Financing Charges	**19.10**

Therefore, the Commission approves Interest on Loans of Rs. 19.10 crore for FY 2018-19.

6.10 Interest on Working Capital

6.10.1 APDCL submitted that it has projected IoWC as per Regulation 37, Regulation 81.5 and Regulation 94.8 of the MYT Regulations 2015. APDCL submitted that it plans to take a working capital loan to ensure that the liabilities on account of power purchase are discharged immediately and are not accumulated like the previous years.

6.10.2 The normative IoWC projected by APDCL for FY 2018-19 is shown in the Table below:

Table 95: IoWC for FY 2018-19 as Projected by APDCL (Rs. Crore)

Particulars	MYT Order	APDCL
One month of the amount of O&M expenses	81.08	68.49
Two months' equivalent of the expected revenue from sale of electricity	956.38	981.85
Maintenance spares @15% of O&M expenses	145.94	123.29
Less: One-month Power Purchase Cost	414.41	359.00
Less: Amount held as CSD	608.22	542.04
Total Working Capital Requirement	160.76	272.60
Rate of Interest	12.80%	12.80%
Interest on Working Capital	**20.58**	**34.89**

Commission's Analysis

6.10.3 The Commission has computed IoWC in accordance with Regulations 37.3 and 37.4 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 2017 plus 350 basis points i.e., 12.60%, same as interest rate for FY 2017-18 approved in this Order.

6.10.4 The IoWC approved by the Commission for FY 2018-19 is shown in the following Table:

Table 96: IoWC approved by the Commission for the FY 2018-19 (Rs. Crore)

Particulars	MYT Order	APDCL	Approved
O&M Expenses-One month	81.08	68.49	87.85
2-month Receivables	956.38	981.85	953.44
Maintenance spares @ 15% of O&M expenses	145.94	123.29	158.14
Less: One-month Power Purchase Cost	414.41	359	366.27
Less: consumer security deposit	608.22	542.04	647.96
Total working Capital	160.76	272.59	185.19
Rate of Interest on WC	12.80%	12.80%	12.60%
Interest on WC	**20.58**	**34.89**	**23.33**

Therefore, the Commission approves IoWC of Rs. 23.33 crore for FY 2018-19.

6.11 Interest on Consumers' Security Deposit

6.11.1 APDCL has claimed the Interest on CSD of Rs. 15.95 Crore, as against Rs. 40 Crore approved in MYT Order.

Commission's Analysis

6.11.2 The Commission has approved the interest on CSD at the same level as approved for FY 2017-18, i.e., Rs. 15.37 crore, for FY 2018-19, which shall be trued up based on actuals.

6.12 Provision for Bad and Doubtful Debts

6.12.1 APDCL submitted that it has projected the Provision for Bad and Doubtful Debts of Rs. 14.42 Crore.

Commission's Analysis

6.12.2 Regulation 94.9 (and similarly Regulation 81.7) of the MYT Regulations, 2015 specify as under:

"94.9.1 The Commission may allow a provision for bad and doubtful debts upto 1% of the amount shown as receivables in the audited accounts of the Distribution Licensee, duly allocated for the Supply Business:

Provided that where the amount of such provisioning for bad and doubtful debts exceeds five (5) per cent of the amount shown as receivables in the audited accounts of the Distribution Licensee duly allocated for the Wheeling Business, no such appropriation shall be allowed which would have the effect of increasing the provisioning beyond the said maximum."

6.12.3 The trade receivables appearing in the audited accounts for FY 2016-17 are Rs. 1442.39 crore. Accordingly, the Commission provisionally allows the Provision for Bad and Doubtful Debts at 1% of Rs. 1442.39 crore, i.e., Rs. 14.42 crore, in the ARR for FY 2018-19.

6.13 Return on Equity

6.13.1 APDCL submitted that it has considered that the existing loans from GoA to the extent of Rs.283.13 Crore shall be converted to equity in the last quarter of FY 2016-17 under the UDAY MOU and the rate of return has been considered as 16% as specified in the MYT Regulations, 2015. APDCL has not considered any other equity addition during FY 2018-19.

6.13.2 The RoE projected by APDCL for FY 2018-19 is shown in the Table below:

Table 97: Return on Equity projected by APDCL for FY 2018-19 (Rs. Crore)

Sl.	Particulars	FY 2018-19 (With conversion of loan under UDAY)
1	GFA as on 1st April 2018	2570.82
2	Normative Equity [30% of 1]	771.25
3	a. Actual Equity	162.77
	b. Equity amount transferred consequent to transfer of	

Sl.	Particulars	FY 2018-19 (With conversion of loan under UDAY)
	trading function from ASEB pending allotment	
	c. Conversion of Govt. grant	
	d. Conversion of Govt. Loan	283.13
	Subtotal (3):	445.90
4	Admissible equity for tariff [Minimum of 2 or 3]	445.90
5	**Return on equity @16% on (4)**	**71.34**

Commission's Analysis

6.13.3 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 as Nil during for FY 2018-19, based on the funding of capitalisation approved in this Order. Further, as the entire net normative loan outstanding has been converted to grants, the Commission has not considered any conversion of loan to equity in FY 2018-19. Therefore, the approved Return on Equity for FY 2018-19 at 16% is shown in the Table below:

Table 98: Return on Equity approved by the Commission for FY 2018-19 (Rs. Crore)

Sr. No.	Particulars	Approved
1	Opening Equity Capital	162.77
2	Equity addition during the year	-
3	Closing Equity	162.77
5	Rate of Return on equity	16.00%
6	**Return on Equity**	**26.04**

Therefore, the Commission approves RoE of Rs. 26.04 crore for FY 2018-19.

6.14 Non-Tariff Income

6.14.1 APDCL submitted that it has projected Non-Tariff Income considering escalation of 5% p.a. over the actual Non-Tariff Income for FY 2017-18, as shown in the Table below:

Table 99: Non-Tariff Income as submitted by APDCL for FY 2018-19 (Rs. Crore)

Sl.	Particulars	MYT Order	APDCL
1	Rentals from Meters, Service Lines, Capacitors etc.	174.59	23.14
2	Income from recoveries on account of theft of energy/ Malpractices		0.31
3	Delayed payment charges from Consumers		155.20

Sl.	Particulars	MYT Order	APDCL
4	Misc. recoveries		26.14
5	Income on seasonal Export of surplus power		0.00
6	Cross Subsidy surcharge on Open Access Consumer		10.46
7	Wheeling charges collected		3.06
	Total	**174.59**	**218.32**

Commission's Analysis

6.14.2 The Commission has considered annual increase of 5% over the Non-Tariff Income considered for FY 2017-18, as submitted by APDCL. The Non-Tariff Income approved by the Commission for FY 2018-19, is shown in the Table below:

Table 100: Non-Tariff Income approved by the Commission for FY 2018-19 (Rs. Crore)

Sl.	Particulars	MYT Order	APDCL	Approved
1	Rentals from Meters, Service Lines, Capacitors, etc.	174.59	23.14	23.14
2	Income from recoveries on account of theft of energy/Malpractices		0.31	0.31
3	Delayed Payment Charges from Consumers		155.20	155.20
4	Miscellaneous Recoveries		26.14	26.14
5	Income on seasonal Export of surplus power		0.00	0.00
6	Cross Subsidy Surcharge on Open Access Consumer		10.46	10.46
7	Wheeling Charges		3.06	3.06
	Total	**174.59**	**218.32**	**218.32**

Therefore, the Commission approves Non-Tariff Income of Rs. 218.32 crore for FY 2018-19.

6.15 Other Income

6.15.1 APDCL submitted that it has projected Other Income considering escalation of 5% p.a. over the Other Income for FY 2017-18. APDCL has projected Income from Miscellaneous Charges of Rs.135.62 Crore for FY 2018-19.

Commission's Analysis

6.15.2 The Commission has considered annual increase of 5% over the Other Income for FY

2017-18 approved in this Order, for all heads of Other Income, except Income on Sale of Surplus Power. The Commission has not considered any surplus energy in FY 2018-19, as the energy requirement has been allowed only to the extent of meeting the projected sales within the State. The Other Income approved by the Commission for FY 2018-19, is shown in the Table below:

Table 101: Miscellaneous Income approved by the Commission for the FY 2018-19 (Rs. Crore)

Particulars	MYT Order	APDCL	Approved
Other Income	**181.61**	**135.62**	**159.63**

Therefore, the Commission approves Other Income of Rs. 159.63 crore for FY 2018-19.

6.16 Revenue from sale of electricity at existing Tariff

6.16.1 APDCL has projected the Revenue from sale of electricity at existing tariff based on the approved tariff and the category-wise sales projected by APDCL for FY 2018-19. APDCL has projected the revenue from sale of electricity, excluding the Targeted Subsidy as Rs. 5511.33 crore.

Commission's Analysis

6.16.2 The Commission has estimated the Revenue from sale of electricity at existing tariff based on the approved tariff and the projected category-wise sales for FY 2018-19. The Commission has considered the full-cost tariff, without considering any Targeted Subsidy, for the purposes of estimating the revenue from sale of electricity at existing tariff. No FPPPA has been considered as part of the existing tariff, as the FPPPA is zero at present.

6.16.3 The Revenue from Sale of Electricity from existing tariff as submitted by APDCL and as computed by the Commission for FY 2018-19 is given in the Table below:

Table 102: Revenue from Sale of Electricity for FY 2018-19 (Rs. Crore)

Particulars	APDCL Petition	Approved
Revenue from Sale of Electricity	5511.33	5830.18

6.17 Targeted Subsidy from GoA

6.17.1 APDCL has estimated the revenue from Targeted Subsidy as Rs. 379.79 crore for FY 2018-19, which has been considered for meeting the revenue requirement.

Commission's Analysis

6.17.2 As stated above, the Commission has considered the full-cost tariff, without considering any Targeted Subsidy, for the purposes of estimating the revenue from sale of electricity at existing tariff. Hence, the Commission has considered the revenue from Targeted Subsidy as NIL for FY 2018-19.

6.18 Operational Funding Requirement (OFR) Support

6.18.1 APDCL submitted that as per the guidelines of UDAY Scheme, the GoA is committed for payment of Rs. 353.51 Crore as OFR. Accordingly, APDCL has considered the OFR support from GoA as Rs. 353.51 crore.

Commission's Analysis

6.18.2 As elaborated in Chapter 4 and Chapter 5 of this Order, the OFR amount provided by GoA is for liquidating of Outstanding Power Purchase liabilities and is not intended to meet the Revenue Gap or targeted subsidy requirement. For various reasons, APDCL has been unable to meet its obligations to pay the power purchase liabilities, and the GoA, as the owner of APDCL, has provided OFR cash support under the terms of the UDAY MOU. Under these circumstances, the amount of OFR support provided by GoA cannot be considered as Income.

Hence, the Commission has not considered any Operational Funding Support from GoA in the ARR for FY 2018-19.

6.19 Aggregate Revenue Requirement (ARR) and Revenue Gap/(Surplus)

6.19.1 Considering the above heads of expense and revenue provisionally approved in the APR for FY 2018-19, the summary of ARR as submitted by APDCL and as approved by the Commission for FY 2018-19 is given in the Table below:

Table 103: ARR & Revenue Gap/(Surplus) approved by the Commission for FY 2018-19 (Rs. Crore)

Sl.	Particulars	MYT Order	APDCL Petition	Approved
1	Power Purchase Expenses	4972.94	4881.47	4395.29
2	O&M Expenses	972.90	1148.70	1054.26
a)	*Employee Expenses*	*804.00*	*959.69*	*869.33*
b)	*R&M Expenses*	*126.37*	*125.42*	*146.40*
c)	*A&G Expenses*	*42.53*	*63.59*	*38.52*
3	Depreciation	32.76	69.05	26.66
4	Interest and Finance Charges	16.82	71.23	19.10
5	Interest on Working Capital	20.58	34.89	23.33
6	Interest on CSD	40.00	15.95	15.37
7	Return on Equity	26.04	71.34	26.04
8	Other Debits, incl. Provisioning for Bad Debts	12.42	14.42	14.42
9	**Total Expenditure**	**6094.46**	**6307.05**	**5574.47**
10	Less: Non-Tariff Income	174.59	218.31	218.32
11	Less: Other Income	181.61	135.62	159.63
12	**Aggregate Revenue Requirement**	**5738.26**	**5953.12**	**5196.52**
	Revenue			
13	Revenue at Approved Tariff	6119.94	5511.33	5830.18
14	State Government Targeted Subsidy	0.00	379.79	
15	State Government - Operational Fund Requirement		353.51	
16	**Total Revenue**	**6119.94**	**6244.63**	**5830.18**
17	**Revenue Gap/(Surplus)**	**(381.68)**	**(291.51)**	**(633.66)**

6.19.2 **The approved ARR and Revenue from existing Tariff reveals a stand-alone Revenue Surplus of Rs. 633.66 crore for FY 2018-19. The treatment of this Revenue Surplus for FY 2018-19 has been discussed in Chapter 7 of this Order.**

7 Cumulative Revenue Gap till FY 2018-19 & Tariff for FY 2018-19

7.1 Cumulative Revenue Gap

7.1.1 APDCL submitted the proposed cost recovery based on the True-up for FY 2016-17, APR for FY 2017-18 and revised ARR for FY 2018-19, as shown in the Table below:

Table 104: Cumulative ARR for FY 2018-19 as proposed by APDCL (Rs. Crore)

Sr. No.	Particulars	Amount
1	Proposed ARR for FY 2018-19 without Targeted Subsidy	5844.90
2	Revenue Gap/(Surplus) for FY 2016-17	444.29
3	Revenue Gap/(Surplus) for FY 2017-18	403.04
4	Revenue Gap/(Surplus) for FY 2018-19	(18.05)
5	Less: OFR Support for FY 2018-19	353.51
	Total	**6320.68**

Commission's Analysis

7.1.2 In Chapter 4 of this Order, the Commission has approved the Revenue Gap/(Surplus) for FY 2016-17 after true-up. In Chapter 5, the Commission has computed the Revenue Gap/(Surplus) for FY 2017-18, however, such Revenue Gap/(Surplus) after APR of FY 2017-18 is not being passed through in the Tariff of FY 2018-19. In Chapter 6, the Commission has computed the Revenue Gap/(Surplus) for FY 2018-19 based on the approved ARR and revenue from existing tariff. The Cumulative Revenue Gap/(Surplus) approved by the Commission for FY 2018-19 is given in the Table below:

Table 105: Cumulative Revenue Gap/(Surplus) till FY 2018-19 approved by the Commission (Rs. Crore)

Particulars	Formula	Rate of Interest (%)	Amount
Revenue Gap/(Surplus) of FY 2016-17 adjusted in FY 2017-18 *	(A)		(686.74)
Carrying/(Holding) cost for FY 2016-17 (half Year)	(B) = (A/2 x 12.80%)	12.80%	(43.95)
Carrying/(Holding) cost for FY 2017-18 (half Year)	(C) = (A/2 x 12.60%)	12.60%	(43.26)
Total Carrying Cost	**(D) = (B+C)**		**(87.22)**
Actual Revenue Gap/(Surplus) of FY 2016-17 after true-up	(E)		(198.86)
Differential Revenue Gap/(Surplus) of FY 2016-17	(F) = -(A-E)		487.88
Carrying/(Holding) cost for FY 2016-17 (half Year)	(G) = (F/2 x 12.80%)	12.80%	31.22
Carrying/(Holding) cost for FY 2017-18 (Full Year)	(H) = (F x 12.60%)	12.60%	61.47
Carrying/(Holding) cost for FY 2018-19 (half year)	(I) = (F/2 x 12.60%)	12.60%	30.74
Total Carrying/(Holding) Cost	**(J) = (G + H +I)**		**123. 43**
Differential Revenue Gap/(Surplus) of FY 2016-17 to be recovered in FY 2018-19	**(K) = (F)**		**487.88**
Net Carrying Cost to be considered in ARR of FY 2018-19	(L) = (D + J)		36.22
Stand-alone Revenue Requirement for FY 2018-19$	(M)		5196.52
Cumulative Revenue Requirement for FY 2018-19	**(N) = (F + L + M)**		**5,720.62**
Revenue from Existing Tariff in FY 2018-19	(O)		5830.18
Cumulative Revenue Gap/(Surplus) for FY 2018-19	**(P) = (N – O)**		**(109.56)**

Note: * estimated in MYT Order dated March 31, 2017

$ - refer Table 103

7.1.3 Thus, the Cumulative Revenue Surplus after truing up for FY 2016-17 along with associated carrying cost, and considering the stand-alone Revenue Requirement for FY 2018-19, works out to Rs. 109.56 crore, which translates to an average tariff reduction of 1.9% or 14 paise/kWh for all categories, as ompared to existing effective ABR (i.e., Rs. 7.49/kWh based on projected sales and load of FY 2018-19 at the existing tariff).

7.1.4 Accordingly, the Commission has rationalised the category-wise tariffs in order to pass on the benefit of the Revenue Surplus of Rs. 109.56 crore to the consumers as well as further reduce the cross-subsidy between consumer categories, as elaborated in subsequent sections of this Order.

7.2 Tariff for FY 2018-19

7.2.1 APDCL has proposed increase in fixed/demand charges ranging from Rs. 10 to Rs. 15 per kW for LT categories and ranging from Rs. 15 to Rs. 50 per kVA per month for HT categories. APDCL proposed increase in energy charges ranging from 20 to 40 paise/kWh for LT categories and from 30 to 75 paise/kWh for HT categories, with corresponding changes in the Time of Day (ToD) tariff.

Commission's Analysis

7.2.2 In determining the retail supply tariff of APDCL for FY 2018-19, the Commission has been guided by the provisions of the EA 2003, National Electricity Policy (NEP), Tariff Policy, and the MYT Regulations, 2015.

7.2.3 Section 61 of the EA 2003 lays down the broad principles and guidelines for determination of retail supply tariffs. The basic principle is to ensure that tariff should progressively reflect the cost of supply of electricity and gradually reduce the cross-subsidies between categories. The EA 2003 lays down special emphasis on safeguarding of consumers' interest and also requires that the costs should be recovered in a reasonable manner. The EA 2003 mandates that tariff determination should be guided by factors which "encourage competition, efficiency, economical uses of resources, good performance and optimum investment".

7.2.4 The EA 2003 provides that while determining the tariff, the Commission shall not show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required. The Tariff Policy notified by the Government of India provides comprehensive guidelines for determination of tariff and determination of ARR of power utilities. The Commission has followed these Guidelines, as far as possible.

7.2.5 The Commission has carried forward the process of tariff rationalization in this Order to ensure that the tariffs of most categories are within ±20% of the ACoS, while at the same time ensuring that no category is faced with a tariff shock. For categories, where the tariffs are beyond ±20% of the ACoS, the Commission has attempted to reduce the cross-subsidies.

7.3 Cost of Supply

7.3.1 APDCL submitted that considering the projected sale of 8080 MU during FY 2018-19, the ACoS works out to Rs. 7.82 per kWh.

Commission's Analysis

7.3.2 Considering the Net ARR and the total sales approved by the Commission for FY 2018-19, the ACOS approved by the Commission for FY 2018-19 works out to Rs. 7.35 per kWh, as shown in the Table below:

Table 106: ACOS approved by the Commission for FY 2018-19

Particulars	Units	Amount
Cumulative Revenue Requirement for FY 2018-19	Rs. Crore	5,720.62
Sales	MU	7783.75
Average Cost of Supply	Rs/kWh	7.35

7.3.3 The Commission's analysis of the contributors to the ACoS is shown in the Table below:

Table 107: Contributors of ACOS for FY 2018-19

Particulars	Total ARR (Rs. Crore)	Contributors to ACOS	
		Rs/kWh	%
Power Purchase Expenses	4395.29	5.65	76.8%
Employee Expenses	869.33	1.12	15.2%
R&M Expenses	146.40	0.19	2.6%
A&G Expenses	38.52	0.05	0.7%
Depreciation	26.66	0.03	0.5%
Interest and Finance Charges	19.10	0.02	0.3%
Interest on Working Capital	23.33	0.03	0.4%
Interest on CSD	15.37	0.02	0.3%
Return on Equity	26.04	0.03	0.5%
Income Tax	0.00	0.00	0.0%
Provisioning for Bad & Doubtful Debts	14.42	0.02	0.3%
Less: Non Tariff Income	218.32	(0.28)	-3.8%
Less: Other Income	159.63	(0.21)	-2.8%
Total ARR	**5196.52**	6.68	90.8%
Past Revenue Gaps, with Carrying Cost	524.09	0.67	9.2%
Net Revenue Requirement for FY 2018-19	5,720.62	7.35	100.0%

7.3.4 As regards determination of the voltage-wise cost of supply (VCoS), the Commission requires a number of inputs from APDCL based on the data developed on sustainable basis.

7.3.5 The Commission has considered the voltage-wise losses in line with the approach adopted in the MYT Order, by considering the energy input at each voltage level and ensuring that the overall loss level is same as that approved for APDCL for FY 2018-19, i.e., 16.85%. Thus, **the voltage-wise losses considered by the Commission in this Order are 5%, 11%, and 19.85% for 33 kV, 11 kV and LT, respectively, with the overall Distribution Loss level of 16.85%**. However, **this is still an approximation, and APDCL is directed to submit properly reconciled data on voltage-wise losses and VCoS, based on proper energy audit, and with complete explanation and supporting data, along with the Tariff Petition for FY 2019-20**.

7.3.6 Based on the assessed voltage-wise losses and the methodology prescribed by

APTEL, the Commission has provisionally computed the VCoS as shown in the Table below, for representation purposes only:

Table 108: VCoS provisionally computed by the Commission for FY 2018-19 (Rs./kWh)

Particulars	Units	33 kV	11 kV	LT	Total
Energy Sales	MU	616.92	1853.19	5313.64	7783.75
Distribution Loss	%	5.00%	11.00%	19.85%	16.85%
Energy requirement T<>D	MU	649.39	2082.23	6629.47	9361.09
Transmission Loss	%	3.44%	3.44%	3.44%	3.44%
Energy Requirement at AEGCL	MU	672.52	2156.41	6865.65	9694.59
ISTS Losses	%	1.47%	1.47%	1.47%	1.47%
Energy requirement G<>T	MU	682.55	2188.59	6968.08	9839.22
Avg. Power Purchase cost including Transmission Charges	Rs./ kWh	4.47	4.47	4.47	4.47
Power Purchase Cost	Rs. Crore	304.90	977.67	3,112.72	4,395.29
Other Costs	Rs. Crore	63.50	190.76	546.97	801.24
Net ARR	**Rs. Crore**	**368.41**	**1168.43**	**3659.69**	**5196.52**
Past Revenue Gaps	Rs. Crore	41.54	124.78	357.78	524.09
Cumulative ARR	**Rs. Crore**	**409.95**	**1293.21**	**4017.47**	**5720.62**
Cost of Supply	**Rs./ kWh**	**6.65**	**6.98**	**7.56**	**7.35**

7.3.7 Thus, based on the available data and assumptions made, the cost of supply at 33 kV works out to around Rs. 0.92/kWh lower than the LT cost of supply, while the cost of supply at 11 kV works out to around Rs. 0.58/kWh lower than the LT cost of supply.

7.3.8 In its Judgment dated 24 March, 2015 in Appeal No. 103 of 2012, the APTEL ruled as under on the issue of determination of tariff and cross-subsidy with reference to the voltage-wise cost of supply:

> *"68. This Tribunal in the various judgments from the year 2006 onwards has repeatedly stated that* ***the tariffs have to be determined considering both the overall average cost of supply of the distribution licensees and the voltage-wise cost of supply****. The principles laid down by this Tribunal are as under:-*
>
> *"i)* ***The cost of supply referred in Section 61(g) is the cost of supply to the consumer category and not overall average cost of supply****.*

ii) The cross subsidy for a consumer category is the difference between cost to serve that category of consumer and average tariff realization for that category of consumer.

iii) ***The State Commission has to determine the category wise cost of supply as well as overall average cost of supply to all the consumers of the distribution licensee****.*

iv) While the cross subsidies have to be reduced progressively and gradually in the manner specified by the Appropriate Commission so as to avoid tariff shock to the subsidized categories of consumers, it is not the intention of the legislation that cross subsidies have to be eliminated. Therefore, ***it is not necessary that the tariff should be the mirror image of actual cost of supply to the concerned category of consumer and to make the cross subsidy zero****.*

v) The subsidizing consumers should not be subjected to disproportionate increase in tariff so as to subject them to tariff shock.

vi) The State Commission should fix a limit of consumption for the subsidized consumer categories and once a consumer exceeds that limit he has to be charged at normal tariff.

vii) Tariff for consumer below the poverty line will be at least 50% of the average cost of supply. ***Tariffs for all other categories should be within ±20% of the overall average cost of supply for the distribution licensee by the end of 2010-11.***

viii) The tariffs can be differentiated according to consumer's load factor, voltage, total consumption of electricity during specified period or the time or the geographical location, the nature of supply and the purpose for which electricity is required. For example, the consumers in domestic category can be differentiated from the consumers in Industrial category or commercial category on the basis of purpose for which electricity is required.

ix) ***The Tribunal in Appeal no. 102 of 2010 and batch in Tata Steel case has also given a formulation for determination of voltage-wise cost of supply in the absence of availability of detailed data****."*

69. This Tribunal in Tata Steel Ltd. gave a method for determination of cost of supply for different consumer categories. ***It was held that in the absence of segregated network costs, it would be prudent to work out voltage-wise cost of supply taking into account the distribution losses at different voltage levels as a first major step in the right direction. As power purchase cost is a major component of tariff, apportioning the power purchase cost at different voltage levels taking into account the distribution loss at the relevant voltage level and the upstream system will facilitate determination of voltage-wise cost of supply. Thus, a practical method was suggested to reflect the consumer-wise cost of supply. However voltage-wise cost of supply would also require determination of distribution loss at different voltage levels of the distribution system****."(****emphasis added****)*

7.3.9 Thus, the Commission is required to determine the category-wise cost of supply as well as overall average cost of supply to all the consumers of APDCL. The Commission has accordingly computed the VCoS based on certain assumptions, as a starting point. This computation has to be refined further based on more accurate and reliable data.

7.3.10 In view of all the above reasons, the Commission is of the view that it would not be appropriate to determine tariffs on the basis of VCoS at this point in time, and hence, for the purpose of this Order, the Commission has continued to compute the cross-subsidy with respect to the ACoS. However, as the first step towards reflecting the lower cost of supply at higher voltages of supply, the Commission has introduced a voltage rebate of 3% and 1.5% in the Energy Charges for all consumers taking supply at 132 kV and 33 kV, respectively, on an experimental basis. Further, the Commission has attempted to ensure that the overall objective of reduction of cross-subsidies to be within the limits of +20% of the ACoS, as laid down in the Tariff Policy as well as several Judgments of APTEL.

7.3.11 Hence, the Commission has determined the category-wise tariffs in accordance with the ACOS, with one objective being that the tariffs for HT supply should be lower than the tariff for LT supply. However, this has not been possible for many categories, on account of historical tariff differences and other objectives of tariff determination, i.e., reduction of cross-subsidies, avoidance of tariff shock, etc.

7.3.12 It may be noted that for determination of the ARR and tariff of APDCL for FY 2018-19, the Commission has considered the ARR and Tariff approved for APGCL and AEGCL for FY 2018-19 in their respective Tariff Orders dated March 19, 2018.

7.4 Tariff Philosophy and Design

7.4.1 Around 61% of the ARR of APDCL (excluding past Revenue Gap/(Surplus)) comprises fixed costs. However, the existing levels of Fixed Charges are quite low, and only 12% of the ARR is recovered through Fixed/Demand Charges. Hence, as stated in the MYT Order, the Commission has marginally increased the Fixed/Demand Charges for most categories, except 2-3 categories where the Fixed/Demand Charges are already higher than that of other categories. With the revision in Fixed/Demand Charges, APDCL will be able to recover around 14% of the ARR through the Fixed/Demand Charges.

7.4.2 As there is an overall reduction in ACoS, the Commission has reduced the Energy Charges for all categories, to by and large offset the increase in Fixed/Demand Charges.

7.4.3 In accordance with the AERC (Electricity Supply Code) Regulations, 2017, the LT supply has been allowed upto 25 kW and accordingly, the category name has been modified to "25 kW and above" for HT Domestic, HT Commercial, and HT Bulk Supply categories. Similarly, the category names have been modified to LT-I (B) – Domestic B above 5 kW to below 25 kW, LT-II Commercial Load above 0.5 kW to below 25 kW, LT-III General Purpose Load upto 25 kW, and LT-VIII Agriculture upto 25 kW.

7.4.4 The rebate for Power Factor (PF) (leading or lagging) shall be as under:

a) In case, the average PF (leading or lagging) maintained by the consumer is more than 0.85 and upto 0.95, a rebate of 1% on the Energy Charges on unit consumption shall be applicable;
b) For PF (leading or lagging) of 0.95 and above upto 0.97, a rebate of 2% on the Energy Charges on unit consumption shall be applicable;
c) For PF (leading or lagging) of 0.97 and above upto Unity PF, a rebate of 3% on the Energy Charges on unit consumption shall be applicable.

7.4.5 The penalty for Power Factor (PF) (leading or lagging) shall be as under:

a) In case average PF (leading or lagging) in a month for a consumer falls below 0.85, a penalty @1% for every 1% fall in PF (leading or lagging) from 0.85 to 0.60; plus 2% for every 1% fall below 0.60 to 0.30 upto and including 0.30 shall be levied on total unit consumption. PF penalty shall be levied on those consumers where PF is recorded electronically.

7.4.6 The Commission has increased the night off-peak rebate from Rs. 0.50 per kWh to Rs. 1.50 per kWh, which is equal to the additional charges of Rs. 1.50 per kWh during evening peak hours. This is intended to incentivise the identified consumer categories to shift more of their consumption to night off-peak hours, thereby increasing the utilisation of power within the State, rather than APDCL having to sell the surplus power outside the State at lower rates prevailing during night off-peak hours. This will also reduce the overall tariff applicable to the categories having TOD tariff.

7.4.7 As stated earlier, the Commission has introduced a rebate of 3% and 1.5% in the Energy Charges with respect to the Energy Charges determined for FY 2018-19, for all consumers taking supply at 132 kV and 33 kV, respectively.

7.4.8 It is clarified that the Commission has factored in the assessed revenue impact of the higher night off-peak rebate and Voltage Rebate introduced through this Order, in assessing the total revenue from revised tariffs, so that APDCL is able to meet its revenue requirement with the revised tariffs.

7.4.9 At present, GoA is providing targeted subsidies for a few categories. In the absence of any written commitment from GoA for providing category-wise subsidy in FY 2018-19, the Commission has approved the full cost tariff for FY 2018-19, as shown in the Table below:

Table 109: Full Cost Tariff approved by the Commission for FY 2018-19

Sl. No.	Consumer Category	Existing Tariff		Increase/(Decrease) in Tariff		Revised tariff	
		Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)
	LT Category						
LT-1	**Jeevan Dhara 0.5 kW and 1 kWh/day**	15	470	5	(10)	20	460
LT-II	**Domestic A- below 5 kW**						
	0 to 120 units per month	30	565	10	(20)	40	545
	121 to 240 units per month	30	690	10	(20)	40	670
	Balance units	30	790	10	(20)	40	770
LT-III	**Domestic-B 5 kW and above up to 25 kW**	30	750	10	(20)	40	730
LT-IV	**Commercial Load above 0.5 kW and up to 25 kW**	110	820	10	(30)	120	790
LT-V	**General Purpose Supply**	125	700	10	(20)	135	680
LT-VI	**Public Lighting**	120	715	0	(50)	120	665
LT-VII	**Agriculture upto 25 kW**	30	495	10	(30)	40	465
LT-VIII(i)	**Small Industries Rural up to 25 kW**	30	550	10	(30)	40	520
LT-	**Small Industries**	40	575	10	(30)	50	545

Sl. No.	Consumer Category	Existing Tariff		Increase/(Decrease) in Tariff		Revised tariff	
		Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)
VIII(ii)	**Urban up to 25 kW**						
LT-IX	**Temporary Supply**						
	Domestic	80	944	No Change	No Change	80	944
	Non-Domestic Non-Agriculture	125	1154	No Change	No Change	125	1154
	Agriculture	50	519	No Change	No Change	50	519
	HT Category						
HT-I	**HT Domestic above 25 kW (30 kVA)**	30	750	10	(20)	40	730
HT-II	**HT commercial above 25 kW (30 kVA)**	135	830	10	(30)	145	800
HT-III	**Public Water Works**	125	670	10	(30)	135	640
HT-IV	**Bulk Supply above 25 kW (30 kVA)**						
HT-IV(i)	Government Educational Institutions	120	705	10	(25)	130	680
HT-IV(ii)	Others	160	785	10	(20)	170	765
HT-V(A)	**HT Small Industries above 25 kW (30 kVA) and upto 50 kVA**	50	620	10	(30)	60	590
HT-V(B)	**HT Industries-1 50 kVA to 150 kVA**	120	685	10	(30)	130	655

Sl. No.	Consumer Category	Existing Tariff		Increase/(Decrease) in Tariff		Revised tariff	
		Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (paise per kWh)
HT-V(C)	**HT Industries-II above 150 kVA (Option 1)**	160	750	20	(30)	180	720
	HT Industries-II above 150 kVA (Option 2)	290	665	10	(15)	300	650
HT-VI	**Tea, Coffee & Rubber**	230	750	0	(30)	230	720
HT-VII	**Oil & Coal**	300	810	0	(30)	300	780
HT-VIII	**HT Irrigation Load above 25 kW (30 kVA)**	50	650	10	(35)	60	615
HT - IX	**HT Temporary Supply**	160	920	No Change	No Change	160	920
HT – X	**HT Electric Crematorium**	160	450	No Change	No Change	160	450

Notes:

1. $$ - These are Base Tariffs; Additional ToD tariffs have been detailed in the Tariff Schedule
2. The Fixed Charges for LT Temporary and HT Temporary are respectively on Rs/kW/Day and Rs/kVA/Day basis as detailed in Chapter: 9

7.4.10 In case the GoA desires to provide category-wise subsidy in FY 2018-19 under Section 65 of the EA 2003 after the issue of this Order, the GoA may do so under intimation to the Commission. APDCL shall levy category-wise tariffs after adjusting the amount of category-wise subsidy announced by the GoA, under intimation to the Commission along with the complete calculations in this regard. APDCL shall obtain post-facto approval of the Commission for the category-wise tariff after giving effect to the targeted subsidy, as applicable.

The detailed Tariff Schedule is given in Chapter 9.

7.5 Category-wise Cross-subsidy

7.5.1 The Commission has computed the cross-subsidy with respect to the ACoS, and attempted to ensure that the cross-subsidies are within the limits of ±20% of the ACoS, as laid down in the Tariff Policy as well as several Judgments of Hon'ble APTEL. The category-wise cross-subsidy approved for FY 2018-19 by the Commission in this Order are given in the Table below:

Table 110: Category-wise Cross-Subsidy approved for FY 2018-19

Sr. No.	Category of consumers	Average Billing Rate (Rs/kWh)*	Average Cost of Supply (Rs/kWh)	Ratio of ABR to ACOS (%)	Cross-subsidy provided /(received)(%)
	LT Category				
1.	Jeevan Dhara 0.5 kW and 1kWh/day	5.34	7.35	73%	(-)27%
2.	Domestic A- below 5 kW	6.20	7.35	84%	(-)16%
3.	Domestic-B 5 kW and above up to 25 kW	8.11	7.35	110%	(+)10%
4.	Commercial Load above 0.5 kW and up to 25 kW	9.35	7.35	127%	(+)27%
5.	General Purpose Supply	8.35	7.35	114%	(+)14%
6.	Public Lighting	7.49	7.35	102%	(+)2%
7.	Agriculture up to 25 kW	7.64	7.35	104%	(+)4%
8.	Small Industries Rural up to 25 kW	6.43	7.35	88%	(-)12%

Sr. No.	Category of consumers	Average Billing Rate (Rs/kWh)*	Average Cost of Supply (Rs/kWh)	Ratio of ABR to ACOS (%)	Cross-subsidy provided /(received)(%)
9.	Small Industries Urban up to 25 kW	6.67	7.35	91%	(-)9%
	HT Category				
11.	HT Domestic above 25 kW (30 kVA)	7.75	7.35	105%	(+)5%
12.	HT commercial above 25 kW (30 kVA)	9.48	7.35	129%	(+)29%
13.	Public Water Works	7.36	7.35	100%	0%
14.	Bulk Supply above 25 kW (30 kVA)				
14A	Government Educational Institutions	8.49	7.35	116%	(+)16%
14B	Others	8.84	7.35	120%	(+)20%
15.	HT Small Industries above 25 kW (30 kVA) and upto 50 kVA	7.08	7.35	96%	(-)4%
16.	HT Industries-I 50 kVA to 150 kVA	8.01	7.35	109%	(+)9%
17.	HT Industries-II above 150 kVA	8.71	7.35	119%	(+)19%
18.	Tea, Coffee & Rubber	8.67	7.35	118%	(+)18%
19.	Oil & Coal	8.94	7.35	122%	(+)22%
20.	HT Irrigation Load above 25 kW (30 kVA)	8.41	7.35	114%	(+)14%

Note: (+) Cross-subsidy provided to other consumer categories

(-) Cross-subsidy received from other consumer categories

* - ABR has been calculated based on the estimation of the total load and units to be sold to that particular category in FY 2018-19. However, the ABR for individual consumer in a category may vary depending on the total units consumed by the consumer

7.5.2 As can be seen from the above Table, the Average Billing Rate for almost all categories is within the band of 80% to 120% of ACoS, which is in accordance with the Tariff Policy.

7.6 Fuel Price and Power Purchase Adjustment Charges (FPPPA)

7.6.1 Fuel Price and Power Purchase Adjustment charges as per the Regulations notified by the Commission are applicable. As per Regulation 5.2 of the AERC (Fuel and Power Purchase Price Adjustment) Regulations, 2010 "*The FPPPA charges shall not exceed 25% of the variable cost component of tariff or such other ceiling as may be stipulated by the Commission from time to time, where the variable component of tariff is defined as total estimated revenue from energy charges (EC) in a year the approved in the Tariff Order divided by total estimated sales of the year. When FPPPA charges exceed 25% of the variable component of tariff, the licensee shall make a petition to the Commission for recovery of the charges over the specified cap which shall be recovered after Commission's scrutiny and directives".*

7.6.2 APDCL shall strictly follow the above Regulation and when FPPPA charges exceed 25% of the variable components of the tariff, APDCL shall file a Petition before the Commission and FPPPA charges beyond 25% of the variable cost component of tariff shall be recovered only after Commission's scrutiny and approval.

8 Wheeling Charges and Cross-Subsidy Surcharge

8.1 Introduction

8.1.1 The Commission has, in the present Order, determined the Wheeling Charges and Cross-Subsidy Surcharge applicable for Open Access consumers of APDCL for FY 2018-19.

8.2 Allocation Matrix

8.2.1 The Commission has retained the following matrix, considered in previous Orders, for allocation of expenses between the Wires Business and Retail Supply Business in its previous Orders:

Table 111: Allocation Matrix for Separation of ARR for Wires Business and Retail Supply Business for FY 2018-19

Sr. No.	Particulars	Wires Business	Retail Supply Business
1	Power Purchase Expenses	0%	100%
2	*Employee Expenses*	60%	40%
3	*R&M Expenses*	90%	10%
4	*A&G Expenses*	50%	50%
5	Depreciation	90%	10%
6	Interest and Finance Charges	90%	10%
7	Interest on Working Capital	10%	90%
8	Interest on CSD	0%	100%
9	Return on Equity	90%	10%
10	Income Tax	90%	10%
11	Provisioning for Bad & Doubtful Debts	0%	100%
12	Less: Non-Tariff Income	0%	100%
13	Less: Other Income	10%	90%
	Total ARR		

8.2.2 The Commission has adopted the above Allocation Matrix for segregation of the approved ARR for the Wires Business and Retail Supply Business for APDCL for FY 2018-19, as given below:

Table 112: Separation of ARR for Wires Business and Retail Supply Business for FY 2018-19 (Rs. crore)

Sr. No.	Particulars	Wires Business	Retail Supply Business	Total
1	Power Purchase Expenses	0.00	4395.29	4395.29
2	*Employee Expenses*	521.60	347.73	869.33
3	*R&M Expenses*	131.76	14.64	146.40
4	*A&G Expenses*	19.26	19.26	38.52
5	Depreciation	23.99	2.67	26.66
6	Interest and Finance Charges	17.19	1.91	19.10
7	Interest on Working Capital	2.33	21.00	23.33
8	Interest on CSD	0.00	15.37	15.37
9	Return on Equity	23.44	2.60	26.04
10	Income Tax	0.00	0.00	0.00
11	Provisioning for Bad & Doubtful Debts	0.00	14.42	14.42
12	Less: Non-Tariff Income	0.00	218.32	218.32
13	Less: Other Income	15.96	143.67	159.63
	Total ARR	**723.61**	**4472.91**	**5196.52**

8.3 Wheeling Charges

8.3.1 The Wheeling Charges applicable for Distribution Open Access consumers at 33 kV voltage level for FY 2018-19, has been determined from the ARR of the Distribution Wires Business, as determined in the above Table.

Table 113: Wheeling Charges approved by the Commission for FY 2018-19

Sr. No.	Particulars	Units	APDCL	Approved
1	Total Energy Input into Distribution System	MU	9716.92	9361.09
2	Total Wires ARR	Rs. Crore	843.15	723.61
3	Distribution Cost for Wires Business for 33 kV Voltage level (assuming 35% of cost at 33 kV)	Rs. Crore	295.10	253.26
4	**Wheeling Charges for 33 kV Voltage Level**	**Rs/kWh**	**0.30**	**0.27**

8.3.2 The Wheeling Charges for FY 2018-19 as determined in the above Table, are applicable for use of the distribution system of APDCL by other Licensees or generating companies or captive power plants or consumers/users who are permitted open access at 33 kV voltage level under Section 42(2) of the Electricity Act, 2003.

8.3.3 APDCL may approach the Commission for determination of Wheeling Charges for 11 kV level, as and when applicable, with all the relevant data, computations, and justification.

8.4 Applicable Wheeling Losses

8.4.1 The Wheeling Losses applicable for Open Access transactions for FY 2018-19 have been retained at the existing levels, as under:

Table 114: Wheeling Losses approved by the Commission for FY 2018-19

Sr. No.	Particulars	Total
1	At 33 kV level	5%
2	At 11 kV level	11%

8.5 Cross-Subsidy Surcharge

8.5.1 The Open Access consumers are liable to pay the CSS to compensate the utility for any loss of revenue due to the shifting of the consumer to the Open Access system. Eligible consumers with a connected load of 1 MW and above shall be allowed Open Access.

8.5.2 In the MYT Order dated March 31, 2017, the Commission had determined the CSS for Open Access customers for FY 2017-18, as the difference between the ACOS and the ABR for the category.

8.5.3 Accordingly, the CSS for HT-II Commercial Category, HT-IV (i) Bulk Supply Govt. Edu. Institutions category, HT-IV (ii) Bulk Supply Others category, HT-V (C) HT Industry category, HT-VI Tea, Coffee & Rubber category, and HT-VII Oil & Coal category, computed in accordance with the above philosophy, is shown in the Table below:

Table 115: Category-wise Cross-Subsidy Surcharge for FY 2018-19 (Rs/kWh)

Particulars	Legend	FY 2018-19	
		APDCL	Approved
Average Billing Rate for HT Commercial category	A		9.48
Average Billing Rate for HT Bulk Supply - Govt. Edu. Inst. category	B		8.49
Average Billing Rate for HT Bulk Supply Others category	C		8.84
Average Billing Rate for HT-II Industry above 150 kW category	D	9.50	8.71
Average Billing Rate for Tea, Coffee & Rubber category	E		8.67
Average Billing Rate for Oil & Coal category	F		8.94
Average Cost of Supply	G	7.82	7.35
Cross-Subsidy Surcharge for HT Commercial category	H = A - G		1.90*
Cross-Subsidy Surcharge for HT Bulk Supply - Govt. Edu. Inst. Category	I = B - G		1.14
Cross-Subsidy Surcharge for HT Bulk Supply Others category	J = C - G		1.49
Cross-Subsidy Surcharge for HT-II Industry above 150 kW category	K = D - G	1.68	1.37
Cross-Subsidy Surcharge for Tea, Coffee & Rubber category	L = E - G		1.32
Cross-Subsidy Surcharge for Oil & Coal category	M = F - G		1.59

Note: * - The CSS has been limited to 20% of the ABR, in line with the Tariff Policy, 2016

8.6 Applicability of Tariff

8.6.1 The approved Retail Supply Tariffs, Wheeling Charges and CSS for FY 2018-19 shall be effective from April 1, 2018 and shall continue until replaced/modified by an Order of the Commission.

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

9 Directives

The Commission has issued certain directives to APDCL 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, APDCL has submitted the report to the Commission on compliance. The Commission has reviewed the compliance of directives submitted by APDCL. The Commission hereby issues the following directives (including Directives from Sl. 1 to 4, which are reiterated) to APDCL as under:

Directive 1 – Change in beneficiary of PGCIL

The Commission directs APDCL and AEGCL 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. APDCL should include the PGCIL Charges in their Tariff Petition with effect from FY 2019-20.

Directive 2 – Revision of Pay

The Commission directs APDCL to submit actual impact on account of Revision of Pay, including detailed calculation and justification along with documentary evidences based on Audited Accounts for FY 2017-18 and revised projections for FY 2018-19. APDCL should maintain details of expenses incurred on ROP in FY 2017-18 and FY 2018-19 and also for the arrears paid separately.

Directive 3: Submission of Voltage-wise Losses and Voltage-wise Cost of Supply

APDCL is directed to submit properly reconciled data on voltage-wise losses and VCoS, based on proper energy audit, and with complete explanation and supporting data, along with the MYT Petition for the next Control Period.

Directive 4: FPPPA

APDCL shall strictly follow the AERC (Fuel and Power Purchase Price Adjustment) Regulations, 2010, for levy of FPPPA, and intimate the Commission and consumers before levy of FPPPA.

Directive 5: Verification of Sales and Revenue Data

APDCL is directed to reconcile the actual category-wise revenue and the revenue computed using the actual category-wise sales and load and the tariffs applicable during the particular Year, while submitting its true-up Petition for any Year. Such reconciliation should form part of all future True-up Petitions filed by APDCL.

Directive 6: Capacity Building of Tariff Cell

The Commission observes that there are several obvious errors in filing of the Petitions and calculation and presentation of Revenue Gap/(Surplus), etc. It is also seen that many of the submissions are conceptually wrong. The Commission has provided for a Training Budget of Rs. 1 crore in the ARR of FY 2018-19. APDCL should prepare and submit the Training Calendar for FY 2018-19 to the Commission by April 30, 2018. The Training should also focus on capacity building of the Tariff Cell through special training regarding regulatory aspects of ARR and Tariff determination, financial principles, etc., in order to realise long-term benefits.

Directive 7 – Approval for deviation in Capital Expenditure scheme approved in Business Plan Order dated September 1, 2016

The Commission directs APDCL 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. APDCL 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 8 – Compliance of Audit Observations

The Commission noted that Statutory Auditors and CAG have made several comments on the Audited Accounts. APDCL is directed to take corrective actions on the same expeditiously.

Directive 9: Separation of Feeders for Tea category

APDCL is directed to expedite the separation of Feeders for the Tea category from the rural load, in order to ensure reliable quality of supply for the Tea category.

Directive 10: Voluntary Disclosure Scheme for Connected Load

APDCL is directed to carry out a campaign for soliciting details of the actual Connected Load of the consumers through a Voluntary Disclosure Scheme, in order to facilitate recovery of the appropriate Fixed Charges. APDCL should ensure that the Scheme is simple and easy to administer and the Format and procedure for voluntary submission of revised Connected Load does not result in undue harassment to the consumers.

Directive 11: Safety Measures

APDCL is directed to expedite the preparation of a DPR for improving the safety levels of system operation, as there have been several concerns expressed regarding the safety of APDCL's operations. The Commission has provided Rs. 1 crore in the ARR of FY 2018-19 for preparation of the DPR. APDCL should submit the DPR within 3 months of this Order and take urgent steps to arrange the funds for taking up the capital works for necessary safety improvement measures.

Directive 12: Outsourcing of Sub-stations

APDCL is directed to re-examine the present practice of outsourcing the maintenance of some of the 33/11 kV sub-stations after analysing the pros and cons of such an approach. In case outsourcing is done because of unavoidable reasons, APDCL is required to ensure proper supervision and monitoring of the work of the Contractors appointed for the purpose, as the primary responsibility for proper and adequate maintenance of the sub-stations and collection of data on SAIDI, CAIDI, etc., lies with APDCL.

Directive 13: Provisioning for Bad and Doubtful Debts

It is observed that APDCL is provisioning for Bad and Doubtful debts every year, which is approved by the Commission. However, the accumulated provision is not being utilised for actual write-off of bad debts. APDCL needs to rationalise its approach and assess whether further provisioning is required, and also to verify which receivables are beyond recovery and need to be written off, through a proper process.

Directive 14: Incentive Scheme for Employees

APDCL shall examine to formulate an Incentive Scheme for employees, to reward the employees for achieving clearly identified performance levels, which shall be payable in case APDCL earns profit in any year. APDCL shall submit such Employee Incentive Scheme for the Commission's approval, along with the basic framework of the scheme, assessed expenses, proposed method to recover the expenses on account of incentives, etc.

Further, APDCL is directed to submit the status of compliance of above Directives to he Commission at the end of each quarter. The Commission will review the status in the month following the end of the quarter.

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

10 Tariff Schedule

This Chapter details the tariffs applicable in the State of Assam with effect from April 1, 2018 until replaced/modified by an Order of the Commission.

For the purpose of this Schedule, the consumers are divided into two distinct groups based on voltage of supply, i.e., LT Group and HT Group. The consumers are further divided into categories based on purpose of supply and nature of supply.

Common Terms & Conditions for both, LT Group and HT Group

(a) Surcharge for delayed payment: Surcharge @ 1.5% per month or part thereof at simple interest shall be levied, if payment is not made in full on or before the due date.

(b) Payments shall be made by cash/local cheque/DD/Electronic Transfer (where applicable): For all payments made by DD, the commission shall be borne by the consumers.

(c) The Tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law/State Government Rule in force. Such charges, if any, shall be payable by the consumers in addition to tariff charge.

LT GROUP

Supply Voltage: 1 Ph, 230 V AC and 3 Ph, 415 V AC

Common Terms & Conditions for LT Group

(a) For the purpose of determination of monthly fixed charge based on Connected Load, the Connected Load shall be rounded up to the next higher kW if the decimal is higher than 0.5 and the nearest lower kW if the decimal is lower than 0.5.

(b) For Jeevan Dhara consumers having Connected Load below 0.5 kW, Connected Load shall be rounded off to 0.5 kW.

Power factor penalty and rebate

[Applicable for LT IV –Commercial, LT V – General Purpose Supply, LT VIII – Small Industries, and HT I – Domestic, HT II – Commercial, HT III – Public Water Works, HT IV – Bulk Supply, HT V (A) - Small Industries, HT V (B) – HT I Industry, HT V (C) – HT II Industry, HT VI – Tea, Coffee & Rubber, HT VII – Oil & Coal, HT VIII – Irrigation, and HT X – Electric Crematorium]

(a) Power Factor Rebate:

i. In case, the average PF (leading or lagging) maintained by the consumer is more than 0.85 and upto 0.95, a rebate of 1% on the Energy Charges on unit consumption shall be applicable;

ii. For PF (leading or lagging) of 0.95 and above upto 0.97, a rebate of 2% on the Energy Charges on unit consumption shall be applicable;

iii. For PF (leading or lagging) of 0.97 and above upto Unity PF, a rebate of 3% on the Energy Charges on unit consumption shall be applicable.

(b) Power Factor Penalty:

i. In case average PF (leading or lagging) in a month for a consumer falls below 0.85, a penalty @1% for every 1% fall in PF (leading or lagging) from 0.85 to 0.60; plus 2% for every 1% fall below 0.60 to 0.30 upto and including 0.30 shall be levied on total unit consumption. PF penalty shall be levied on those consumers where PF is recorded electronically.

<u>LT Category-1 Jeevan Dhara:</u>

<u>Applicability</u>

This Tariff shall be applicable for supply of power to any premises exclusively for the purpose of own requirements with a Connected Load of not more than 0.5 kW and consumption upto 1 kWh/day or 30 kWh per month.

(c) Tariff:

Consumption	**Energy Charge**	**Fixed Charge**
For consumption upto 30 kWh per month	Rs. 4.60 /kWh	Rs. 20 per connection per month

If any Jeevan Dhara consumer consumes more than 30 units per month for 2 consecutive months, then such consumer should be transferred to Domestic A category and billed accordingly thereafter, irrespective of the number of units consumed.

<u>LT Category –II: Domestic A</u>

<u>Applicability</u>

This tariff shall be applicable for supply of power to consumers having connected load below 5 kW for residential premises, exclusively for domestic purposes only. This shall also include supply of power to occupants of flats in multi-storied buildings, if the premises have not been classified under Domestic B or HT Domestic and receiving bulk power at single point without any individual metering arrangements for domestic purposes.

(a) Tariff

Consumption	**Energy Charge**	**Fixed Charge**
First 120 kWh per month	Rs. 5.45 /kWh	Rs. 40 /kW/ month
From 121 – 240 kWh per Month	Rs. 6.70 /kWh	
Balance kWh	Rs. 7.70 /kWh	

NOTE:

If any part of the domestic connection is utilised for any use other than dwelling purpose like commercial, industrial, etc., the entire consumption shall be treated under that category and the respective tariff shall be applied for the entire consumption.

LT Category-III: Domestic-B

Applicability

This tariff shall be applicable for supply of power to consumers having Connected Load of 5 kW and above upto 25 kW exclusively for domestic purposes only. This shall also include bulk supply at single point for supply to occupants of flats in multi-storied buildings having individual metering for domestic purposes.

(a) Tariff:

	Energy Charge	**Fixed Charge**
For all consumption.	Rs 7.30 /kWh	Rs. 40 /kW/month

NOTE:

If any part of the domestic connection is utilised for any use other than dwelling purpose like commercial, industrial, etc., the entire consumption shall be treated under that category and the respective tariff shall be applied for the entire consumption.

LT Category-IV: LT Commercial

Applicability

This tariff shall be applicable for supply of power to consumers having Connected Load upto 25 kW to all establishments and institutions of commercial nature and connected with trading activities, including commercial offices, Government and public sector commercial installations, commercial houses, optical houses, shops, hotels, restaurants, bars, refreshment stalls, showcases of advertisements, theatres, cinema halls, guest houses, laundries, dry-cleaners, Railway stations, public and private bus-stands not covered under any other category of consumers, copy works, X-ray installations, private nursing homes/clinical laboratories, photographic studios, battery charging units, workshops, petrol pumps, factory & printing presses not using motive power in the manufacturing process, private educational and cultural institutions, lodging and boarding houses.

(a) Tariff

	Energy Charge	**Fixed Charge**
For all consumption	Rs. 7.90 /kWh	Rs. 120 /kW/month

LT Category V- LT General Purpose Supply

Applicability

This tariff shall be applicable for supply of power to consumers having Connected Load upto 25 kW to all Non-commercial and Non-domestic users of electric power like Government offices, Semi-Government Educational and cultural institutions, Government hospitals, dispensaries, Charitable institutions and Trusts (public or private formed solely for charitable or religious purposes), Dharamshalas, Non-commercial boarding and lodging houses and other Non-commercial institutions.

(a) Tariff

	Energy Charge	**Fixed Charge**
For all consumption.	Rs. 6.80 /kWh	Rs. 135 /kW/month

LT Category VI-Public Lighting

Applicability

This tariff is applicable to supply of power for street lighting systems in Municipalities, Town Committees and Panchayat, etc., Signal systems in roads and park lighting, in areas of Municipality/Town Committee/Panchayat, etc.

(a) Tariff

	Energy Charge	Fixed Charge
For all consumption.	Rs. 6.65 /kWh	Rs. 120 /kW/month

N.B. In case any unmetered supply is provided in exigency, the energy shall be assessed considering 12 hours per day burning hours for the energy charge. For example, if the total connected load of the street light service is 1 kW, energy shall be assessed as 12 units per day.

LT Category VII-Agriculture

Applicability

This tariff shall be applicable for supply of power for agriculture / irrigation purpose in the agricultural sector having Connected Load upto 25 kW.

(a) Tariff

	Energy Charge	Fixed Charge
For all consumption	Rs. 4.65 /kWh	Rs. 40 /kW/month

LT Category VIII – Small Industries

Applicability

This tariff is applicable for supply of power for industrial purposes having licence from designated authority of appropriate Government and not covered under any other category, for consumers having Contract Demand/Connected Load upto 25 kW.

(a) Tariff

	Energy Charge	Fixed Charge
Rural Industries – for all consumption	Rs. 5.20 /kWh	Rs. 40 /kW/month
Urban Industries - for all consumption	Rs. 5.45 /kWh	Rs. 50 /kW/month

LT Category IX: Temporary Supply:

Applicability

This Tariff will be applicable for electric supply of power at LT, which is temporary in nature for a period not exceeding one month.

	Charges
Domestic	Rs. 80/kW/day or Rs. 9.44/kWh whichever is higher
Non Domestic non agricultural	Rs.125/kW/day or Rs. 11.54/kWh whichever is higher
Agricultural	Rs. 50/kW/day or Rs. 5.19/kWh whichever is higher.

HT GROUP

Tariff for this group is applicable for those consumers availing power supply at 11 kV or above. Calculations shall be deemed to be in kVA for consumers under this part of the tariff schedule. However, consumers above 25 kW (or 30 kVA) Connected Load and drawing power at LT are also covered under this Group. During the period of conversion from LT supply to HT supply, the consumer shall have to pay the necessary compensatory charges (10% & 3% of total energy consumption for LT line & DTR, respectively).

Common Terms & Conditions for HT Group

(a) For supply at voltages higher than as applicable to the consumers, rebate @ 3% shall be applicable on energy consumption for each higher level of voltage, and a surcharge of 3% shall be applicable if consumer draws power at lower than the applicable voltage level.

(b) In case, metering is done on the L.T. side of the distribution transformer, for a group of consumers receiving power, then for the purpose of billing, an additional energy consumption on account of transformer loss computed @ 3% on the consumer's Energy Charges shall be added.

(c) **Voltage Rebate**

i) A rebate of 3% in the Energy Charges shall be applicable for all consumers taking supply at 132 kV.

ii) A rebate of 1.5% in the Energy Charges shall be applicable for all consumers taking supply at 33 kV.

(d) Contract Demand: The Contract Demand shall be as per the Agreement executed between the consumer and APDCL. In case declaration/option is not made by the consumer, 100% of the Connected Load converted to kVA shall be the contracted demand.

(e) Billable Demand: Billing demand shall be 100% of Contracted Demand or Recorded Demand, whichever is higher. In case the meter remains defective in a month, billing demand shall be considered as per clause 6.3.4 of AERC (Electricity Supply Code) Regulations, 2017, as amended from time to time.

(f) Overdrawal Penalty: If the Recorded Demand is higher than the Contracted Demand in a month, then fixed charge based on Contracted Demand shall be levied at three times the normal rate for the portion of demand exceeding the Contracted Demand.

HT Category I: HT Domestic

Applicability

This tariff shall be applicable for supply of power to consumers having Connected Load above 25 kW (or 30 kVA) to residential premises, exclusively for domestic purposes only. This shall also include supply of power to occupants of flats in multi storied buildings/ residential colony, receiving bulk power at single point with single metering for domestic purposes.

(a) Tariff:

	Energy Charge	**Fixed Charge**
For all consumption.	Rs. 7.30 /kWh	Rs. 40 /kVA/month

NOTE:

If any part of the domestic connection is utilised for any use other than dwelling purpose like commercial, industrial, etc., the entire consumption shall be treated under that category and the respective tariff shall be applied for the entire consumption.

HT Category-II: HT Commercial

Applicability

This tariff shall be applicable for supply of power to consumers having Connected Load above 25 kW (or 30 kVA) to all establishments and institutions of commercial nature and connected with trading activities, including commercial offices, Government and public sector commercial installations, commercial houses, optical houses, shops, shopping malls, restaurants, hotels, bars, refreshment stalls, showcases of advertisements, theatres, cinema halls, guest houses, laundries, dry-cleaners, Railway stations, public and private bus-stands not covered under any other category of consumers, copy works, X-ray installations, private nursing homes/clinical laboratories, photographic studios, battery charging units, workshops, petrol pumps, factory & printing presses not using motive power in the manufacturing process, private educational and cultural institutions, lodging and boarding houses.

(a) Tariff

	Energy Charge	**Fixed Charge**
For all consumption	Rs. 8.00 /kWh	Rs. 145 /kVA/month

HT Category - III: Public Water Works

Applicability

This tariff is applicable for public water supply maintained by Government or Government Corporations, Municipalities, Town Committees and Panchayats.

(a) Tariff

	Energy Charge	**Fixed Charge**
For all consumption.	Rs. 6.40 /kWh	Rs. 135 /kVA/month

HT Category – IV: Bulk Supply

Applicability

This tariff is applicable to Bulk consumers with a Connected Load above 25 kW (or 30 kVA) provided that the consumers not covered by any other category such as any domestic connection, industries, tea, etc., and who make their own internal distribution arrangement at their own cost and receive power at the point of supply at high or extra high voltage. This is further classified as under:

(i) **Government educational institution**-like universities, engineering colleges, medical colleges with residential facilities and

(ii) **Others** - categories not included in any of the above categories, including Government offices, Railways, Military Engineering Services, etc.

(a) Tariff

(i) Bulk Government Educational Institutions

	Energy Charge	**Fixed Charge**
For all consumption.	Rs. 6.80 /kWh	Rs. 130 /kVA/month

(ii) Others

	Energy Charge	**Fixed Charge**
For all consumption.	Rs. 7.65 /kWh	Rs. 170 /kVA/month

HT Category V (A): HT Small Industries

Applicability

This tariff is applicable for supply of power for industrial purposes having licence from designated authority of appropriate Government and not covered under any other category, for consumers with Connected Load above 25 kW (or 30 kVA) and up to 50 kVA, irrespective of location of the industry in rural area or urban area.

(a) Tariff

	Energy Charge	**Fixed Charge**
For all consumption.	Rs. 5.90 /kWh	Rs. 60 /kVA/month

HT Category V (B)-HT-I Industries

Applicability

This tariff is applicable for supply of power to industrial consumers having licence from designated authority of appropriate Government and not covered under any other category, at a single point for industrial purposes with Contract Demand/Connected Load above 50 kVA and up to 150 kVA.

(a) Tariff

	Energy Charge (Base Tariff)	**Fixed Charge**
For all consumption	Rs. 6.55 /kWh	Rs. 130 /kVA/month

TOD tariff

In addition to the above Base Tariff, the following Time of Day (TOD) tariff for HT-I industries shall be applicable:

Time Slot	**Energy charge (Rs./kWh)**
0600 hrs to 1700 hrs (normal)	0.00
1700-2200 hrs (peak)	(+) 1.50
2200-0600 hrs (night off-peak)	(-) 1.50

HT Category V (C): HT-II Industries

Applicability

This tariff is applicable for supply of power at a single point for industrial purposes having licence from designated authority of appropriate Government and not covered under any other category, for Contract Demand/Connected Load above 150 kVA.

(a) Tariff

A consumer may opt for any one of the following Options depending on his requirements by prior intimation to concerned billing unit of Discom. A consumer may change his Option only after six months of availing that particular Option.

Option -1

	Energy Charge (Base Tariff)	**Fixed Charge**
For all consumption	Rs. 7.20 /kWh	Rs. 180 /kVA/month

In addition to the above Base Tariff, the following Time of Day (TOD) tariff for HT-II Industries shall be applicable:

Time Slot	**Energy Charge (Rs./kWh)**
0600 hrs to 1700 hrs (normal)	0.00
1700-2200 hrs (peak)	(+) 1.50
2200-0600 hrs (night off-peak)	(-) 1.50

Option -2

	Energy Charge	**Fixed Charge**
For all consumption	Rs. 6.50 /kWh	Rs. 300 /kVA/month

No TOD Tariff will be applicable for consumers who opt for Option-2.

HT Category VI-Tea, Coffee and Rubber

Applicability

This tariff is applicable for tea, coffee and rubber plantation/production by utilisation of electrical power in factory, irrigation, lighting, etc., in the Estate.

(a) Tariff

	Energy Charge (Base Tariff)	**Fixed Charge**
For all consumption.	Rs. 7.20 /kWh	Rs. 230 /kVA/month

In addition to the above Base Tariff, the following Time of Day (TOD) tariff for HT-VI Tea, Coffee & Rubber shall be applicable:

Time Slot	Energy Charge (Rs./kWh)
0600 hrs to 1700 hrs (normal)	0.00
1700-2200 hrs (peak)	(+) 1.50
2200-0600 hrs (night off-peak)	(-) 1.50

HT Category VII - Oil and Coal

Applicability

This tariff shall be applicable for supply of power to consumers at a single point for installations of Oil and Coal Sector.

(a) Tariff

	Energy Charge (Base Tariff)	Fixed Charge
For all consumption.	Rs. 7.80 /kWh	Rs. 300 /kVA/month

In addition to the above Base Tariff, the following Time of Day (TOD) tariff for HT-VII Oil and Coal shall be applicable:

Time Slot	Energy Charge (Rs./kWh)
0600 hrs to 1700 hrs (normal)	0.00
1700-2200 hrs (peak)	(+) 1.50
2200-0600 hrs (night off-peak)	(-) 1.50

HT Category VIII: HT Irrigation

Applicability

This tariff shall be applicable for electricity supply for agriculture / irrigation purpose in the agricultural sector for pump set above 25 kW (or 30 kVA) and for whom power has been supplied at 11 kV or above.

(a) Tariff

	Energy Charge	Fixed Charge
For all consumption	Rs. 6.15 /kWh	Rs. 60 /kVA/month

HT Category IX: Temporary Supply:

Applicability

This Tariff will be applicable for electric supply of power at HT which is temporary in nature for a period not exceeding one month.

Charges
Rs. 160 /kVA/day or Rs. 9.20 /kWh, whichever is higher

HT Category – X: Electric Crematorium

Applicability

This tariff is applicable for electricity used in Electric Crematoriums for all purposes, including lighting.

(a) Tariff

	Energy Charge	Fixed Charge
For all consumption.	Rs. 4.50/kWh	Rs. 160/kVA/month

- This Tariff Order shall continue to be applicable until it is replaced/modified by an Order of the Commission.
- This Tariff Order is signed by the Assam Electricity Regulatory Commission on March 19, 2018.
- These Tariffs take effect from April 1, 2018.

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

11 Annexures

11.1 Annexure – 1 - Minutes of the 22nd Meeting of the State Advisory Committee

The 22nd meeting of the State Advisory Committee (SAC) was held on 8th February, 2018 at the Administrative Staff College, Guwahati.

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

Presiding over the meeting, the Hon'ble Chairperson (Off.), AERC, Shri D. Chakravarty welcomed all members and invitees of the State Advisory Committee. Shri Chakravarty briefly explained that the purpose of the meeting was primarily to discuss the tariff petitions filed by the State Power utilities for FY 2018-19 and the uniform Renewable Purchase Obligation (RPO) targets proposed by the Ministry of New & Renewable Energy (MNRE), Government of India. This was followed by an introductory session among the members and invitees. Thereafter, the agenda items were taken up for discussion in seriatim. The important points raised by the Hon'ble Members during the course of discussions are briefly recorded below.

Agenda No. 1: Confirm the Minutes of the 21st meeting of SAC held on 04.03.2017

The Minutes of the 21st Meeting of the Committee were circulated among the Members and Special Invitees. No comment was received on the Minutes. With the approval of the members, the Minutes of the 21st meeting of the SAC were confirmed.

Agenda No. 2: Action Taken on the minutes of the 21st 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. Hard copies of the action taken reports were also circulated among the members of SAC. The Chairperson (Off.), AERC asked the respective utilities to respond to any query from the SAC Members. The queries/ suggestions from the members and respective replies are noted below:

i) Representative from CII, Ms S. Sarma commented that RPO targets and its fulfillment through purchase of Renewable Energy Certificates (RECs) is an additional financial burden on the State. She questioned as to whether RPO fulfillment is necessary at present, given the fact that availability of renewable energy in the State is limited.

   It was informed from the Chair that RPO targets were set by the Commission considering the policy directives of the Government of India. Besides, opinion of the Stakeholders were also considered while fixing the RPO targets, therefore, RPO fulfillment cannot be avoided by the obligated entities. Shri Chakravarty observed that a State like Assam has sufficient renewable energy potential which needs to be harnessed by the obligated entities in order to avoid buying RECs. That is one of the objectives of RPO – to encourage generation of renewable energy. He stated that the issue may be discussed further when the agenda item for RPO is taken up.

ii) Regarding installation of separate feeders for HT and Tea Consumers, Secretary ABITA, Shri A. Sharma stated that the consumers in North Bank particularly Udalguri, Lakhimpur, Rangapara and Biswanath need to be looked into given the poor power situation prevailing in those areas. He stated that the North Bank is yet to be covered in the proposed plan.

In his reply, MD APDCL, Shri P. Gupta (IAS) stated in the Annual Plan for FY 2017-18, 35 gardens have been selected for providing separate feeders at an estimated cost of Rs 8.31 Cr and the tender process for these are underway. He informed that, in addition, execution of separate feeders for 85 Tea gardens is going on under ADB funding at an estimated cost of Rs 35 Crore. He further informed that if there was any tea garden which needs to be taken up on priority, it can be added to the list in the next budget. He stated that the list of Tea estates included for feeder separation will be provided to ABITA.

Representative from AIMO, Shri H. Sutodiya informed that Karbi Anglong district was the least yielding district of Assam with regard to tea. The power situation in Karbi Anglong District is not at all conducive for the few organized tea gardens situated there, and therefore, these gardens may be considered for feeder separation on priority. He explained that with implementation of the Government of India "Power for All" Schemes, a number of domestic consumers have been added to the feeders providing power to the gardens. As a result, the power quality has deteriorated in these gardens and separate feeders are likely to help the situation.

Hon'ble Chairperson (Off.), AERC requested APDCL to look into the matter and MD, APDCL assured to do so.

iii) Hon'ble Member, AERC, Shri S.C. Das IAS (Retd.) expressed surprise that tariff for the 2 MW Namrup Solar PV project was quoted so high at Rs 6.57 /kWh and that too when land was offered for free. He observed that the cost of solar power was declining and tariffs determined by the Commission recently for solar projects including land cost is around Rs 6 /kWh. Shri Das suggested that since the 2 MW Project was abandoned by APGCL, the Company may now consider setting up a Grid Interactive solar plant of higher capacity instead.

MD APGCL, Ms. Kalyani Baruah informed that the Company has already decided to set up a solar plant of 15 MW in Namrup as land is available.

Member AERC, Shri S.C Das further suggested that APGCL should explore the possibility of setting up solar projects in other areas of Assam as well. He observed that the price of solar power is likely to decrease further.

MD APDCL informed that the price quoted by APDCL in the recent reverse auction for solar power without evacuation facility was in the range of Rs 4.36 /kWh and Rs 4.48/ kWh and PPA with developers are likely to be signed within 31st March, 2018.

Ms S. Sharma, CII suggested that tariffs determined should be commensurate with voltage at which power is supplied, connected load, etc.

Shri K. Medhi, Secretary, NESSIA asked the status regarding the proposal for installation of prepaid meters in 5 Circles of Assam, whether annual calenders for generating consumer awareness published by APDCL were being circulated among the consumers, the status of distribution of LEDs and status of the Amguri and Chandrapur Solar Power Projects.

MD, APDCL, Shri P. Gupta (IAS) informed as follows:

- Although decision was taken to install prepaid meters in the 5 highest loss making districts of Assam from savings under ADB funds, the same was diverted to the lower Kopili project and material procurement for transformers. Inspite of this, installation of prepaid meters has been taken up intensively. Around 22,000 prepaid meters have been procured and these are being installed and more shall be done in future.
- Annual calenders are displayed in all the APDCL collection and billing offices so that awareness can be generated among consumers visiting these offices. Besides, various awareness programs to ensure safety and other issues have been undertaken by the respective field offices.
- Approximately 20 lakh LED bulbs have been distributed so far under UJALA and DELP schemes. Consumers can have real time information regarding distribution of LEDs through the UJALA App of the Government of India.
- MD, APGCL, Ms K. Baruah informed that the 70 MW Amguri Solar Project is progressing well and is likely to come under operation within 2019. She further informed that the 20 MW Chandrapur Solar plant was found to be unfeasible due to its undulating structure.

  The Principal Secretary, Power, Government of Assam, Shri J. Baruah (IAS) informed that Government of India has proposed extension of the National Grid gas pipelines to Assam. He stressed that APGCL may seize the opportunity to start a gas based thermal power station in Chandrapur. Besides, since modern thermal plants require lesser manpower and space, the available infrastructure at Chandrapur might be used to house a training institute for power sector employees of the State.

iv) Shri J. Baruah (IAS), Principal Secretary, Power, Government of Assam stated that he was contemplating to hold a meeting with ABITA and tea associations to discuss the issues related to tea gardens as it was an important sector contributing more than 10 % of APDCL's revenue.

v) Prof. B.K. Roy, NIT Silchar observed that the Companies did not provide any reply/ status to many issues discussed during the last meeting. He suggested that if action against any issue was pending, the companies should inform so.

On his query regarding status of constitution of Coordination Committees (to resolve power related issues with the tea gardens), it was informed by MD, APDCL that meetings have been held among officers of APDCL and tea garden officials from time to time and a number of issues were resolved, wherever possible. However, APDCL was considering institutionalizing the Committees so that they met every month.
Ms S. Sarma, CII requested that these committees should be formed for other HT consumers as well.

Hon'ble Chairperson (Off.), AERC requested that the status of the functioning of these Committees be forwarded to the Commission.

Prof, B.K. Roy, NIT Silchar also suggested that awareness programmes on power sector may be organized in schools through quiz, debate and essay writing competitions, etc. He opined that such programmes can be very effective and could be conducted by the local APDCL offices and cost involvement would be minimal.

Agenda No. 3 (i) : Presentation on Tariff Petition for FY 2018-19 by AEGCL

There was a brief power point presentation on the revised Annual Revenue Requirement and tariff for FY 2018-19 along with true up for FY 2016-17 and Annual Performance Review for FY 2017-18. The status of ongoing projects in AEGCL was also discussed. The following discussions took place during the course of the presentation.

i) Shri H. Sutodiya, AIMO wanted to know the reason behind cheap power i.e less than Rs 3/ kWh from Bhutan. Hon'ble Member, AERC Shri S.C. Das informed that most of the power projects in Bhutan are hydro based projects and subsidized by the Government and therefore, cheaper.

ii) Ms S. Sarma, CII suggested that Assam should try to procure this cheap power as the requisite infrastructure to transmit this power is available.

Hon'ble Member, AERC Shri S.C. Das informed that the power from Bhutan cannot be procured directly by APDCL as it is international power and is allocated by the Government of India. He informed that Assam has been allocated 118 MW from Nikasu Power Project, Bhutan which is likely to be received from July, 2019.

MD, APDCL, Shri P. Gupta (IAS) stated that cross-border power transmission Regulations are yet to be framed by the Central Commission.

Hon'ble Member, AERC Shri Das informed that till such time these Regulations are framed, power can be transmitted through bilateral arrangement as is being done by Tripura and Bangladesh.

Representative from IEX, Shri N. Sabikhi informed that although cross – border trading is presently being done on bilateral mode, it may become possible for Assam to buy power directly through the exchanges as the CERC Regulations (which is under draft stage) permits term ahead transactions for cross border trading. He further informed that once the system is in place, Assam will be able to compete with any other State in India on the exchange for cross border power from SAARC nations (barring Pakistan and Afghanistan).

iii) Shri S. Agarwal, FINER asked the reasons behind increase in the PGCIL and depreciation charges than what was approved by the Commission in FY 2016-17 and FY 2017-18.

MD, AEGCL, Shri S. N. Kalita informed that PGCIL charges have increased on account of the revision by CERC and switch over to Point of Connection charges. He further informed that depreciation charges shown during the presentation were inclusive of grants and is likely to change, as the Commission do not allow grants in depreciation to be passed on to tariff.

iv) Shri K. Medhi, Secretary, NESSIA observed that more than 50% of AEGCL cost accounted for PGCIL charges. Therefore, he suggested that the Company may try to built and augment its own network at least within the State, particularly, in view of the new initiatives under Advantage Assam and accommodate the anticipated increased power flow.

MD, AEGCL Shri S. N. Kalita informed that since most of the power consumed within the State was imported from outside the State, PGCIL charges were high. MD, AEGCL remarked that the suggestion was noted. He informed that plans are already on to augment the capacity of the State transmission network and steps would be taken accordingly.

Agenda No. 3 (ii): Presentation on Tariff Petition for FY 2018-19 by APGCL

APGCL made a brief power point presentation on the revised Annual Revenue Requirement and tariff for FY 2018-19 along with true up for FY 2016-17 and Annual Performance Review for FY 2017-18. The status of ongoing projects in APGCL was also discussed. The important points raised by the participants during the course of the presentation are summarized below:

i) MD, APGCL, Ms K. Baruah informed that the Lakwa Replacement Power Project (LRPP) of 70 MW will become operational from April 2018. The LRPP will replace the LTPS Stage I Project of 60 MW.

ii) Regarding the status of 70 MW Amguri Solar Power Project, MD APGCL reiterated that SECI is the consultant for the project and tender has been floated for reverse bidding with a capping of Rs 3.50/ kWh. She informed that the Capacity Utilization Factor (CUF) for the project is considered as 17%.

Representative from ABITA, Shri A. Kakati mentioned that the climatic conditions in the region was perhaps not very conducive for setting up solar projects. Citing an example of a private100 KW solar plant set up, he stated that CUF achieved from this Solar Plant is much lesser than expected at about 14%, He, however, said that this may be so due to location of the solar plant, which is near to Bhutan.

MD, APDCL, Shri P. Gupta (IAS) informed that the CUF recorded at the 5 MW solar power project at Balipara is 15.5%. MD, APDCL stated that solar projects constitute a sizeable part of power generation in Germany even when intensity of solar radiation is relatively less than in Assam. Member, AERC observed that lower CUF may also be due to sub-standard quality of the solar panels being supplied.

iii) On a query from Ms S. Priyadarshini, Associate Prof, DCB Girls' College regarding the status of Namrup Replacement Power Project (NRPP) and Myntriang SHEP, it was informed by MD, APGCL, Ms. K. Baruah that NRPP could not be commissioned last year due to some unfortunate breakdowns in the plant machineries. M/s Bharat Heavy Electricals Limited (BHEL), the developer of the project has sought extension for commissioning of the project and it was expected that the plant may be commissioned by September, 2018.

Regarding Myntriang SHEP, it was informed that Stage I of the project would come into operation by April 2018. Stage II of the project is already under operation.

Replying to a query from Prof. B.K. Roy, regarding who would bear the enhancement in project cost caused by delay of NRPP, MD APGCL stated that penalty charges have already been incurred on M/s BHEL due to the time overrun and any additional project cost would be entirely borne by M/s BHEL. Nevertheless, APGCL is losing generation due to delay in commissioning of NRPP.

iv) Shri K. Medhi, NESSIA stated that the Margherita Thermal Power Project has been inordinately delayed and enquired regarding the status of the project.

MD, APGCL, Ms K. Baruah informed that the Ministry of Power, Government of India has approved an enhanced 3,200 (800x4) MW thermal Power Plant in Margherita and NTPC Limited has recently submitted a DPR for the first phase i.e. 1600 (800x2) MW of the Project. Ms.Baruah further informed that the most crucial parameter for the successful commissioning of the project is grant of coal linkage. The DPR is now under examination and once it is finalized along with the coal linkage, the project is likely to be commissioned within 5 years. However, the present production capacity of the NER Coal Fields is only about 1 million ton per year which is insufficient to run a coal based project of this capacity. As providing Coal linkage to the project is a prerogative of the Government of India, therefore, no concrete timeline can be drawn at present regarding the completion of the project.

v) Shri S. Agarwal, FINER questioned APGCL on the status of their agreement with the gas suppliers with regard to minimum off take/ supply of gas in view of the decommissioning of the APGCL Stations of Namrup & Lakwa.

MD, APDCL explained that according to the GSA with Oil India Limited (OIL), in case of less off take of gas by APGCL than agreed quantity, due to decommissioning /breakdown of any generating unit, the Company would be required to compensate OIL and if OIL is unable to supply gas as per the agreement, it would have to compensate APGCL. As per this arrangement, Rs 1.49 Cr is payable to OIL.
Shri Agarwal commented that since APGCL was not receiving adequate gas supply for its power stations, APGCL may explore the possibility of buying gas from traders at competitive rates on rental basis to avoid loss in generation and also paying compensation against minimum guaranteed quantity.

vi) Ms. S. Sarma, CII questioned regarding the present shortfall in generation in the State and strategy, if any, to overcome this shortfall.

MD, APGCL, Ms K. Baruah informed that at present the gross generation from APGCL generating units was around 240 MW although average peak demand is 1450 MW and off-peak demand is around 1200 MW. Ms Baruah informed that a number of new projects are under different stages of development namely the 120 MW Lower Kopili Hydro Electric Project, Myntriang Stage I, NRPP and LRPP besides, a number of Solar projects. It was informed that replacement plants namely NRPP and LRPP would contribute additional 60 MW power into the system (50 MW and 10 MW respectively).

The Principal Secretary, Power, Government of Assam, Shri J. Baruah (IAS) informed that in addition to APGCL, the Distribution Company procured power from Central Sector Generating Sectors, through bilateral and exchange trading, Banking, etc to meet the demand for the State. He further informed that although there was an occasionally shortfall during peak hours, the Company could sell power during off-peak hours. He stressed that although there was power available from different sources outside the State, it always made economic sense to increase own power generation as APDCL power cost about Rs 4.09/ unit, power from outside cost around Rs 5.23/unit.

vii) CII Representative suggested that since the State has surplus power during off-peak hours, the industries may be incentivized to shift their load to the off-peak hours.

Member AERC, Shri S.C. Das opined that such a provision through Time of Day Tariffs already exist in the State for four categories of industrial consumers namely Oil & Coal, Tea, HT Industry I & HT Industry II.

viii) Prof. B.K. Roy, NIT Silchar questioned whether the Company carried out preventive maintenance as it was observed that Unit I of Stage II Myntriang SHEP was under forced shutdown from 20.11.2016 due to Thrust Pad bearing damage.

It was informed from APGCL that the damage was caused due to landslide in the area and mud rushing into the power station. It was stated that removing mud from the station itself took over two months and there was more than just bearing damage. However, proper precaution has been undertaken to ensure that such damage is not repeated. APGCL informed that the breakdown was due to natural calamity and unforeseen. It was further informed that preventive maintenance is practiced in the Company for smooth functioning of the generating units. In KLHEP, which is now over 10 years in operation, engineers from Japan visit the project regularly as a component of preventive maintenance.

Agenda No. 3 (iii): Presentation on Tariff Petition for FY 2018-19 by APDCL

There was a short Power Point presentation from APDCL on the revised Annual Revenue Requirement and tariff for FY 2018-19 along with true up for FY 2016-17 and Annual Performance Review for FY 2017-18. The following discussions took place during the course of the presentation:

i) Shri H. Sutodia, AIMO sought clarification on a few points. These along with the respective replies as noted below –
   a. Fixed charge collected from the consumers is meant to recover the infrastructure costs for supplying power. The infrastructure costs are likely to reduce over the years due to depreciation, etc. The fixed charge component is already high for the industries and whether any study is being done by the Discom to review the infrastructure cost with regard to the connected load of the consumers.
   b. MD, APDCL, Shri P. Gupta (IAS) informed that fixed charge levied by the Discom is not linked to the infrastructure and its expansion of the Company alone but rather consist of the Operation and maintenance charges including salary to its employees. Major chunk of the fixed cost almost 60% constitutes payment to generating units which is collected in two parts – fixed and variable.
   c. Whether minimum charges can be levied instead of separate fixed and consumption charges.
   d. APDCL replied that “Minimum Charge” is an old concept and most of the State utilities have done away with it. Minimum charges consisted of fixed charge and other charges like energy charge. As per Electricity Act 2003, tariffs must constitute of at least two charges – fixed and variable.
   e. The supervision and other charges are collected from the new consumers wanting to set up industries in the State under “Make in Assam”, despite the fact that the cost of materials are borne by the consumers themselves. Whether these supervision and other charges be done away with.
   f. MD, APDCL Shri P. Gupta (IAS) clarified that the supervision charge is a miscellaneous charge constituting 15% of the labour charge and these charges are not connected to material cost. Member, AERC, Shri Das further clarified that prior to 2005; supervision charge was 15% of the entire cost which was quite high, however, AERC stepped in and reduced this charge to 15% of labour cost only. He observed that by levying these charges, the Discom take the responsibility that the line has been properly constructed following the norms and safety standards.

g. Industries in the State, particularly tea and food processing units require to maintain a steady backup of spares and machineries so as to meet exigencies, whenever required. Whether there can there be a provision of additional connected load without affecting the fixed charges.
h. Shri P. Gupta (IAS) MD, APDCL informed that as per the new AERC Supply Code Regulations, 2017, the industries would be allowed to contract the demand as per their requirement irrespective of their connected load.
i. Hon'ble Member, AERC, Shri S.C. Das clarified that seasonal industries had to declare a minimum 65% of the connected load as contracted demand. But with notification of the AERC Supply Code Regulations, 2017, the industries may declare contracted demand as per their requirement, however; such demand cannot be more than the sanctioned connected load for the industry. He stated that the new Regulations may be downloaded from the official website of the Commission.

ii) Shri K. Medhi, NESSIA offered the following suggestions –
a. If the quality of power improves, a nominal and reasonable increase will be considered justified by the consumers as the price of all necessary commodities have risen over the years. Therefore, the Discom should make efforts to provide good quality, reliable power to its consumers.
b. From the tariff proposal, it can be seen that increase proposed in the fixed charge for industrial, commercial and domestic consumers are not uniform.
c. Load survey for the consumers is not conducted regularly and as such, the Discom is losing substantial revenue on account of fixed charge. The connected load of the consumers tend to increase over the years with increase in their electrical equipments, however, such increase is hardly intimated to the Discom. Although, the Discom give notices of voluntary load declaration from time to time, this may not be as effective as load survey.
d. The tariff for General Purpose consumers consisting of temples, mosque etc is already high. Due to this many organizations resort to unauthorized means of getting power instead of legal ways. Therefore, tariff for this category needs to be reviewed.
e. 90% of the meters in Jeevan Dhara category are either defective or not working and these need to be replaced.

Hon'ble Chairperson (Off.), AERC thanked the member for his suggestions.

Shri P. Gupta (IAS), MD, APDCL informed that tariff increase proposed for all categories is not uniform as in some categories tariff is already high.

Hon'ble Member AERC, Shri S.C. Das stated that the industrial sector is actually cross subsidizing the domestic consumers through higher tariffs. In fact, if voltage based tariff would have become applicable, tariffs for many industrial categories would have decreased as they were receiving power at a higher voltage causing low loss in the power network. However, such an arrangement would be a heavy burden to the domestic consumers and therefore, Commission follows the tariff policy while determining tariff.

iii) Ms S. Sarma, CII opined that voltage fluctuations in remote areas were severe and corrective measures need to be initiated in this regard.

Member AERC, Shri S.C. Das stated that infrastructure must be improved to encourage setting up of industries in rural areas. He opined that tariff determination based on voltage fluctuations would not be feasible, however, feeder separation of domestic and industry, initiated by the Company, should help improve the situation in rural areas considerably.

iv) Shri H. Sutodiya, AIMO suggested that the intimation regarding anticipated power failures should be given to the industrial units.

Principal Secretary, Power Government of Assam, Shri J. Baruah (IAS) suggested that this can be done for all IRCA consumers through email, mobile numbers.

v) Shri S. Agarwal, FINER gave the following suggestions:

a. The Company should give rebate on load factor, increase the rebate on power factor to encourage consumers for efficient power utilization and performance.
b. With the possibility of more industries coming into the State with *Advantage Assam*, newer categories for HT consumers must be introduced. Also, both LT and HT consumers should be encouraged to opt for receiving power at a higher voltage by providing incentives in tariff.

vi) Shri N. Sabikh, IEX stated that depending on the type of industry like continuous, seasonal, etc. tariff may be formulated in a way (by increasing/ decreasing the fixed charge and decreasing /increasing the energy charge) so that the average cost to the industry remains same and revenue expected to be recovered for the Discom also remains intact.

He complemented the Discom for managing their power portfolio effectively. The power purchase is 70-80% of the ARR and there is still scope of optimizing the same. IEX has developed a system which allows the Discom to optimize their power purchase on a day-ahead basis whether that power is from a State or Central generator. The discoms need to put in their quantum of power to buy into the system on a day ahead basis, and the most optimal power portfolio would be made available. Maharashtra, Bihar, Punjab are now trying to use this system to optimize their power purchase. He stated that although, it may not be possible to optimize the power purchase everyday, it can be done for a substantial period over the year, benefitting the discom by saving on its power purchase cost.

vii) Prof. B.K. Roy NIT, Silchar asked what the temporary rate for an agricultural consumer will be above 7.5 Hp.

It was informed that the consumer will come under HT temporary category.

viii) Ms S. Sarma, CII requested if an awareness campaign could be conducted on the functioning of the prepaid meters by the Discom. She offered that CII may also be a partner for the campaign.

The Discom agreed to the suggestion.

Agenda No 6: Promotion of Renewable Energy and RPO trajectory

A presentation was made by Shri N.K. Deka, Consultant (T), AERC on the RPO Regulations and its amendments notified by the Commission from time to time which is briefly discussed in the following paragraphs:

The Commission notified the AERC (RPO and its Compliance) Regulations, 2010 on 2nd November, 2010 fixing a trajectory for both solar and non-solar RPO compliance for FY 2010-11 up to FY 2014-15. Subsequently, the Commission amended the RPO Regulation, 2010 vide 1st Amendment notification dated 15th October, 2015 and provided a RPO trajectory for FY 2015-16 to FY 2018-19 keeping in mind the renewable resources available within the State and the views received from the obligated entities.

The Ministry of Power (MoP), GoI notified the new National Tariff Policy (NTP) dated 28.01.2016. and in light of the NTP, the Ministry of New & Renewable Energy (MNRE) issued a letter dated 11.02.2016 to the states requesting to develop Action plan for compliance of RPO upto 2022 and suggesting the SERCs to notify the RPO trajectory so as to reach 8% Solar and overall trajectory of 17% including Solar & Non-Solar by 2022.

In compliance of the National Tariff Policy and MNRE requests; the Commission initiated the process of revising the 2nd amendment of RPO trajectory. The above draft amendment Regulations were hosted on the Commission's website and Public Notice was issued in the newspapers for objections/ suggestions from stakeholders.

After carefully examining, the suggestions from public/utilities and availability of RE Resources within the state and considering the impact of revision of RPO on the retail tariffs, the Commission revised the RPO trajectory and notified the same vide 2nd amendment to RPO regulations, 2010 on 14th March, 2017 as below:

FY	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Non –Solar	3%	5%	6%	7%	8%	9%
Solar	1%	4%	5%	6%	7%	8%
Total	4%	9%	11%	13%	15%	17%

It may be mentioned here that on 22.07.2016, MNRE, GoI issued another guideline proposing a uniform Long-term trajectory of RPOs for Non-Solar & Solar Energy for FY 2016-17 to FY 2018-19 for all States/Union Territories, where it was proposed that 17% overall RPO may be achieved by FY 2018-19 itself. The same is shown in table below:

FY	2016-17	2017-18	2018-19
Non –Solar	8.75%	9.50%	10.25%
Solar	2.75%	4.75%	6.75%
Total	11.50%	14.25%	17.00%

As the Commission notified the revised RPO trajectory in accordance with NTP on 14th March, 2017 another revision within the year would have additional burden on the obligated entities. The matter was therefore, placed before the SAC for deliberation and advice.

Hon'ble Chairperson (Off.), AERC informed that the matter is under deliberation at the Forum of Regulators and it has been also proposed that the differentiation between solar and non-solar RPO be removed.

The following deliberations took place after the presentation:

i) MD, APDCL, Shri P. Gupta, IAS stated that it was becoming increasingly difficult to buy renewable power either through the exchanges and also through DEEP portal as bidders are not available. He stated that a number of renewable projects are under implementation within the state and until these projects are commissioned, there will be no option left but to buy Renewable Energy Certificates (RECs).

ii) Member AERC, Shri S.C Das stated that the matter has been placed before the State Government and it is now the State Government to give policy directives in this regard. The Commission has complied with the directives of the Government of India after taking the views of the stakeholders concerned and accordingly made the trajectory upto 2021-22.

iii) Shri S. Agarwal, FINER commented that RPO trajectory should be based on the available RE resources within the state. He observed that the tariff of the State is already high and increase in RPO trajectory may force the obligated entities to buy RECs which would further increase the tariff burden on the consumers. He also stated that trading of solar RECs have been kept on a hold by the Hon'ble Supreme Court due to pricing issues.

iv) Ms S. Sarma, CII stated that till such time the RE potential in the State is tapped to a certain extent, perhaps the RPO targets may be kept lower.

v) Chairperson (Off.) AERC, Shri D. Chakravarty explained that these are policy initiatives of the Government of India and every State is expected to follow the same irrespective of the present RE availability in the State. RECs have been introduced so that States not having RE potential/ availability can purchase these in the exchanges. He further observed that the Commission has to monitor compliance by the obligated entities in accordance with its Regulations.

vi) Shri N. Sibikhi, IEX stated that RPO compliance is a national initiative to improve the green portfolio. He observed that RPO is comparable to taxation to encourage and benefit renewable energy producers. He stated that the States have to decide whether to make or buy RE. RE producing potential differ across different States within the country and it is always economical to produce renewable power in States that have greater potential depending on the climatic conditions and natural resources available. Therefore, States not having RE potential or yet to develop adequate RE generating units may resort to buying RECs from the exchanges to meet their RPO. The REC market was developed for this reason. He stated that the Discoms throughout the nation, initially, were deferring buying RECs, however, they have now started buying RECs to meet the RPO shortfall to clear their backlogs. As such, the REC market has seen an upsurge in the previous year and he expressed apprehension that if the trend continues, the floor price for RECs may be discontinued.

vii) Shri S. Agarwal, FINER observed that although, the Discoms had the option of setting up renewable generation projects through developers, the Captive consumers had no option left but to buy RECs to meet their non solar obligations because they can set up rooftop solar plants, however, may not be able to set up non-solar projects. This would increase their cost of production and ultimately, the consumers would have to bear the cost.

viii) Shri N. Sibikhi, IEX stated that as the term RPO goes, Renewable Purchase is perceived as an Obligation rather than as a Responsibility. He observed that it may not be feasible for a small industry to set up a renewable generation unit; therefore buying RECs may be the only viable option.

ix) Shri S. Agarwal, FINER requested that RPO trajectory of other States may be studied vis -a- vis their availability before drawing the trajectory for Assam.

x) MD, AEGCL, Shri S.N. Kalita also requested that a detailed study may be done before deciding on the RPO trajectory.

xi) Shri K. Medhi, NESSIA asked regarding the solar potential of the State mentioned in the State Solar Policy and incentives available. it was informed by the Principal Secretary, Power, Shri J. Baruah, IAS that solar potential has been stated as 14000 MW and incentives to industries have also been provided. No incentive has been provided regarding grant of land for solar projects as most of the land available is fertile in nature.

Agenda No. 5: Any Other matter.

No other matter came up for discussion.

Chairperson (Off.), AERC assured the members that the tariff proposals of the utilities would be prudently scrutinized and the valuable suggestions offered by each stakeholder would be taken into account while determining tariffs for FY 2018- 19.

The meeting ended with vote of thanks from the Chair.

Sd/-

(D. Chakravarty)

Chairperson (Off.),

Assam Electricity Regulatory Commission

ANNEXURE –A

LIST OF MEMBERS, SPECIAL INVITEES & OFFICERS PRESENT

MEMBERS

1. Shri Dipak Chakravarty, Chairperson (Off.), AERC
2. Shri Subhash Chandra Das, Member, AERC
3. Shri Jishnu Baruah, IAS Principal Secretary, Power, Government of Assam and Chairman APDCL/AEGCL/APGCL
4. Shri Abhijit Sharma, Secretary. ABITA

   Shri Abhijit Kakati, MRK, ABITA
5. Shri Harsh Sutodiya, EC Member, AIMO
6. Shri J.N. Baruah, Board Member, AASSIA
7. Shri Saurabh Agarwala, Chairman, Power Committee, FINER

   Shri Saurabh Burakhi, FINER
8. Birendra Kr. Das, President, Grahak Suraksha Sanstha
9. Nitin Sabikhi, AUP, IEX
10. Ms. Shanta Sarma, CII, NE Chapter
11. Ms. Sushmita Priyadarshini, Associate Profesor, DCB Girl's College
12. Prof. B.K. Roy, HoD, Electrical, NIT, Silchar

SPECIAL INVITEES

1. Shri Puru Gupta, IAS, Managing Director, APDCL
2. Ms. Kalyani Baruah, Managing Director, APGCL
3. Shri Satyendra Nath Kalita, Managing Director, AEGCL
4. Shri Sailen Baruah, President, NESSIA
5. Shri Kumud Medhi, Secretary, NESSIA.

OFFICERS FROM APDCL

1. Shri Dilip Kr. Saikia,CGM / PP&D, APDCL
2. Shri Pankaj Kr. Bhuyan, CGM (COM), APDCL
3. Shri Binoy M Saikia, GM (TRC), APDCL
4. Shri Sanjib Goswami,GM(RE), APDCL
5. Shri Ramendra Choudhary, DGM(COM-T), APDCL

6. Shri Pradeep Kr. Baishya, AGM, APDCL
7. Shri Nilmadhab Deb,AM (F&A), APDCL

OFFICERS FROM AEGCL

1. Shri M.J. Saikia, CGM, AEGCL
2. Shri Suresh Kaimal, AGM (F&A)AEGCL
3. Shri G.K. Bhuyan, AGM, AEGCL
4. Shri Debasish Paul, AM(F&A), AEGCL
5. Shri Rupam Dhar, AO, AEGCL

OFFICERS FROM APGCL

1. Shri Anil Kr. Phukan, CGM (GEN), APGCL
2. Shri Meena B. Choudhary, GM, APGCL
3. Shri Ranjit Das, DM, APGCL
4. Shri A.K.S. Zaman, AM, APGCL

OFFICERS FROM AERC

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

CONSULTANTS FROM AERC:

1. Ms. P. Sharma, Sr. Consultant, AERC
2. Shri N.K. Deka, Consultant (Technical), AERC
3. Shri S. Tamuli, Consultant (I), AERC
4. Shri J. Bezbaruah, Consultant (II), AERC