



**ASSAM ELECTRICITY REGULATORY COMMISSION
(AERC)**

TARIFF ORDER

March 29, 2023

TRUE-UP for FY 2021-22,

APR for FY 2022-23, and

Revised ARR and

Tariff for FY 2023-24

FOR

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

Petition No. 17/2022

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List of Abbreviations

A&G	Administrative & General
ABC	Aerial Bunched Conductor
ABITA	Assam Branch of Indian Tea Association
ABT	Availability Based Tariff
ABP	Average Basic Pay
ABR	Average Billing Rate
ACoS	Average Cost of Supply
Act	The Electricity Act, 2003
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
ARR	Aggregate Revenue Requirement
APSEIP	Assam Power Sector Enhancement Investment Programme
APSIP	Assam Power Sector Investment Programme
APTEL	Appellate Tribunal for Electricity
ASEB	Assam State Electricity Board
AT&C	Aggregate Technical and Commercial
BPL	Below Poverty Line
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
DEEP	Discovery of Efficient Electricity Price
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
EE	Energy Efficiency
EHV	Extra High Voltage
EPC	Engineering Procurement & Construction
ERP	Enterprise Resource Planning
FINER	Federation of Industry & Commerce of North Eastern Region
FPPPA	Fuel Price and Power Purchase Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
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
IEX	Indian Energy Exchange
IOCL	Indian Oil Corporation Limited
IPDS	Integrated Power Development Scheme
ISTS	Inter-State Transmission System
IT	Information Technology
IWC/loWC	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
LED	Light Emitting Diode
LOA	Letter of Award
LT	Low Tension
LV	Low Voltage
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
PPA	Power Purchase Agreement
PTCIL	PTC India Limited
R&M	Repairs and Maintenance
RAPDRP	Restructured Accelerated Power Development & Reforms Programme
REC	Renewable Energy Certificate
RDSS	Revamped Distribution Sector Scheme
RGGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
ROE	Return on Equity
ROW	Right of Way
RPO	Renewable Purchase Obligation
Rs.	Indian Rupees
SAC	State Advisory Committee
SAIDI	System Average Interruption Duration Index
SBI MCLR	State Bank of India Marginal Cost of Lending Rate
S/C	Single Circuit
SECI	Solar Energy Corporation of India Limited
SHEP	Small Hydro Electric Project
SLDC	State Load Dispatch Centre
SOP	Standards of Performance

SPV	Special Purpose Vehicle
STU	State Transmission Utility
TBCB	Tariff Based Competitive Bidding
TOD	Time of Day
TVS	Technical Validation Session
UDAY	Ujwal DISCOM Assurance Yojana
UI	Unscheduled Interchange
VCoS	Voltage-wise Cost of Supply
WB	The World Bank
WPI	Wholesale Price Index

ASSAM ELECTRICITY REGULATORY COMMISSION

Guwahati

Present

Shri K. S. Krishna, Chairperson

Shri S. N. Kalita, Member

Shri A. Bhattacharyya, Member

Petition No. 17/2022

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

ORDER

(Passed on March 29, 2023)

- (1) APDCL filed a Petition for approval of True Up for FY 2021-22, APR for FY 2022-23, Revised ARR and Tariff for FY 2023-24 in November 2022. The same was registered as Petition No 17/2022.
- (2) The Commission held an Admissibility Hearing on December 15, 2022 and admitted the Petitions to furnish the additional data and clarifications, as sought vide letter dated December 13, 2022.
- (3) 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 newspapers to ensure due public participation.
- (4) Accordingly, a Public Notice was issued by APDCL inviting objections/suggestions from stakeholders to be submitted on or before January 21, 2023. The notice was published in five (5) leading newspapers of the State, and short notices were also published in five (5) of the leading newspapers of the State, as shown in the Table below:

Date	Name of Newspaper	Content Published
20.12.2022	The Assam Tribune	Public Notice in English
	The Times of India	Public Notice in English
	The Sentinel	Public Notice in English
21.12.2022	Amar Asom	Public Notice in Assamese
	Dainik Janambhumi	Public Notice in Assamese
23.12.2022	Asomiya Pratidin	Short Notice in Assamese
	Dainik Jugasankhya	Short Notice in Bangla
	Purbanchal Prahari	Short Notice in Hindi
	Bodosa	Short Notice in Bodo
	Thekar	Short Notice in Karbi

- (5) A copy of the Petition and other relevant documents were also made available to the consumers and other interested Parties at the office of the Managing Director of APDCL, and offices of the Deputy General Manager of each Electrical Circle of APDCL. A copy of the Petition was also made available on the websites of the Commission and APDCL.
- (6) In response to the Commission's letter dated December 13, 2022, APDCL submitted their replies on December 30, 2022.
- (7) The Commission observed that there were some inconsistencies and discrepancies in the replies submitted by APDCL. In order to clarify the same, a Technical Validation Session (TVS) was conducted on January 12, 2023. The Commission sought more clarifications on the Petition from APDCL vide letter dated January 12, 2023 and the replies were submitted by APDCL on January 21, 2023.
- (8) 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 9, 2023 at Bidyut Niyamak Bhawan, Six Mile, Guwahati.
- (9) The Commission received written suggestions and objections from fourteen (14) 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. A News Paper notice was also published inviting participation from the general public as well as the Respondents. The Hearing was held at Bidyut Niyamak Bhawan, Six Mile, Guwahati on

February 28, 2023 as scheduled. All stakeholders/respondents who participated in the Hearing were given the opportunity to express their views on the Petitions. The details are discussed in the relevant Chapters of this Tariff Order.

- (10) 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 respondents/stakeholders and all other relevant materials on record, has carried out the True-up for FY 2021-22, APR for FY 2022-23, approval of revised ARR and determination of distribution and retail supply tariff for FY 2023-24, as detailed in subsequent Chapters of this Order.
- (11) Before implementation of this Order, the Commission directs APDCL to publish a Public Notice intimating the revised distribution and retail supply tariff in English and Vernacular newspapers and on the website of APDCL.
- (12) The approved Retail Supply Tariffs, Wheeling Charges and Cross-Subsidy Surcharge for FY 2023-24 shall be effective from April 1, 2023 and shall continue until replaced by another Order by the Commission.
- (13) Accordingly, the Petition No.17 /2022 stands disposed of.

Sd/-
(A. Bhattacharyya)
Member, AERC

Sd/-
(S.N. Kalita)
Member, AERC

Sd/-
(K.S Krishna)
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 EA 2003 (36 of 2003) and to exercise the functions conferred on it under Section 61, 62 and 86 of the Act from June 10, 2003.

1.2 Tariff related Functions of the Commission

- 1.2.1 Under Section 86 of the Act, the Commission has the following tariff related functions:
- (a) To determine the tariff for electricity, wholesale, bulk or retail, as the case may be;
 - (b) To regulate power purchase and procurement process of the distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
 - (c) To promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act;
- 1.2.2 Under Section 61 of the Act in the determination of tariffs, the Commission is to be guided by the following:
- (a) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;

- (b) That the electricity generation, transmission, distribution and supply are conducted on commercial principles;
- (c) That factors which would encourage efficiency, economical use of the resources, good performance, optimum investments, and other matters which the State Commission considers appropriate for the purpose of this Act;
- (d) The interests of the consumers are safeguarded and at the same time, the consumers pay for the use of electricity in a reasonable manner based on their customer category cost of supply;
- (e) That the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency and 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 the Act).

1.3 Background

1.3.1 In pursuance of Notification Memo No. PEL151/2003/Pt./165 dated December 10, 2004 of the Government of Assam, three Distribution Companies were formed as a successor to the ASEB. Vide subsequent Notification No. PEL.41/2006/199 dated May 13, 2009, all these three Distribution Companies

were merged into one and in accordance with the Assam State Reform (Transfer and merger of Distribution Functions and undertakings) Scheme, 2009 and Certificate of Incorporation dated October 23, 2009, the present Distribution Company, viz., Assam Power Distribution Company Limited (APDCL) got formed.

- 1.3.2 Presently, APDCL is undertaking all the functions as a Distribution Licensee within the State of Assam.

1.4 Multi Year Tariff Regulations, 2018

- 1.4.1 The Commission, in exercise of the powers conferred under Section 61 read with Section 181(2) (zd) of the Act, notified the Assam Electricity Regulatory Commission (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2018 on June 28, 2018 and Amendments thereof (hereinafter referred as “MYT Regulations, 2018”). These Regulations are applicable for the determination of Tariff for Generation, Transmission, SLDC, Wheeling and Retail Supply for the Control Period of three financial years from April 1, 2019 onwards up to March 31, 2022.
- 1.4.2 Regulation 4.2 of the MYT Regulations, 2018, specifies the MYT framework for the Control Period from FY 2019-20 to FY 2021-22, as reproduced below:

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

...

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

(vii) True up of the past years based on audited annual accounts of the licensees

and the Generation companies.

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

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

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

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

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

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

1.5 Multi Year Tariff Regulations, 2021

- 1.5.1 The Commission, in exercise of the powers conferred under Section 61 read with Section 181(2) (zd) of the Act, has notified the AERC (Terms and Conditions for determination of Multi Year Tariff) Regulations, 2021 (herein after referred as “the MYT Regulations, 2021”) on September 18, 2021. These Regulations are applicable for the determination of Tariff for Generation, Transmission, SLDC,

Wheeling and Retail Supply for the Control Period of three financial years from April 1, 2022 onwards up to March 31, 2025. These Regulations are applicable to all existing and future Generating Companies, Transmission Licensees, and Distribution Licensees within the State of Assam.

1.5.2 Regulation 4.2 of the MYT Regulations, 2021, specifies the MYT framework for the Control Period from FY 2022-23 to FY 2024-25, as reproduced below:

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

(i) Before commencement of Control Period, a forecast of the Aggregate Revenue Requirement and expected revenue from existing tariff and charges shall be submitted by the applicant and approved by the Commission;

(ii) A detailed Capital Investment Plan for each year of the Control Period, shall be submitted by the applicant for the Commission's approval;

(iii) The applicant shall submit operating norms and trajectories of performance parameters for each year of the Control Period, for the Commission's approval;

(iv) The applicant shall submit the forecast of Aggregate Revenue Requirement and expected revenue from existing tariff for each year of the Control Period, and the Commission shall approve the tariff for Generating Companies, SLDC, Transmission Licensee, Distribution Wheeling Business and Retail Supply Business, for each year of the Control Period;

(v) In its tariff petition, a generating company shall submit information to support the determination of tariff for each generating station

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

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

the Generation companies.

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

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

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

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

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

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

1.6 Procedural History

- 1.6.1 APDCL is required to file an application for true-up for previous year, i.e., FY 2021-22, as per the MYT Regulations, 2018, and APR of FY 2022-23, revised ARR and tariff for ensuing year, i.e., FY 2023-24, as per the MYT Regulations,

2021, not less than 120 days before the close of the current year.

- 1.6.2 APDCL filed its Petition for approval of True-up for FY 2021-22, APR for FY 2022-23, Revised ARR, and tariff for FY 2023-24 (Petition No. 17/2022) on November 30 2022. The Commission sought additional data and clarifications on the MYT Petition vide letter dated December 13, 2022.
- 1.6.3 The Commission held an Admissibility Hearing on December 15, 2022. Thereafter, in accordance with Section 64 of the EA 2003, the Commission directed APDCL to publish a summary of the ARR and Tariff filings in local dailies to ensure due public participation. A copy of the Petition and other relevant documents were also made available to the consumers and other interested Parties at the office of the Managing Director of APDCL, and offices of the Deputy General Manager of each circle of APDCL. A copy of the Petition was also made available on the websites of the Commission (www.aerc.gov.in) and APDCL (www.apdcl.org)
- 1.6.4 Accordingly, a Public Notice was issued by APDCL inviting objections/suggestions from objectors to be submitted on or before January 21, 2023. The notice was published in five (5) leading newspapers of the State, and short notice was published in five (5) of the leading newspapers of the State, as shown in the Table below:

Date	Name of Newspaper	Content Published
20.12.2022	The Assam Tribune	Public Notice in English
	The Times of India	Public Notice in English
	The Sentinel	Public Notice in English
21.12.2022	Amar Asom	Public Notice in Assamese
	Dainik Janambhumi	Public Notice in Assamese
23.12.2021	Asomiya Pratidin	Short Notice in Assamese
	Dainik Jugasankhya	Short Notice in Bangla
	Purbanchal Prahari	Short Notice in Hindi
	Bodosa	Short Notice in Bodo
	Thekar	Short Notice in Karbi

- 1.6.5 The replies to the queries were submitted by APDCL on December 30, 2022.
- 1.6.6 The Commission observed that there were some inconsistencies and discrepancies in the replies submitted by APDCL. In order to clarify the same, a Technical Validation Session (TVS) was conducted on January 12, 2023. The Commission sought more clarifications on the Petition from APDCL vide letter dated January 12, 2023 and replies were submitted by APDCL on February 21, 2023.
- 1.6.7 The Commission received suggestions and objections from fourteen (14) stakeholders on the Petitions filed by APDCL. 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. The stakeholders were notified about the place, date and time of Hearing, to enable them to take part in the Hearing. The Hearing was held at Bidyut Niyamak Bhawan, Six Mile, Guwahati, on February 28, 2023 as scheduled. All stakeholders/respondents who participated in the Hearing were given the opportunity to express their views on the Petitions.
- 1.6.8 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.

1.7 The 31st and 32nd Meetings of State Advisory Committee

- 1.7.1 Meetings of the State Advisory Committee (SAC) (constituted under Section 87 of the Act) were convened on January 30, 2023 and February 9, 2023. During the 31st SAC meeting held on January 30, 2023, the tariff Petitions filed by AEGCL, APGCL, and SLDC for FY 2023-24 were discussed. And during the 32nd SAC meeting held on February 9, 2023, the Members discussed issues related to the Tariff Petition filed by APDCL for FY 2023-24.
- 1.7.2 The minutes of the SAC meetings is appended to this order as **Annexure 1 and Annexure 2**.

2 Summary of APDCL's Petition

2.1 Background

- 2.1.1 APDCL submitted the Petition on November 30, 2022 seeking approval for True up for FY 2021-22, APR for FY 2022-23, Revised ARR for FY 2023-24, and Tariff for FY 2023-24.

2.2 True-up for FY 2021-22

- 2.2.1 APDCL submitted True-up for FY 2021-22 based on the statement of accounts duly audited by the Statutory Auditor. The summary of Aggregate Revenue Requirement and Revenue Gap/(Surplus) claimed by APDCL for FY 2021-22 is shown in the following Table:

Table 1: True Up for FY 2021-22 as submitted by APDCL (Rs. Crore)

Sl. No.	Particulars	Approved	APDCL Submission
1	Cost of power purchase	5444.21	5917.01
2	Operation & Maintenance Expenses	1069.76	1454.76
2.1	Employee Cost	813.58	1156.19
2.2	Repair & Maintenance	210.62	246.02
2.3	Administrative & General Expenses	45.56	52.56
3	Depreciation	16.65	40.02
4	Interest and Finance Charge	24.31	9.23
5	Interest on Working Capital	5.11	0.71
6	Other Debits incl. Provision for Bad Debt	22.1	27.19
7	Interest on Consumer security deposit	38.06	52.68
8	Exceptional Items, if any		
9	Sub total (1+2+(3 to 8))	6620.2	7501.62
10	Return on Equity	75.91	95.03
11	Total Expenditure (9 to 10)	6696.12	7596.65
12	Less: Non-Tariff Income	395.62	498.51
13	Sharing of efficiency gain/(losses)		

Sl. No.	Particulars	Approved	APDCL Submission
	a) Reduction in Power Purchase cost due to incremental losses		-77.82
	b) Sharing of gains/(losses) on account of O&M expenses		-11.9
14	Aggregate Revenue Requirements (11-12+13)	6300.49	7008.41
15	Revenue with approved Tariff (including Targeted Subsidy)	5668.98	6083.55
16	Other Income (Consumer Related)	356.82	458.22
17	Total Revenue Before Other Subsidy (15+16)	6025.8	6541.77
18	Other subsidy/Revenue Grant		
	a. Tariff subsidy on Power purchase	400	363
	b. UDAY OFR		
	c. Recognition of Deferred Grant		
	d. Waiver of Fixed charge for C&I consumers		
19	Total Revenue after subsidy	6425.8	6904.77
20	Surplus(+)/Shortfall(-) Standalone FY 21-22	125.31	-103.65
21	True up adjustment		
	Differential Revenue Gap/(Surplus) from True up for FY 2019-20	87.03	87.03
	Net Carrying Cost	38.28	38.28
	Sub-total (21): True Up adjustment	125.31	125.31
22	Gross Surplus(+)/Shortfall(-)	0	-228.96

2.3 Annual Performance Review (APR) for FY 2022-23

- 2.3.1 APDCL submitted the APR for FY 2022-23, based on the actuals of the first half (H1) of the year and projections for the second half (H2) of the year, as shown in the table below:

Table 2: APR for FY 2022-23 as submitted by APDCL (Rs. Crore)

Sl. No.	Particulars	Approved	APDCL Submission
1	Cost of power purchase	6031.15	8039.05
2	Operation & Maintenance Expenses	1190.36	1192.47
2.1	Employee Cost	835.92	866.81
2.2	Repair & Maintenance	278.52	267.97
2.3	Administrative & General Expenses	75.92	57.7
3	Depreciation	46.82	101.29
4	Interest and Finance Charge	21.99	17.53
5	Interest on Working Capital	8.85	10.77
6	Other Debits incl. Provision for Bad Debt	16.6	13.6
7	Interest on Consumer security deposit	30.17	52.68
8	Exceptional Items, if any		
9	Sub total (1+2+(3 to 8))	7345.94	9427.39
10	Return on Equity	193.09	165.78
11	Total Expenditure (9 to 10)	7539.03	9593.17
12	Less Non Tariff Income	418.21	406.22
13	Sharing of efficiency gain/(losses)	-	-
	a) Reduction in Power Purchase cost due to incremental losses		
	b) Sharing of gains/(losses) on account of O&M expenses		
14	Aggregate Revenue Requirements (11-12+13)	7120.82	9186.95
15	Revenue with approved Tariff (including Targeted Subsidy)	6979.96	7505.89
16	Other Income (Consumer Related)	302.32	684.1
17	Total Revenue Before Other Subsidy (15+16)	7282.28	8190
18	Other subsidy/Revenue Grant		
	a. Tariff subsidy on Power purchase	400	190
19	Total Revenue after subsidy	7682.28	8380

Sl. No.	Particulars	Approved	APDCL Submission
20	Surplus(+)/Shortfall(-) Standalone FY 22-23	561.46	-806.95
21	True up adjustment		
	Differential Revenue Gap/(Surplus) from True up for FY 2020-21	457.2	457.2
	Net Carrying Cost	104.26	104.26
	Sub-total (21): True Up adjustment	561.46	561.46
22	Gross Surplus(+)/Shortfall(-)	0	-1368.41

2.4 Aggregate Revenue Requirement for FY 2023-24

2.4.1 APDCL has projected the ARR for FY 2023-24 as detailed in the Table below:

Table 3: ARR for FY 2023-24 as submitted by APDCL (Rs. Crore)

Sl. No.	Particulars	Amount
1	Power Purchase Expenses	8,348.45
2	O&M Expenses	1,296.41
	a) Employee Expenses	919.54
	b) R&M Expenses	312.13
	c) A&G Expenses	64.74
3	Depreciation	143.63
4	Interest and Finance Charges	7.18
5	Interest on Working Capital	27.01
6	Interest on CSD	52.68
7	Return on Equity	212.46
8	Other Debits, incl. Provisioning for Bad Debts	6.8
9	Total Expenditure	10,095.02
10	Less: Non-Tariff Income	384.99
11	Less: Other Income	710.03
12	Aggregate Revenue Requirement	8,999.60

2.4.2 APDCL has thus estimated the total Revenue Gap as shown in the Table below:

Table 4: Revenue Gap as projected by APDCL till FY 2023-24 (Rs. Crore)

Sl.No	Particulars	Rate of Interest	Amount (Rs. Crore)
1	Revenue Gap after true-up for FY 2021-22		228.96
2	Carrying/(Holding) cost for FY 2021-22 (half Year)	10.00%	22.9
3	Carrying/(Holding) cost for FY 2022-23 (full Year)	10.00%	22.9
4	Carrying/(Holding) cost for FY 2023-24 (half Year)	10.00%	22.9
5	Total carrying cost		68.69
6	Total Revenue Gap for FY 2021-22		297.64
7	Revenue Gap after APR of FY 2022-23		1368.41
8	Carrying/(Holding) cost for FY 2022-23 (half Year)	10.00%	136.84
9	Carrying/(Holding) cost for FY 2023-24 (half Year)	10.00%	136.84
10	Total carrying cost		273.68
11	Total Revenue Gap for FY 2022-23		1642.09
12	Aggregate Revenue Requirement for FY 2023-24		8,999.60
13	Cumulative Revenue requirement for FY 2023-24		10,939.34

- 2.4.3 APDCL proposed retail sale of 9,738 MU during FY 2023-24. Thus, average cost of supply to recover entire ARR of Rs. 10,939.34 Crore during FY 2023-24 will be Rs. 11.23 per unit.
- 2.4.4 APDCL submitted that recovery of entire amount will lead to increase of existing retail tariff by 28% on average over approved cost of supply.
- 2.4.5 APDCL submitted that with the prevailing socio-economic structure, consumer profile of Assam is heavily loaded (more than 93%) with domestic consumers. Such adverse consumer mix has already resulted in significantly higher tariff for a miniscule group of industrial/ commercial consumers. The same is already creating hurdle in the way of industrialization in the state of Assam. However, being sensitive to consumers so as to avoid sudden tariff shock, amount pertaining to APR for FY 2022-23 with associated carrying cost is not claimed by

APDCL and is proposing the following recovery as the revenue gap of the licensee.

Table 5: Revenue Gap claimed by APDCL for FY 2023-24 (Rs. Crore)

Sl.no	Particulars	Revenue Gap
1	A. Standalone Aggregate Revenue Requirement for FY 2023-24	8,999.60
2	B. True up for FY 2021-22	
3	i. Principal amount	228.96
4	ii. Carrying Cost	45.79
	Sub-total (B)::	274.75
	Grand total (A+B)::	9,274.35

2.4.6 APDCL submitted that with this proposed recovery of the reduced amount of Rs. 9274.35 Crore will provide relief by around 15% against the gross required amount

2.5 Prayers of APDCL

2.5.1 APDCL, in its Petition, has prayed as reproduced below:

- 1. To admit the petition for True-Up of ARR for FY 2021-22.*
- 2. To approve the amount of revenue gap on True-Up of ARR for FY 2021-22.*
- 3. To admit the petition for Annual Performance Review for FY 2022-23.*
- 4. To approve the amount of revenue gap for Annual Performance Review for FY 2022-23.*
- 5. To admit the petition for Annual Revenue Requirement for FY 2023-24.*
- 6. To approve the amount of Aggregate Revenue Requirement for FY 2023-24.*
- 7. To condone any inadvertent omissions/ errors/ shortcomings and permit the petitioner to add/ change/ modify/ amend this filing and make further submissions as may be required at a future date*
- 8. To allow further submissions, addition and alteration to this petition as may be necessitated from time to time*
- 9. Treat the filing as complete in view of substantial compliance as also the specific requests for waivers with justification placed on record*
- 10. To grant any other relief as the Hon'ble Commission may consider appropriate*
- 11. And pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case in the interest of justice.*

3 Brief Summary of the Stakeholders' Comments, Response of APDCL and Commission's View

3.1.1 The Commission received objections/suggestions from the following Fourteen (14) stakeholders on the Petition filed by APDCL.

Sl. No.	Name of objector
1	All Assam Electricity Consumers Association (AAECA)
2.	Assam Branch of India Tea Association (ABITA)
3.	All India Manufacturers Organisation, Assam State Board (AIMO)
4.	Assam Oxygen Manufacturers Association (AOMA)
5.	ATC Telecom Infrastructure Private Limited (ATCTIPL)
6.	Bharti Airtel Limited (Airtel)
7.	Cellular Operators Association of India (COAI)
8.	Consumer Advocacy Cell (CAC)
9.	Digital Infrastructure Providers Association (DIPA)
10.	Federation of Industries and Commerce of North Eastern Region (FINER)
11.	Garrison Engineer, Narengi Military Station (GE, Narengi)
12	Garrison Engineer (AF), Borjhar (GE, Borjhar)
13.	Reliance Jio Infocomm Limited (RJIL)
14.	Summit Digital Infrastructure Limited (SDIL)

3.1.2 APDCL 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 Respondents 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 Hearing at the Bidyut Niyamak Bhawan, Six Mile, Guwahati on February 28, 2023.

3.1.5 The respondents attended the Hearing and submitted their views/ suggestions.

In addition to the above respondents, North Eastern Tea Association (NETA), Raijor Dal (RD) made written submissions and Aam Aadmi Party (AAP) made oral submissions on APDCL's Petition during the Public Hearing.

- 3.1.6 All the written representations submitted to the Commission and the oral submission made before the Commission in the Hearing and the responses of APDCL have been carefully considered while issuing this Tariff Order.
- 3.1.7 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 objectors are discussed below along with the response of the Petitioner (APDCL) and views of the Commission.
- 3.1.8 While all the objections/suggestions have been given due consideration by the Commission, only major responses/objections received on the Petitions and also those raised during the course of Hearing have been grouped and addressed issue-wise, in order to avoid repetition.

Issue 1: Energy Sale & projection

Stakeholders' Comments

ABITA observed that for FY 2021-22, there is 14% higher than the actual sales in FY 2020-21. ABITA submitted that sales in majority of the categories increased by more than 15% ABITA requested the Commission to review the sales in those categories which have shown increase beyond 20%, like General purpose (21%), Commercial (21%), Public Water Works (34%), etc. ABITA also requested the Commission to direct APDCL to submit actual category-wise revenue and check if the average tariff recorded in the accounts are in line with the approved tariffs.

ABITA further observed that APDCL has high sales projections for FY 2022-23 and FY 2023-24. ABITA pointed out that the Petitioner has not considered any reduction/ savings accrued on account of demand side measures such as distribution of LED appliances, etc. in the State. ABITA requested the Commission not to consider the erroneous projections of APDCL

Reply of APDCL

APDCL submitted that Increase in consumption in recent years is a reality due to

installation of adequate infrastructure under various ongoing schemes/ programmes. Therefore, consumption is going to increase with reduction in system constraints on availability of adequate infrastructure. The petitioner stated that impact of DSM initiatives are factorised by default with consideration of reduced quantum for projections. Due care has also been taken in estimation so as to safeguard interest of all stakeholders. APDCL requested the Commission to consider the submission of the petitioner.

Commission's View

Noted. The category-wise sales approved by the Commission for FY 2021-22 and FY 2023-24 are detailed in the relevant Chapter of this Order.

Issue 2: Distribution loss

Stakeholders' Comments

FINER & ABITA submitted that APDCL recorded distribution loss of 16.95% for FY 2021-22 which is not only more than 15% approved by the Commission but even more than the target set for FY 2018-19. ABITA submitted that the justifications given by APDCL against the underachievement are not tenable. The respondent highlighted that there has been an increase in number of consumers through various schemes such as RGGVY/SAUBHAGYA scheme. However, coupled with these schemes, technological and infrastructure improvement-oriented schemes under RAPDRP and IPDS have supported the distribution utilities in achieving substantial technical and commercial loss reduction. The respondents highlighted that APDCL has committed to AT&C loss target of 15% by end of FY 2019-20 as part of UDAY scheme. Therefore, the respondents requested the Commission to maintain the loss target of 15% for FY 2021-22 and submitted that further relaxation in the target for distribution loss would result in slackness on the part of APDCL and burden the consumers with undue costs. FINER requested the Commission to apply "Power to remove difficulties" under Regulation 113 of the MYT Regulations, 2018 and not implement the mechanism of sharing of losses on account of controllable parameters, to protect the interests of consumers.

CAC submitted that APDCL has agreed to provide LT electrical connection to consumers having 30 KVA without any HT transformer which would add to further AT&C losses in the future. CAC suggested that APDCL must take up a system improvement scheme embracing the LT system of both urban and rural sectors. CAC further suggested that the

local Panchayats may be allowed to collect the bills from the consumers under its territorial jurisdiction and fund such projects in rural areas. CAC also submitted that the panchayats may be engaged in preventing hooking and theft of electricity.

NETA observed that the Petitioner's distribution loss is one of the highest in the country and to mitigate the same, additional power is procured at a higher cost than the approved quantum and budget. NETA stated that control and responsibility over this Distribution loss, solely, fully and completely lies in the hands of the Petitioner and therefore, the consumers should not be penalised with undue tariff hike.

Reply of APDCL

APDCL submitted that being a prudent utility, the petitioner is making continuous efforts to ensure quality and reliable power to its valued consumers with optimal use of its limited resources in right earnest. Implementation of UDAY was significantly affected by subsequent roll out of universal household electrification programme SAUBHAGYA. The petitioner stated that the loss trajectory has been proposed in line with approved action plan under RDSS.

Replying to CAC submissions, APDCL submitted that metering of all nodal points vis-à-vis proper energy auditing are one of the prime parameters under RDSS and the same is under implementation. The petitioner informed that various measures are already in place to take care of the collection aspects. One of the major and positive innovation in this aspect was engagement of pre-paid wallet-based collection agents.

APDCL further submitted that loss due to inefficiency has to be absorbed by APDCL as per the Regulations and requested the Commission to consider submission of the petitioner taking due cognizance to ground realities.

Commission's View

Distribution Losses are a controllable parameter. The Commission has considered the approved Distribution Loss level, and disallowed the excess power purchase cost in the true-up of FY 2021-22 as per the MYT Regulations, 2018.

Issue 3: Power Purchase

Stakeholders' Comments

ABITA observed that the Petitioner claims to have increased sales by 14% due to efficient

billing, and on the other hand, it procures 12% more power for exporting it outside Assam with a loss of Rs 150 Cr. A huge 781 Cr spent on short term power procurement from IEX at a steep rate of Rs 6.14/kWh needs to be analysed. ABITA requested the Commission to direct the Petitioner for planning its power procurement in advance and undertake procurement through DEEP portal to ensure that short-term power is procured at competitive rates. Further, ABITA requested the Commission to disallow higher power purchase costs on account of poor purchase & sales planning, high seasonal export, high distribution loss and high average rate of power purchase.

FINER observed that the Petitioner has incurred Rs. 2.85 Crore towards Late Payment Surcharge (termed as Delayed Payment Surcharge in the Audited Accounts). The respondent requested the Commission to direct the petitioner to furnish the detailed description of Late payment surcharge as incurred. The respondent further observed that the Petitioner during FY 2021-22 has procured 1206 MUs of power from IEX (Short term) at an average rate of Rs. 6.185 / unit against the Commission approved Rs. 3.256 / unit (for 266 Mus). Further, despite having adequate long term tied up capacity of APDCL with gencos, the petitioner is procuring expensive power on short term basis. At one end, the petitioner is exporting Seasonal power of 1,015 Mus at Rs. 3.47/ unit, and on the other, is procuring short term power at Rs. 6.185/ unit. The respondent requested the Commission to conduct a prudence check on the power procurement plan of the petitioner.

FINER further observed that the petitioner has estimated Rs. 1,896.64 Cr for procuring 3,090.37 MUs from NTPC Bongaigaon TPS, which translates to Rs. 6.14/kWh in FY 2023-24. This indicates that the Utility expects to fulfil around 23% of power requirement from BTPS. FINER mentioned that the petitions pertaining to tariff is pending adjudication before CERC and the rate of BTPS is expected to reduce by Rs. 1.2/ kWh to Rs. 1.5/kWh. FINER requested the Commission to take a note of the same and pass on the relaxation to the consumers of Assam after the ruling of Hon'ble CERC.

CAC submitted that APGCL and CPSUs are the major energy suppliers of APDCL. Although, APGCL supplies the cheapest power to APDCL, however, little efforts have been made for addition of generation capacity of APGCL. APGCL supplied a mere 12.08% and 16.7% of APDCL's requirement in 20-21 and 21-22. APDCL purchased power at high rates from Doyang at Rs 11.88/unit and NVVNL(Coal) supplied at Rs. 37.519 /unit. Against a provision of 265.96 MU to be procured from IEX @ Rs 3.256/unit, 1206.23 MU were purchased @ Rs 6.185 / unit. CAC submitted that seasonal export rose

to 1014.76 MU from the planned 579 MU at an average sale price of 3.475/unit against the average power purchase cost of 4.19/unit. Thus, CAC observed that an effective mechanism to monitor the power purchase plan is required and APDCL should also update its software for monitoring.

AAECA submitted that for ARR of FY 2023-24, the petitioner has projected higher power purchase by Rs 1984.93 than approved. AAECA registered its objection that the petitioner has been procuring 24% of the total power from costly sources during FY 2022-23.

During the oral submissions, AAP expressed concern on the increasing power purchase cost which is the major component of expenditure for the petitioner. AAP requested the Commission to constitute a committee or set up an effective mechanism to monitor power purchase made by the petitioner.

Reply of APDCL

APDCL submitted that typical demand supply position of Assam necessitates additional procurement during the evening peak hours (around 6 hours a day) throughout the year up to the extent of around 350 MW. Market dependence for ~ 20% of demand exposes APDCL to both availability as well as price volatilities. Meanwhile, demand of electricity is experiencing massive growth with restoration of all economic activities after almost two years of COVID disruptions. APDCL informed that the Ministry of Power had to intervene through CERC to reduce the ceiling price of energy exchange at Rs. 12 per unit from Rs. 20 to put some respite. The petitioner further informed that there is no alternative but to procure from open market to meet the demand.

The petitioner submitted that the rate of power from NTPC Bongaigaon was negotiated and it came down significantly from Rs. 6.75 during FY 21 to Rs. 5.69 during FY 22. Some other adjustments are also being explored.

Commission's View

The Commission has trued up the power purchase cost based on the Audited Accounts and prudence check. The Delayed Payment Charges incurred by APDCL have been disallowed in the true-up for FY 2021-22.

The detailed analysis of power purchase expenses is elaborated in the relevant Chapters of this Order. Any change in power purchase rates would be taken care of in the truing up

exercise for that respective year.

Directive for optimisation of power purchase cost has been issued in this order as desired by the respondents.

Issue 4: Sharing of gain / (Loss) on account of excess power purchase

Stakeholders' Comments

FINER highlighted that as per Tariff regulations 2018, Distribution losses are categorized as controllable factors and provides the mechanism for sharing of loss on account of controllable parameters. FINER observed that because of inefficiencies of the petitioner, the distribution losses have rose to 16.95% and more energy to the extent of 124 MUs had to be purchased due to higher distribution losses. Stating the Orissa Electricity Regulatory Commission (Terms and Condition for determination of Wheeling Tariff and Retails Supply Tariff) Regulations, 2014; FINER requested the Commission to apply "Power to remove difficulties" to disallow the mechanism of sharing of losses on account of controllable parameters in order to protect the interest of the consumers

Reply of APDCL

The petitioner submitted that sharing of efficiency gain and losses is in strict adherence to the governing regulations.

Commission's View

The Commission has approved sharing of gains/ losses in case of controllable parameters including distribution loss in the true-up of FY 2021-22 in accordance with the MYT Regulations, 2018 and the detailed ruling of the Commission is available in Chapter 4 of this Order.

Issue 5: Energy Balance

Stakeholders' Comments

ABITA submitted that APDCL has not been able to achieve the target distribution losses, and claimed power purchase requirement considering the actual distribution losses. The Respondent requested the Commission that the energy requirement may be derived considering the approved distribution loss levels only.

Reply of APDCL

The petitioner requested the Commission not to consider the plea of respondent.

Commission's View

The Commission has considered energy requirement at approved distribution loss as discussed in the relevant chapters of this Order.

Issue 6: O& M Expenses

Stakeholders' comments

FINER submitted that for FY 2021-22, the petitioner is claiming higher O&M Expenses to what it has incurred in actual which is reflected in the audited balance sheet of the petitioner. The respondent further submitted despite allowing higher expenses as compared to what was incurred, the Petitioner is continuously failing to achieve the desired operational performance. FINER requested the Commission to allow the lower actual and audited O&M expenses in the interest of the consumers.

Regarding Rs 337.62 Cr towards provision of DCRG under NPS, the respondent submitted that the Petitioner's claim is not within the ambit of Tariff regulations, 2018. Further, it was submitted that such liability is expected to be discharged over a period of time and it would be a prudent exercise to allow the same on year on year basis based on the actual discharge of liability.

ABITA submitted that APDCL has claimed Rs 1156.19 Cr as employee expenses which include Rs 337.62 Cr towards provision of DCRG under NPS. ABITA requested the Commission to allow the employee and R&M expenses on the basis of actual as per the books of accounts for FY 2021-22. ABITA held that the provision of DCRG under NPS may be allowed after prudence check by the Commission. Besides, ABITA requested the Commission to disallow the special provisions of Rs. 2.00 Crore towards consumer awareness initiatives.

AAECA submitted that in the true-up for FY 2021-22, APDCL has claimed O&M of Rs 1454.76 Cr when actual expense is Rs 1351.03 Cr, which is against the interests of consumers and also do not conform to Sections 61(c) and 61(d) of the Electricity Act, 2003 which mandates safeguarding the interests of consumers and at the same time recovery of cost of electricity in a reasonable manner.

Reply of APDCL

APDCL submitted that as a regulated entity, the claim for O&M expenses is placed in strict adherence to the governing Regulations and on the basis of audited statement of accounts. All detailed calculations and justifications on heads of expenses are submitted before the Commission for prudence check.

Commission's View

The Commission has allowed O&M expenses in accordance with the applicable MYT Regulations after prudence check, as elaborated in the relevant chapters of this Order.

Issue 5: Capitalization

Stakeholders' Comments

FINER submitted that against the approved Capitalization of Rs. 1,326.90 Crore for FY 2021-22, the Petitioner has claimed to capitalize Rs. 562.52 Crore. No explanation as to why the approved Capitalization could not be attained is provided by the Petitioner. Besides, additions to Fixed assets is Rs. 505.30 Crore only as against Rs. 562.62 Crore claimed by the Petitioner. FINER also submitted that GFA details include intangible assets amounting to Rs. 12.01 Crore which is not admissible and ought to be disregarded.

Reply of APDCL

APDCL submitted that all details in regard to capital expenditure vis-à-vis capitalisation has been provided to Hon'ble Commission. Actual capitalisation as per audited statement of accounts may be considered as per the prevailing regulation. APDCL further submitted that Adequate steps in adherence to various directives from the Commission has resulted in increased capitalisation of works from previous years.

Commission's View

Noted. The details of approved capital expenditure and capitalization are discussed in the relevant Chapters of this Order.

Issue 8: Depreciation

Stakeholders' Comments

FINER submitted that the Petitioner has claimed depreciation amounting to Rs. 40.02 Crore for FY 2021-22. The Petitioner has added the depreciation on assets created out of consumer contribution, which is not in line with the provisions laid down in the

Regulations and therefore, should not be considered.

ABITA requested the Commission to consider the actual capitalization (after excluding assets created from grants and consumer contribution) for FY 2021-22 for the purpose of computation of depreciation.

AAECA opposed any depreciation over and above what was approved in FY 2023-24 by the Commission in the MYT Order.

Reply of APDCL

APDCL submitted that it has claimed depreciation as per governing Regulations.

Commission's View

Depreciation allowed by the Commission is discussed in the relevant Chapters of this Order.

Issue 9: Interest and Finance Charges

Stakeholders' Comments

FINER submitted that the allowable Interest on Working Capital is Nil and requested the Commission to consider as same.

ABITA calculated normative interest on loan of Rs.9.23 Cr against claim made by petitioner of Rs 10.81 Cr by applying actual rate of interest @8.41% on the closing loan for FY 2021-22.

Reply of APDCL

The Petitioner contended that rate of interest has been claimed as per governing regulations.

Commission's View

The Commission's analysis and the ruling on the issue are discussed in the relevant chapter of this Order.

Issue 10: Return on Equity (RoE)

Stakeholders' Comments

FINER submitted that the petitioner has received Rs. 227.81 Crore booked under Exceptional items in the Audited Accounts for FY 2021-22. The Govt. of Assam

sanctioned conversion of Govt. grants and loans into equity and waived off the interest accrued (amounting to Rs. 346.38 Crore) on loan from GoA and the company is in receipt of Rs. 227.81 Crore (out of Rs. 346.38 and the rest of the amount is still in CWIP) as interest waiver which also needs to be accounted for while adjudicating on the ARR in case Petitioner is seeking conversion of loan and grants to equity. The Petitioner requested the Commission to also factor in the receipts based on the outcome of GoA's letter in addition to the Loan/ Grant conversion.

ABITA submitted that APDCL has claimed an amount of Rs. 95.03 Crore towards RoE considering equity addition of Rs. 862.39 Crore during the year. However, there is no mention of funding of capitalization through equity of Rs. 862.39 Crore. The respondent further submitted that the loan and grant converted to equity are mere book adjustments, this equity has not taken the 'colour of actual equity' and therefore cannot be treated as regulated equity for computation of equity. In this regard, ABITA quoted the Judgments in Appeal No. 141 of 2016 and Appeal NO. 117 of 2017 by the Hon'ble Appellate Tribunal for Electricity and the BERC Order.

CAC submitted that Rs. 4290.2375 Cr of capital subsidies offered by the State Government as grants have been sanctioned for conversion into equity to affect an artificial turnaround of APDCL's financial health. In the true up 21-22, Rs.95.03 Cr has been claimed by APDCL which is going to rise by Rs.65.78 Cr for 2022-23. CAC observed that all the losses the utilities have incurred is proposed to be burdened on the consumers.

Reply of APDCL

APDCL submitted that the claim is made in strict adherence to the principles adopted by the Commission.

Commission's View

The Commission's analysis and ruling on the computation of RoE is elaborated in relevant Chapters of this Order. The Commission has followed the same methodology for calculating RoE that was upheld by the Judgement of Hon'ble APTEL in Appeal No.117 of 2017, Appeal No.118 of 2017, Appeal No.120 of 2017 & Appeal No.121 of 2017 dated 25th October, 2018.

Issue 11: Revenue Collection

Stakeholders' Comments

CAC submitted that Rs.114.0678 Cr was spent in outsourcing revenue collection service for 2021-22 which is Rs. 37.7375 Cr higher than the expenses of 2020-21. Therefore, APDCL should either develop its own software or buy one and use its own IT personal to implement the same. CAC further submitted that at present, all the high valued consumers have been remotely billed and monitored at Guwahati. This needs to be extended throughout the State. CAC submitted that if the present process of installation of smart meters are completed for all the urban consumers then, energy auditing in the urban sector can also be carried out to know the exact technical losses. CAC further observed that since installation of smart meters at all the consumers in the rural sector, would be a costly proposition, therefore, collection of revenue through panchayat could be stop gap arrangement for the time being.

Reply of APDCL

The petitioner submitted that the Company has been using indigenously developed Artificial Intelligence based spot billing software for expeditious and proper billing. This venture got national level accolades. Similarly, the petitioner has developed in house billing software (APDCL Revenue Management System) thereby saving around Rs. 18 Crore per year only on OPEX of the system. APDCL clarified that the cost referred by the respondent pertains to expenses on outsourced manpower and not on software front. The petitioner further informed that metering of all nodal points vis-à-vis proper energy auditing are one of the prime parameters under RDSS and the same is under implementation.

Commission's View

Noted.

Issue 12: Revenue Subsidy

Stakeholders' Comments

FINER submitted that Rs. 100 Crore owed during the FY 2020-21 was received by the Petitioner in FY 2021-22. Therefore, the subsidy of Rs. 463 Crore booked during the FY 2021-22 is expected to be realized to the Licensee. It is for the Petitioner to ensure that the Subsidy commitments are fulfilled based on support indicated by GoA. Therefore, the

respondent requested the Commission to consider Rs. 463 Cr as Subsidy against the claim of Rs. 363 Crore considered by the petitioner.

AAECA submitted that the claim of Rs 363 Cr as tariff subsidy against the commitment of Rs 400 Cr is not acceptable.

ABITA requested the Commission to check the prudence of the incomes, grant/subsidy booked and account for all the financial support APDCL has received for FY 2021-22 to true-up the ARR for the period.

Reply of APDCL

APDCL contended that submission of FINER is self-contradictory. The excerpt from the tariff order itself specified the reason for non-consideration of Rs. 100 Cr pertaining to previous year during FY 22.

Commission's View

The treatment of Subsidy received from the State Government for FY 2021-22 has been elaborated in the relevant Chapter of this Order.

Issue 13: ARR and Revenue Surplus/Gap

Stakeholders' Comments

FINER submitted that the allowable Revenue Surplus for the FY 2021-22 is Rs. 918.91 Crore as against 228 Crore Revenue Gap proposed by the Petitioner and Revenue Surplus for the FY 2023-24 is Rs. 2,273 Crore as against the Revenue Gap of Rs. 1,067 Crore claimed by the Petitioner. The respondent requested the Commission that the benefit of surplus available in the ARR must be passed on to the consumers of the State and the proposal of the Petitioner for increase in retail tariff should be outrightly rejected.

ABITA recalculated the ARR and Revenue Surplus/Gap and observed that APDCL has a surplus of Rs. 1519.76 Crore in FY 2021-22 as against claim of Rs. 274.74 Crore of Revenue Gap proposed by APDCL. Further, ABITA proposed a surplus of Rs. 1698.32 Crore for FY 2022-23 and requested the Commission to use the surplus revenue to rationalise the tariff of subsidizing categories such as Industry, Tea & Coffee, etc.

AAECA submitted that actual revenue was more than approved in true-up of FY 2021-22,

and in APR of FY 2022-23 and therefore any tariff hike would not be reasonable and justified and against the interest of consumers.

Reply of APDCL

APDCL submitted that the ARR/Revenue Gap of the Petitioner has been claimed after detailed explanation of the various heads of income/expense of the Petitioner and requested the Commission that the same may be allowed, after due prudence check.

Commission's View

The Revenue Gap/Surplus for FY 2021-22 and the ARR for FY 2023-24 has been determined after necessary prudence check and in accordance with the applicable MYT Regulations, as elaborated in the relevant Chapters of this Order.

Issue 14: High Tariff for Tea Category

Stakeholders' Comments

ABITA submitted that the tariff applicable for Tea & Coffee Estates/Plantations is among the highest in the State. ABITA appreciated the Time-of-Day Tariff with night time concession in the previous tariff Order. ABITA requested the Commission to align the tariff with average cost of supply so that the tea manufacturers are relieved from the extra burden of cross-subsidization should be further reduced considering the availability of revenue surplus. ABITA prayed to disallow any upward increase in the tariff for Tea, Coffee & Rubber category for FY 2023-24 as the same will render the affected manufacturing units in the State of Assam as unviable.

NETA submitted that the tariff hike proposal for tea, coffee & Rubber category should be rejected as this would adversely affect the profitability of the tea industry.

Reply of APDCL

APDCL submitted that in the perspective of Assam with more than 93% domestic consumers and without much presence of other industry due to various factors, Tea is a natural industry. Accordingly, Tea, Coffee & Rubber category is treated separately since long. Considering the ultimate impact on the supply chain vis-à-vis terms of the Tariff Policy and purchasing power of consumers in Assam, the proposal has been submitted with cross subsidy very much within the permissible limit.

Commission's View

The Commission has determined the category-wise tariffs and has ensured that the tariffs are within +/-20% of ACoS for most consumer categories, as elaborated in the relevant Chapters of this Order.

Issue 15: Increase in Tariff (Fixed & Energy) Charges

Stakeholders' Comments

ABITA submitted that in its Tariff Petition, APDCL has again proposed an abrupt increase in fixed and energy charges across various categories to cover the erroneous revenue gaps for FY 2021-22, FY 2022-23 and FY 2023-24. ABITA requested the Commission to utilise the surplus revenue to rationalise the tariff of subsidizing categories as tariffs are quite high. ABITA requested the Commission that any increase in demand and energy charges for the tea, coffee & rubber category is irrational and not be approved.

AAECA opposed any increase in tariff rates including both fixed and energy charges as it can be inferred from the petition that there is no reasonable ground for increase. AAECA also submitted that there has been no increase in tariff in West Bengal from FY 2016-17 to FY 2022-23.

RD opposed any hike in tariff stating that the tariff was hiked several times in the past and rates are already very high. RD submitted that any decision to increase the tariff further may force industrial units to shift to neighbouring States where tariff rates are cheaper. RD further stated that financial losses suffered by the Company were due to huge corruption and mismanagement and some states like Haryana and Delhi provide free power to common public. Therefore, RD requested the Commission to set aside the present tariff hike proposals as any increase in tariff would overburden the consumers who are yet to recover from the onslaughts of COVID -19 pandemic.

NETA submitted that the entire basis of fixed cost needs to be studied. There is insignificant infrastructure development or maintenance on the existing consumer connections and hence the proposed increase in the fixed cost is highly uncalled for.

AIMO submitted that with increased economic activities since last two years, Assam is experiencing an increased average peak demand of power. Therefore, instead of seeking increase in the tariff APDCL should decrease the tariff as economics rule says that higher the scale of production less the cost of production and distribution. AIMO further submitted

that APDCL has proposed to increase the tariff for different type of consumers ranging from .70 Rupee to 2.70 Rupees on the plea of hike in the prices of natural Gas. However, the fuel surcharge is already being collected and the proposed hike is unwarranted for. More over the Gas based electric generation is a small part of their production and should not have much impact on their overall purchases.

In the oral submissions during the hearing, AAP submitted that no increase in tariff should be approved. Instead, the petitioner may be asked to adopt cost control and reduction strategies and improve operational efficiencies to overcome any financial shortage. AAP also submitted that APDCL should take measures to identify and reduce commercial losses and requested the Commission not to approve any tariff increase.

Reply of APDCL

APDCL submitted that in principle energy charge is to be levied for recovery of energy component of power purchase cost. Fixed charge is primarily the charge for fixed part of the power purchase cost, transmission charges, operation and maintenance of distribution network and equipment and linked with the connected load. Operation and maintenance cost of electricity infrastructure has been increasing manifold due to price rise of all commodities which determine the cost of supply in distribution sector. The tariff proposal has been prepared after prudent analysis. Against estimated fixed cost of around 60%, only 18% recovery is proposed in the form of fixed charges. The proposal was submitted in the premises of improved supply conditions to consumers and tea gardens.

Commission's view

The Commission has determined the category-wise tariffs and the details are elaborated in the relevant Chapters of this Order.

Issue 16: Determination of Tariff based on Voltage-wise Cost of Supply

Stakeholders' Comments

ABITA requested the Commission to determine tariff based on voltage-level cost of supply. This would enable cost reflective tariff in the State. ABITA submitted that the existing voltage-wise cost of supply may be based on number of assumptions but unless the Commission implements the same, the Petitioner would not be providing sufficient information in this regard. Therefore, ABITA requested the Commission not to wait

indefinitely for accurate data and introduce voltage-wise tariff structure in the State.

Reply of APDCL

The petitioner submitted that it has no issue on VCoS based tariff in principle subject to adequate commercial safeguard to the utility. However, the petitioner further submitted that with typical consumer mix of Assam vis-à-vis rationalization of tariff as per Tariff Policy and purchasing power parity, the same will be very challenging at this juncture. Adequate metering arrangement at every nodal point will be undertaken in RDSS for proper determination of VCoS. Therefore, it would be prudent to deliberate on the matter after full implementation of RDSS and overall implication.

Commission's view

Noted.

Issue 17: Load factor Rebate

Stakeholders' Comments

FINER submitted that many Distribution Companies in India have started giving a load factor rebate to industries for maintaining load factor above average load factor. This helps the Discom in planning the load requirement and optimum utilization of resources. FINER submitted that it is already evident from the petition that surplus power is sold at rates less than APPC. Such quantum of power may be sold by the Distribution Licensee to its own consumers at Tariff with suitable rebate so that the industries get incentivized and discoms also benefit.

Reply of APDCL

Being a regulated utility, APDCL is complying with the regulations and admissible rebates are allowed.

Commission's view

Noted. APDCL may consider the suggestion and propose Load Factor rebates for industries in the next Tariff Petition, as appropriate, after considering all relevant aspects.

Issue 18: Peak Load Shedding

Stakeholders' Comments

FINER submitted that the fixed charges per unit may be pro-rated, as per availability

during a day or a month. Load shedding for industries happen during peak load, due to this maintaining high power factor becomes difficult. APDCL should provide the necessary power during peak load hours also, so that the industrial consumers can maintain better Power factor, and get incentivized for maintenance of better PF.

Reply of APDCL

APDCL submitted that may approach the competent APDCL authority with specific case details for redressal. APDCL informed that pro-rata billing of fixed charge is done as per the regulation.

Commission's view

Noted. The Commission directs APDCL to make arrangement for uninterrupted and good quality power supply to the consumers.

Issue 19: Timely payment and Bank Guarantee (BG)

Stakeholders' Comments

FINER submitted that the consumers should be given a discount for timely payment of dues so as to improve the cash flow of the Company.

Reply of APDCL

APDCL remarked that submission of the respondent calls for amendment of the prevailing Regulations and is beyond the scope of the Petition.

Commission's view

Noted.

Issue 20: Cross-subsidy

Stakeholders' Comments

ABITA submitted that the current level of cross-subsidies in the State of Assam is very high in comparison to other States where average realization for historically cross-subsidized categories have progressively moved towards cost of supply/average cost of supply thereby easing off the burden of high tariff on the historically cross-subsidizing categories. ABITA submitted that the current levels of tariff are not aligned with the ACoS for Jeevan Dhara and Domestic A categories and there is a continuance of a large

component of cross subsidy. Further, with the substantial increase in sales to these subsidized categories, the requirement for cross-subsidy is increasing. ABITA requested the Commission to approve tariff for these categories in line with average cost of supply and the State Government may consider providing adequate retail subsidy, if it desires so. Also, ABITA submits that the cross-subsidy being recovered from the Tea and Coffee plantations is amongst the highest. ABITA requested the Commission is to reduce the high level of cross-subsidy for Tea Estates, as such large level of cross-subsidy is hampering the viability of this industry.

FINER submitted that while the provisions of the National Tariff Policy 2016 indicate that the levels of Cross-subsidy must gradually reduce, however, the Petitioner's proposal is going exactly opposite to what has been envisaged under the Policy. The burden of the Petitioner's inefficiency is passed only onto the industrial consumers which is demotivating and non-business centric to say the least. FINER requested not to allow any increase in tariff of industrial consumers but reduce the tariffs.

Reply of APDCL

APDCL submitted that the tariff proposal has been made with due care to keep the cross-subsidy levels within $\pm 20\%$ to the extent possible.

Commission's View

The cross subsidy has been reduced over time. The Commission has determined tariffs for FY 2023-24 such that the cross subsidy for most categories is within the band of $\pm 20\%$ of ACOS, as stipulated in the Tariff Policy, while at the same time ensuring the revenue gap is met and that no category is subjected to tariff shock. The details are elaborated in the relevant Chapters of this Order.

Issue 21: Interest on Consumer Security Deposit

Stakeholders' Comments

ABITA observed that there is no clarity regarding actual payment of interest on security deposit of Rs 52.68 Cr in FY 2021-22 and requested the Commission to check the prudence of this payment.

Reply of APDCL

APDCL submitted that actual payment amount is as per audited statement of accounts.

Commission's View

APDCL has claimed the actual payment of interest on security deposit for FY 2021-22. The Commission has allowed the actual interest amount paid in the Truing up for FY 2021-22.

Issue 22: APDCL Manpower**Stakeholders' Comments**

CAC highlighted that APDCL has a dearth of manpower in the field level and carries out its normal functions through outsourcing. There is neither any training programme for such manpower nor all of them have work permit to work in an electric system. Moreover, temporary engagements were made for years together without regularization and there are sporadic incidents of protest and agitations by workers seeking justice which might turn out to be a socio-political problem, if not addressed. CAC observed that in contrast, APDCL has become top heavy organization with innumerable functional heads but without any tangible or productive output of significance. CAC suggested that APDCL should appoint a full-time executive director to lead the technical team.

Reply of APDCL

The petitioner submitted that recruitment against various posts couldn't get materialized due to various uncontrollable factors. However, the process is expected to get completed soon. APDCL further submitted that the suggestion from the respondent is welcome. However, being a fully State Government owned utility, the petitioner has very limited role in this aspect. The petitioner informed that the Ministry of Power is also mooting for prudent corporate governance in power discoms.

Commission's View

Noted.

Issue 23: Open Access**Stakeholders' Comments**

FINER highlighted that Cross-Subsidy Surcharge (CSS) and Wheeling charges are the

major charges applicable on Open Access Transaction. If a consumer (HT-II) of Assam wants to procure power from Open Access, it has to pay Rs. 2.91/kWh on account of Wheeling Charges and CSS over and above the Ex-bus charges apart from other application charges and has to bear energy loss as well.

FINER submitted that the open access charges proposed by the Petitioner are skyrocketing and not in line with the spirit of EA 2003. The objector requested the Commission to look in to this matter and approve the Open Access Charges, which could benefit the State at a larger scale.

Reply of APDCL

The petitioner submitted that the respondent has proposed for the components on the basis of ARR vis-à-vis revenue gap on the premise of some arbitrary calculation without any merit. In view of the above, APDCL requested the Commission not to consider the claim of the respondent.

Commission's View

The Commission has determined the Wheeling Charges and CSS in accordance with the MYT Regulations, 2021 and the approach adopted in previous Tariff Orders. Both, Wheeling Charges and CSS are dependent on the approved ARR and category-wise tariffs. The details are elaborated in the relevant Chapters of this Order.

Issue 24 Special Tariff for Cold Storage

Stakeholders' Comments

FINER submitted that currently APDCL has three tariff categories related to agriculture/irrigation with no category made for cold storage units. Thus, currently all such cold storage units are subjected to high industrial tariff. Due to such high unsustainable charges, local products from State of Assam are unable to compete with products of other States. FINER submitted that in order to encourage the local agricultural and food industry, a separate tariff category be created for cold storage units with low electricity tariff.

Reply of APDCL

APDCL submitted that the Commission may consider with detailed submission to assess the tariff implication.

Commission's View

Noted. In view of the Tariff Policy advocating simplification of tariff categories, the Commission has decided not to introduce any new tariff category at present.

Issue 25: Industrialization**Stakeholders' Comments**

FINER submitted that the power tariff in Assam is among top 5 in India and it will not be lucrative for any industry to have a plant here, if the power prices are so high. FINER further submitted that increase in tariff would result in uncompetitive cost of production for the industrial consumers in the State and the industries would be forced to shut down their operations. FINER requested the Commission to reduce the tariff, which shall ultimately help development of the State.

AIMO submitted that the hike in all these categories of industries when the industrial scenario in the State is in dismal position cannot be justified. AIMO observed that in view of prolonged power failures as well as low voltage, Industrial consumers are forced to install and run captive gensets which further adds to their high power consumption costs of production making them uncompetitive in market. AIMO requested the Commission not to hike any tariff as the Fixed charges and Tariff Hike proposals are not at all justified.

Reply of APDCL

APDCL submitted that the proposed hike is primarily driven by the gas price hike. Moreover, the proposal is exclusive of any support from State Government like earlier years which is around 41 paisa per unit at previous level.

APDCL further submitted that financial sustainability of the utility is of paramount importance to ensure quality supply to any industrial units. Fixed cost recovery is linked with quality of services rendered which has immensely improved over the years.

Commission's View

Noted. The

Issue 26: Special Category for Oxygen Plants**Stakeholders' Comments**

AOMO submitted that Oxygen gas is a lifesaving drug and its importance came into prominence during the Covid pandemic. In Assam, there are 7 oxygen plants and the combined manufacturing capacity of these plants is about 70 MT per day. Oxygen production is critically dependent upon good quality power, and are continuous process plants with load factor of more than 80%. AOMO further submitted that Chattisgarh ERC vide order dated 02/08/2021 provided a discount of 10% to oxygen plants and Bihar ERC introduced a new tariff category for oxygen manufacturers at a concessional tariff.

AOMO submitted that the Commission had been kind enough to offer a 20% rebate to oxygen manufacturers under HT-II category in the last tariff order. AOMO therefore, requested the Commission that a separate tariff category may be created for oxygen manufacturing plants at the same tariff as per last Order.

Reply of APDCL

The petitioner submitted that reduction of tariff to any class of consumers will have to be recovered from other class(s) of consumers to ensure financial sustainability of the utility. APDCL stated that the respondent may explore for same financial support on the basis of the energy bills paid from Government.

Commission's View

No separate category has been approved at this stage. The Commission's analysis and ruling on the category-wise tariffs are elaborated in the Tariff Schedule of this Order.

Issue 27: Creation of Special Slab for Defence Forces

Stakeholders' Comments

GE, Narangi and GE, Borjhar submitted that since the armed forces are buying power as a bulk user for largely domestic purposes and the power is not being used for any industrial activity, creation of a special slab for armed forces would be desirable. GE requested the Commission that the special tariff slab for armed forces may be at par or lower than that applicable to domestic consumers

Reply of APDCL

APDCL submitted that the Commission is the competent authority to decide such matters. The Petitioner further submitted that any such conversion will surely have an impact on

cross-subsidy vis-à-vis retail tariff for major chunk of beneficiary category and therefore, requested the Commission to consider the matter in the greater interest of justice.

Commission's View

No change in category has been approved at this stage. The Commission will take a view in the next MYT tariff after detailed submissions from APDCL on the impact in Cross subsidy and the tariff.

Issue 28: Creation of Separate Category/ Slab for Telecom Service Providers

Stakeholders' Comments

ATCTIPL submitted that there are around seven numbers of telecom Infrastructure Provider Companies in the State having thousands of towers/infrastructures with at least one electricity connection for each site. ATCTIPL highlighted that with the proposed hike in tariff, the monthly cost of each and every operator will be increased by around 12%. ATCTIPL requested the Commission that the Companies like telecom infrastructure Providers may be covered under a separate category of consumers, at a nominal rate, being consumers of fixed load on 24x7 basis. Alternatively, if it is not possible, a discount in the tariff on unit consumption, may be allowed, as offered to the oxygen manufacturing companies during the last tariff revision.

COAI, RJIL, SDIL, DIPA and Airtel submitted that the telecom industry is being charged commercial rates as against industrial rates, resulting in excessive financial burden on the telecom industry which works round the clock like any other industry. The respondents quoted a Judgement of the Hon'ble Supreme Court in General Manager, Telecom v. A. Sreenivas Rao and others, 1998 AIR SC 656 which considered the question whether Telecom Department of Union of India is an 'industry' and held that according to the test laid down by a Seven Judge Bench in Bangalore Water Supply and Sewage Board v. A. Rajappa and others (1978) 2 SCC 213, the Telecom Department of Union of India is an 'industry' within that definition, because it is engaged in a industrial activity and the Department is not engaged in discharging any one of the sovereign functions of the State.

The respondents further submitted the Government of Maharashtra, as part of their IT/ITES policy notified the applicability of industrial tariff to the telecommunication towers instead of commercial tariff. COAI therefore, requested the Commission to enable

industrial rates for the telecom industry in Assam in order to facilitate affordability of telecom services and the roll out of 5G services, while facilitating the march towards the vision of achieving a Digital Assam.

Reply of APDCL

APDCL submitted that categorization of consumers in different categories are the prerogative of the Commission. The Petitioner further submitted that any such conversion will surely have an impact on cross-subsidy vis-à-vis retail tariff for major chunk of beneficiary category and therefore, requested the Commission to consider the matter in the greater interest of justice.

Commission's View

No change in category has been approved at this stage. The Commission will take a view in the next MYT tariff after detailed submissions from APDCL on the impact in Cross subsidy and the tariff.

Issue 29: Renewable Purchase Obligation (RPO)

Stakeholders' Comments

FINER submitted that the Petitioner has not depicted the status of RPO compliance for the FY 2021-22. FINER further submitted that it is evident from the petition that the no REC was procured during the FY 2021-22, and requested that instead of incurring additional Power purchase cost on account of REC purchase for RPO fulfilment, the Commission may allow for the creation of RPO Regulatory fund through provisions in RPO Regulations as per the Uttar Pradesh Electricity Regulatory Commission vide Regulation 7 of the Uttar Pradesh Electricity Regulatory Commission (Promotion of Green Energy through Renewable Purchase Obligation) Regulations, 2010. The Fund can be utilized for development of Capital works pertaining to Transmission and Distribution network in the State. This would relieve the burden of the consumers who would otherwise been burdened by the additional Power purchase costs.

Reply of APDCL

The petitioner submitted that the instant petition is filed on the basis of governing RPO regulation applicable. Any amendment thereon with approval from the Commission will surely be complied with.

Commission's View

The Commission's analysis and ruling on the power purchase expenses and RE purchase vis-à-vis RPO targets is elaborated in the relevant Chapters of this Order.

4 Truing up for FY 2021-22

4.1 Methodology for Truing Up

- 4.1.1 The Commission had approved the ARR for APDCL for FY 2021-22 in the Tariff Order dated February 15, 2021.
- 4.1.2 APDCL submitted the Truing-up Petition for FY 2021-22 on November 30, 2022 based on audited annual accounts and the provisions of MYT Regulations, 2018.
- 4.1.3 The Commission approved the cost parameters through approval of the Aggregate 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 were based on projection of expenses and revenue before beginning of the year and the provisions of MYT Regulations, 2018, wherever applicable. However, 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 The Commission has carried out the Truing up for FY 2021-22 based on the submissions of APDCL, audited annual accounts for FY 2021-22 and provisions of MYT Regulations, 2018.
- 4.1.7 The Commission has analysed all the elements of actual expenditure and revenue of APDCL for FY 2021-22 and undertaken the truing-up of expenses and revenue in accordance with Regulation 10.1 of the MYT Regulations, 2018. The Commission has approved the sharing of gains and losses on account of controllable factors between APDCL and the consumers, in accordance with Regulation 12 of the MYT Regulations,

2018.

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 8520.08 MU for FY 2021-22, as against approved sales of 8037 MU, as shown in the Table below:

Table 6: Energy Sales for FY 2021-22 as submitted by APDCL (MU)

Sl. No	Category	Approved	Actual
	LT CATEGORY		
1	Jeevan Dhara	452	350.75
2	Domestic A	3407	3860.96
3	Domestic B	449	484.92
4	Commercial	882	789.33
5	General Purpose (Non Commercial & Non Domestic Users)	147	124.52
6	General Purpose (Govt. Primary & Secondary/ Higher Secondary Schools)		9.41
7	Public Lighting	17	22.39
8	Agriculture	50	32.85
9	Small Industries (Rural)	95	75.5
10	Small Industries (Urban)	37	29.33
11	Temporary Supply	6	17.08
12	Electric Vehicle Charging Station (LT)		0.02
	HT CATEGORY		
13	Domestic	21	21.23
14	Commercial	355	363.11
15	Public Water Works	88	96.56
16	Bulk Supply (Govt. Education)	79	73.35
17	Bulk Supply (Others)	380	413.43
18	HT Small Industries	18	15.59
19	HT-I Industries (above 50 kVA to 150 kVA)	101	71.16
20	HT-II Industries above 150 kVA (Option I : TOD)	902	898.56
21	HT-II Industries above 150 kVA (Option II : Non TOD)		140.55
22	Tea, Coffee & Rubber	468	520.87
23	Oil & Coal	65	79.81
24	HT Irrigation (above 25kW) (30 kVA)	15	14.75
25	HT Temporary Supply	2	0.39
26	HT Electric Crematorium		0.02
27	HT Railway Traction		13.3

Sl. No	Category	Approved	Actual
28	HT Electric Vehicle Charging Station	0.2	0.35
	TOTAL	8037	8520.08

4.2.2 APDCL submitted that the actual sale has shown an increase of 6% vis-à-vis approved energy sales as per the tariff order. However, total sale in FY 2021-22 has experienced a massive 14% growth over FY 2020-21. The same is mere 1.84% deviation from ARR estimate and 1.38% from APR estimates by APDCL for FY 2021-22.

4.2.3 APDCL submitted that such deviation is primarily driven by resumption of business activities after a disruptive FY 2020-21 as well as adequate measures of proper billing with use of AI based software.

4.2.4 APDCL requested the Commission to approve actual retail energy sales of 8520 MU (excluding OA consumption) for true-up for FY 2021-22 since it is uncontrollable.

Commission's Analysis

4.2.5 The Commission has analysed the category-wise and total sales submitted by APDCL in the Petition and sought clarifications regarding the opening number of consumers in the Jeevan Dhara and Domestic A category, monthly addition and migration, and closing number of consumers in these two categories. APDCL submitted the necessary details and also clarified that quite a few 'ghost consumers' were deleted from the records, as a result of which, the net addition of consumers in certain months of FY 2021-22 would be different from the new consumer addition and migration from other category. The Commission accepted the above explanation and the actual category-wise sales as submitted by APDCL.

4.2.6 The category-wise sales approved by the Commission after true-up of FY 2021-22 is as shown in the Table below:

Table 7: Energy Sales for FY 2021-22 approved by the Commission (MU)

Sl. No.	Category	Approved in Tariff Order	Actual	Approved after True-Up
	LT CATEGORY			
1	Jeevan Dhara	452	351	351
2	Domestic A	3,407	3,861	3,861
3	Domestic B	449	485	485

Sl. No.	Category	Approved in Tariff Order	Actual	Approved after True-Up
4	Commercial	882	789	789
5	General Purpose (Non-Commercial & Non- Domestic Users)	147	125	125
6	General Purpose (Govt. Primary & Secondary/ Higher Secondary Schools)		9	9
7	Public Lighting	17	22	22
8	Agriculture	50	33	33
9	Small Industries (Rural)	95	76	76
10	Small Industries (Urban)	37	29	29
11	LT Electric Vehicles Charging Stations		0.02	
12	Temporary Supply	6	17	17
	LT TOTAL	5,543	5,797	5,797
13	HT Domestic	21	21	21
14	HT Commercial	355	363	363
15	Public Water Works	88	97	97
16	Bulk Supply (Govt. Education)	79	73	73
17	Bulk Supply (Others)	380	413	413
18	HT Small Industries	18	16	16
19	HT-I Industries (above 50 kVA to 150 kVA)	101	71	71
20	HT-II Industries above 150 kVA (Option I: TOD)	902	899	899
21	HT-II Industries above 150 kVA (Option II: Non-TOD)		141	141
22	Tea, Coffee & Rubber	468	521	521
23	Oil & Coal	65	80	80
24	HT Irrigation	15	15	15
25	HT Temporary Supply	2	0	0
26	HT Railway Traction		13	13
27	HT Electric Crematorium	-	0.02	0
28	HT Electric Vehicle Charging Station		0.35	0
	HT TOTAL	2,494	2,723	2,723
	TOTAL ENERGY SALES	8,037	8,520	8,520

Accordingly, the Commission approves the total energy sales of 8,520 MU in the Truing up for FY 2021-22.

4.3 Distribution Loss

- 4.3.1 APDCL, in its Petition, submitted that it has achieved distribution loss level of 16.95% in FY 2021-22 as against the approved level of 15.00%. The actual distribution loss for

FY 2021-22 has been arrived at by considering the actual quantum of power purchase, losses in inter-state and intra-state transmission and actual retail sales to the consumers of the utility.

- 4.3.2 APDCL submitted that though it has not been able to achieve the approved level of Distribution Losses in FY 2021-22, APDCL has achieved significant Loss reduction over the period from FY 2005-06 to FY 2021-22.
- 4.3.3 APDCL submitted that over the years the utility has been able to bring down the losses gradually barring FY 2009-10, FY 2011-12 and FY 2018-19. In all these years, the increment over respective previous years is primarily on account of enhancement of LT networks under RGGVY/DDUGJY/SAUBHAGYA without adequate HT infrastructure.
- 4.3.4 APDCL submitted that the ratio of primary line length to its concerned secondary distribution line length is one of the important factors that influence the performance of primary distribution. Over the years, large scale expansion of the rural electrification programme has resulted in considerable expansion of Low Tension (LT) distribution network. The size of the distribution transformers has been constantly increasing to meet the increasing demand due to load growth.
- 4.3.5 APDCL submitted that consumer profile of Assam is heavily skewed towards low-end consumers spread across far flung areas. As a result, the length of LT lines/circuits is also increasing, resulting in high losses in LT lines, excessive voltage drops, frequent faults on LT network and higher rate of failure of distribution transformers. Such situation coupled with limited financial resources has resulted in disproportionate LT:HT ratio with very large length of LT lines as compared to High Tension (HT) lines resulting in high LT/ HT ratios. The LT-HT ratio of APDCL in infrastructure terms is 3.24:1 against the desired level of 1:1.2.
- 4.3.6 APDCL submitted that the manpower strength of APDCL is badly affected with pendency of recruitment processes initiated during 2018 due to various litigations. Meanwhile, consumer base vis-à-vis infrastructure has experienced a huge surge particularly due to SAUBHAGYA.
- 4.3.7 APDCL submitted that it is getting much more difficult to reduce the distribution losses

now at the same rate as achieved in the past years. The reason is massive increase in low end domestic consumer base under SAUBHAGYA vis-à-vis constrained human resources. The sales mix is also getting adverse every year as LT sales is 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.

- 4.3.8 APDCL also submitted that considering the actual distribution loss levels of previous years, manifold increase in LV consumers, and deferred implementation of various schemes as per the approved capital investment plan, the Petitioner requested the Commission to approve actual distribution loss of 16.95% for FY 2021-22 in the truing up for FY 2021-22.

Commission's Analysis

- 4.3.9 The Commission analysed the information submitted by APDCL regarding Distribution Losses. It is observed that APDCL's contention that the worsening HT:LT ratio increases Distribution Losses, though correct in theory, is not borne out by APDCL's own performance over the last 2-3 years. Though HT:LT ratio has worsened over the past 2-3 years, APDCL has reported improvement in Distribution Losses from 19.70% (FY 2018-19) to 16.95 % (FY 2021-22). Further, the Circle-wise Distribution Loss data submitted by APDCL shows that there are some Circles with very high loss levels, which need to be targeted, to achieve the Loss levels approved by the Commission.
- 4.3.10 **The Commission has considered the approved Distribution Loss level for FY 2021-22 of 15 %, for the purpose of truing up for FY 2021-22, as approved in the Tariff Order dated February 15, 2021. The efficiency loss on account of higher than approved Distribution Losses, in terms of excess power purchase expenses, has 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 purchased in FY 2021-22 was 11952.58 MU against the energy requirement of 10494 MU, considering the approved level of Distribution Losses.

Commission's Analysis

- 4.4.2 In the truing up for FY 2021-22, the Commission has approved the energy requirement on the basis of approved sales, approved Distribution Losses, actual Transmission Loss of AEGCL and PGCIL Losses on external power purchase for the respective year.
- 4.4.3 It may be noted that though the quantum of Surplus Power sold outside the State has been considered while computing the Energy Balance, 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 2021-22 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 8: Energy Requirement approved by the Commission after True-Up for FY 2021-22

Sl. No.	Particulars	Tariff Order	APDCL Petition	Approved after True-Up
1	Energy sales	8,037	8,520	8,520
2	Distribution Loss (%)	15.00%	16.95%	15.00%
3	Distribution Loss (MU)	1,418	1,739	1,503
4	Energy Requirement at T<>D periphery	9,455	10,259	10,023
5	Intra State (AEGCL) Transmission Loss (MU)	3.29%	3.36%	3.32%
6	Intra State (AEGCL) Transmission Loss (%)	322	357	344
7	Energy input to Transmission System	9,777	10,616	10,367
8	Inter-State (PGCIL) Pooled Loss (%)	1.40%	2.69%	1.74%
9	Inter-State (PGCIL) Pooled Loss (MU)	139	322	201
10	Seasonal Export	579	1,015	1,015
11	Total Energy Requirement	10,494	11,953	11,584

Therefore, the Commission approves Energy Requirement of 11,584 MU for sale of 8,520 MU to retail consumers in the truing up for FY 2021-22.

4.5 Power Purchase

- 4.5.1 APDCL submitted that the Power procurement of APDCL is predominantly

dependent on the state generating stations of APGCL and central generating stations to meet its base load. Around 31% of power is allocated from hydro power station with seasonal volatility. As such, in order to meet the peak demand of the State, APDCL require to procure additional power on short-term basis through traders and also from Power Exchanges.

- 4.5.2 APDCL submitted that during FY 2021-22, APDCL incurred net cost of Rs. 5917 Crore (inclusive of transmission charges) for purchase of 11953 MU as against the approved cost of Rs. 5444.22 Crore (inclusive of transmission charges) for 10494 MU. The total power purchase cost for FY 2021-22 comprises of the basic power purchase cost, transmission charges payable to PGCIL and AEGCL (inclusive of special charge on BST).
- 4.5.3 APDCL submitted that the weighted average rate for purchase of power for FY 2021-22 is Rs. 4.95 per unit against approved rate of Rs. 5.19 per unit.
- 4.5.4 APDCL submitted that the decline is due to supplementary credit bills against various CPSU Genco/CTUIL in the true up petitions for MYT period 2014-19 by CERC. Net credit bills adjusted in the total cost is Rs. 52.96 Crore. On the basis of the same, APDCL has passed on benefit to retail consumers in the form of FPPPA during Jun'22 to Aug'22.
- 4.5.5 APDCL also submitted that during the month of October, 2021, there was severe coal crisis leading to non-availability of power from conventional thermal sources. Due to such scarcity, IEX prices shoot up to Rs. 20 per unit. Moreover, adequate quantum of power was also not available. To avoid load shedding during the festive time of Durga Puja, special arrangement of power at IEX DAM rate was made from Kameng HEP (NEEPCO) in line with Ministry of Power advisory for the period from 13.10.21 to 19.10.21. The same was intimated to the Commission on 11.10.2021. This arrangement was made on post-paid basis than pre-paid nature in IEX. With such arrangement, APDCL has been able to save Rs. 6.57 lakh in the form of interest on working capital as well as statutory charges. The same is considered under Trading purchase.

Commission's Analysis

- 4.5.6 The Commission asked APDCL to submit the source-wise breakup of power purchase cost into fixed cost, variable cost and other costs, if any, for the total

power purchase quantum of 11953.17 MU as submitted in the Petition.

- 4.5.7 The Commission further observed that the cost of power purchase from APGCL for FY 2021-22 as claimed by APDCL is different from the revenue from sale of power shown by APGCL. Similarly, the Transmission Charges and SLDC Charges claimed by APDCL for FY 2021-22 is different from the revenue from Transmission Charges and SLDC Charges shown by AEGCL.
- 4.5.8 The Commission asked APDCL to clarify whether any amount of Delayed Payment Charges has been claimed under the power purchase cost in the true-up for FY 2021-22, and if so, the amount of DPC claimed for FY 2021-22. APDCL submitted that no delayed payment surcharge was booked during FY 2021-22
- 4.5.9 As the true-up for AEGCL and APGCL has been done by considering the Revenue reported in their Audited Accounts for FY 2021-22, the Commission has considered the respective amounts shown as revenue by APGCL and AEGCL as the cost of power purchase from APGCL by APDCL and the Transmission Charges paid/payable to AEGCL by APDCL, respectively. Similarly, the quantum of net generation shown by APGCL has been considered as the net purchase by APDCL from APGCL.
- 4.5.10 As regards the Trading Purchase, the Commission asked APDCL should Confirm that all such purchase has been made through Competitive Bidding in accordance with the Competitive Bidding Guidelines notified by the Government of India and also to submit the documentary evidence of competitive bidding carried out for trading purchase along with the rates discovered in competitive bidding. APDCL submitted that during FY 2021-22, APDCL has procured power to meet seasonal deficit through IEX only at market clearing price determined through the collective bidding procedure.
- 4.5.11 The Commission also asked APDCL to submit the details of month-wise quantum purchased, average rate of purchase, and cost of such power purchase from Power Exchange. Also, to clarify the reasons for the lower PGCIL Charges incurred in FY 2021-22, as compared to the approved PGCIL Charges in the Tariff Order for FY 2021-22. APDCL submitted that PGCIL charges are governed by Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations. National Load Despatch

Centre (NLDC) is the Implementing Agency under the Regulation and entrusted with the responsibility of computation of ISTS transmission charges and losses. As per Regulation (14)(5)(b), Transmission charges payable by DICs are notified by NLDC by 25th day of the month following billing period. The computation of transmission charges was done on the basis of inputs received from ISTS Licensees, DICs/ States, CTU as per the Regulations. Detailed notification is made by NLDC on monthly basis for all entities covered under the regulation.

- 4.5.12 APDCL is also asked to clarify regarding the cost of Rs. 5.42 Crore under 'Others' in Table 5: Power Purchase Cost for FY 2021-22. APDCL submitted that Reactive and NERLDC Fees & charges (part of transmission charges) are depicted separately as Others.
- 4.5.13 The Commission notes that APDCL have incurred a delay payment charge of Rs. 2.85 Crore. The Commission is of the opinion that penal charges like Delay payment charges should not be passed onto consumers Hence, DPC charges of Rs. 2.85 Crore has been reduced from power purchase cost of APDCL.
- 4.5.14 The remaining source-wise purchases have been accepted by the Commission as submitted by APDCL. The summary of power purchase quantum and cost as approved in the Tariff Order for FY 2021-22, 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 Tables below:

Table 9: Power Purchase approved by the Commission after True-Up for FY 2021-22 (MU)

Sl. No	Agency/Source	Tariff Order			APDCL Petition			Approved after True-Up		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Cr	Rs./kWh	MU	Rs.Cr	Rs./kWh	MU	Rs.Cr	Rs./kWh
1	APGCL	1,458.77	385.21	2.64	1996.42	523.14	2.62	1,996.42	523.14	2.62
2	NEEPCO (HYDRO)									
	KOPII I	-	-		0.00	6.66		-	6.66	
	KOPII II	-	-		5.81	4.36	7.51	5.81	4.36	
	KHANDONG	-	-		150.22	50.12	3.34	150.22	50.12	3.34
	RHEP	626.16	135.28	2.16	491.75	136.45	2.77	491.75	136.45	2.77
	DHEP	88.75	46.77	5.27	41.09	48.83	11.88	41.09	48.83	11.88
3	NEEPCO (HYDRO) New									
	KAMENG HEP	225.41	90.18	4.00	275.07	110.29	4.01	275.07	110.29	4.01
4	NEEPCO (TH)									
	AGBPP	884.92	303.58	3.43	975.75	320.44	3.28	975.75	320.44	3.28
	AGTPP	376.98	152.76	4.05	387.85	142.04	3.66	387.85	142.04	3.66
	AGTPP 2									
5	NHPC Loktak HEP	143.69	49.39	3.44	113.90	51.15	4.49	113.90	51.15	4.49
6	NHPC New									
	SUBANSIRI HEP									
7	NTPC (Existing)									
	FARAKKA	239.05	92.01	3.85	217.44	82.78	3.81	217.44	82.78	3.81
	KAHELGAON - I	116.06	42.41	3.65	121.20	44.71	3.69	121.20	44.71	3.69
	KAHELGAON -II	433.83	146.20	3.37	514.32	191.40	3.72	514.32	191.40	3.72
	TALCHER	150.59	36.46	2.42	145.45	39.35	2.71	145.45	39.35	2.71
	FARAKKA-III									
8	NTPC (New) BTPS	2,279.34	1,430.61	6.28	2777.51	1,613.11	5.81	2,777.51	1,613.11	5.81

Sl. No	Agency/Source	Tariff Order			APDCL Petition			Approved after True-Up		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Cr	Rs./kWh	MU	Rs.Cr	Rs./kWh	MU	Rs.Cr	Rs./kWh
9	NTPC BTPS III									
10	Pohmura SHEP									
11	MeECL									
12	Pare HEP	210.79	105.47	5.00	170.23	85.34	5.01	170.23	85.34	5.01
13	Suryatap Solar	5.47	4.81	8.79	6.36	5.59	8.78	6.36	5.59	8.78
	Maheshwari MEPL Solar				0.51	0.08	1.59	0.51	0.08	1.59
15	JNNSM Bundled Solar power	6.77	9.01	13.31	6.37	7.79	12.23	6.37	7.79	12.23
16	SECI Solar	37.10	23.97	6.46	37.56	23.24	6.19	37.56	23.24	6.19
17	JNNSM Bundled Coal power	46.53	19.95	4.29	3.17	11.89	37.52	3.17	11.89	37.52
18	Bilateral Sources/Traders				21.40	19.02	8.89	21.40	19.02	8.89
19	Power Exchanges	265.96	86.60		1206.23	746.10	6.19	1,206.23	746.10	6.19
20	OTPC Palatana	1,343.03	456.17	3.40	1316.96	362.33	2.75	1,316.96	362.33	2.75
21	HHPCPL (Champawati)	5.92	2.41	4.07	8.53	3.50	4.11	8.53	3.50	4.11
22	Wind Power PTC	98.78	40.43	4.09	109.14	38.54	3.53	109.14	38.54	3.53
23	SECI Wind	129.36	37.59	2.91	148.31	40.34	2.72	148.31	40.34	2.72
24	Mangdechhu	631.40	272.33	4.31	561.53	234.90	4.18	561.53	234.90	4.18
25	PTC Nikachu	471.28	195.67							
26	SPV Assam (Azure Power)	218.16	72.69	3.33	76.72	25.14	3.28	76.72	25.14	3.28
27	Punatsangchhu HEP-I									
28	Punatsangchhu HEP-II									
29	Amguri Solar Park									
	Patanjali Solar				0.22	0.07	3.33	0.22	0.07	3.33
	Neyveli UP PL									
30	Solar RE Power Purchase - balance to meet RPO									

Sl. No	Agency/Source	Tariff Order			APDCL Petition			Approved after True-Up		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Cr	Rs./kWh	MU	Rs.Cr	Rs./kWh	MU	Rs.Cr	Rs./kWh
31	Non-Solar RE Power Purchase - balance to meet RPO									
32	Power Swapping Arrangement									
	Sub-total::	10,494.10	4,237.96	4.04	11,887.01	4,968.70	4.18	11,887.01	4,968.70	4.18
33	Renewable Energy Certificate (Solar)		11.04						-	
34	Renewable Energy Certificate (Non-Solar)		16.06			-				
35	UI Pool/Deviation Settlement Mechanism				66.16	35.06	5.30	66.16	35.06	5.30
36	Supplementary bills pursuant to CERC Order									
	Sub-total::	10,494.10	4,265.07	4.06	11,953.17	5,003.75	4.19	11,953.17	5,003.75	4.19
37	AEGCL Transmission Charges		389.09	0.37		367.35			367.35	
38	SLDC Charges		7.36			5.42			5.42	
39	PGCIL Transmission Charges		782.70			539.57			539.57	
	TOTAL	10,494.10	5,444.22	5.19	11,953.17	5,917.01	4.95	11,953.17	5,916.09	4.95
40	Less: rebate on timely payment of bills									
41	Less: Delayed Payment Surcharge								2.85	
42	Net Power Purchase	10,494.10	5,444.22	5.19	11,953.17	5,917.01	4.95	11,953.17	5,913.24	4.95

Therefore, the Commission approves Power Purchase Expenses of Rs. 5,913.24 Cr after Truing up for FY 2021-22.

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

4.6.1 APDCL has proposed to share the efficiency loss on account of excess power purchase costs due to actual Distribution Losses in FY 2021-22 being higher than the approved Distribution Losses. APDCL has computed the total excess power purchase cost as Rs. 116.74 crore, with APDCL's share of the losses as Rs. 77.84 crore and consumers' share of the losses as Rs. 38.91 crore.

Commission's Analysis

4.6.2 As the actual Distribution Losses are higher than the approved Distribution Losses for FY 2021-22, 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 10: Sharing of Efficiency Gain/(Loss) approved by the Commission on account of Distribution Losses after True-Up for FY 2021-22 (Rs. Crore)

Sl. No	Particulars	Units	APDCL Petition	Approved after True-Up
1	Total Power Purchase	MU	11,953	11,953
2	Sale of Surplus Power	MU	1,015	1,015
3	Actual Energy Purchased for sale within State	MU	10,938	10,938
4	Allowable Energy Purchase for sale within State at approved Distribution Loss	MU	10,659	10,551
5	Excess Energy Purchase	MU	278.81	387
6	Average power purchase rate	Rs/kWh	4.19	4.19
7	Excess Power Purchase Cost	Rs. Cr	(116.74)	(161.99)
8	Share of (loss)/gain to be borne by APDCL	Rs. Cr	(77.84)	(107.99)
9	Share of (loss)/gain to be borne by consumers	Rs. Cr	(38.91)	(54.00)

Therefore, the Commission disallows two third of the excess power purchase cost, i.e., Rs. 107.99 Crore in the truing up for FY 2021-22, which will be borne by APDCL,

and one third of the excess power purchase cost, i.e., Rs. 54 Crore is passed on to the consumers as per the MYT Regulations, 2018.

4.7 O&M Expenses

4.7.1 APDCL has claimed normative O&M expenses of Rs.1454.76 Crore against the approved O&M expenses of Rs. 1069.76 Crore for FY 2021-22, as shown in the Table below:

Table 11: Normative O&M Expenses for FY 2021-22 as submitted by APDCL (Rs. Crore)

S. No.	Particulars	FY 2021-22 (True-up)	
		Tariff Order	APDCL
1	Employee Expenses	813.58	1156.19
2	R&M Expenses	210.62	246.02
3	A&G Expenses	45.56	52.56
4	Total O&M Expenses	1,069.76	1,454.76

Employee Expenses

- 4.7.2 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 other staff welfare expenses.
- 4.7.3 APDCL submitted that the normative employee expenses for FY 2021-22 have been computed considering the approved normative employee cost for FY 2020-21 as base value.
- 4.7.4 An amount of Rs. 337.62 Cr against DCRG for NPS employees as per Audited Statement of accounts is considered.
- 4.7.5 APDCL requested the Commission to approved normative employee expenses of Rs. 1156.19 Cr for FY 2021-22 including the provision of DCRG.

Repair & Maintenance (R&M) Expenses

- 4.7.6 APDCL submitted that R&M Expenses are an integral part to ensure utility's commitment towards reliable and quality power supply by way of regular maintenance of its infrastructure.
- 4.7.7 APDCL submitted that R&M Expenses are directly related to volume of operation carried out. Manifold expansion of network with implementation of various electrification

programmes, viz., RGGVY/DDUGJY, SAUBHAGYA, IPDS, TDF and EAP necessitate extensive coverage for such works. However, adequate maintenance of assets couldn't be carried out in time due to restricted allowance in tariff for many previous years.

4.7.8 APDCL submitted that regular maintenance of assets is a pre-requisite to ensure reliable supply. APDCL has been trying its best to ensure uninterrupted operations of the system and has accordingly been undertaking necessary expenditure for R&M activities. Considering this fact, the expenditure incurred on R&M activities are uncontrollable in nature.

4.7.9 APDCL requested the Commission to approved normative R&M expenses of Rs. 246.02 Crore for FY 2021-22 linked to K-factor and WPI index. However, actual R&M expenses were Rs. 284.61 Crore.

Administrative and General (A&G) Expenses

4.7.10 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.

4.7.11 APDCL submitted that statutory fees have been claimed only to the extent of actual payment of Rs. 5 Crore against approval of Rs. 1.61 Crore is added.

4.7.12 APDCL submitted that Provision of Rs. 2 Crore (Rs. 1 crore each for consumer awareness and capacity building of APDCL employees each) as approved by the Commission has been considered against actual expenses of Rs. 4.71 Crore.

4.7.13 APDCL requested the Commission to consider normative expenditure under the head of A&G expenses of Rs 52.56 Cr for FY 2021-22. However, actual A&G expenses were Rs. 48.90 Crore.

Commission's Analysis

4.7.14 The Commission in the MYT Order has allowed O&M Expenses on normative basis. For the purpose of truing up for FY 2021-22, the Commission has computed the normative O&M Expenses as per the MYT Regulations, 2018. Any variation between normative O&M Expenses and actual O&M Expenses has been considered under sharing of gains/losses in

account of controllable items as the MYT Regulation, 2018.

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

- a) The employee expenses approved after True-up for FY 2020-21 have been considered as base expenses;
- b) CPI inflation has been computed as average increase of CPI index for the period from FY 2018-19 to FY 2020-21, which works out to 6%.
- c) Considering that there has not been any net addition to the employee base in FY 2021-22, growth factor of 0% has been considered.

4.7.16 The Commission asked APDCL to submit the details and justification for proposed addition of Rs. 337.62 Crore against DCRG for NPS employees, to the approved normative employee cost for FY 2021-22. APDCL submitted that the amount of Rs. 337.62 Crore comprises of two components of DCRG (Rs. 120.54 Cr) as well as LEB (Rs. 216.16 Cr) The Department of Pension and Pensioners' Welfare under Ministry of Personnel, Public Grievances and Pensions, Govt. of India has issued a notification on Central Civil Services (Payment of Gratuity under National Pension System) Rules, 2021. These rules will apply to the government employees including civilian government employees in the Defence Services who have joined on or after January 1, 2004, and to whom the Central Civil Services (Implementation of National Pension System) Rules, 2021 applies. In APDCL, NPS is adopted from 01.01.2004. Accordingly, the provision is made on the basis of actuarial evaluation as per Indian Accounting Standard (IndAS).

4.7.17 The Commission decided to approve recovery of the DCRG under NPS of Rs 337.62 Crore over a period of 5 years as this is a one-time provisioning against several past years. Therefore, only 1/5th impact (Rs. 67.52 Crore) has been approved in FY 2021-22, with the balance spread till FY 2025-26.

4.7.18 The normative employee expenses approved in the true-up for FY 2021-22 are shown in the following Table:

Table 12: Approved Employee Expenses for FY 2021-22 (Rs. Crore)

Particulars	Tariff Order	APDCL Petition	Approved after true-up
Employee Expenses for Previous Year	772.24	772.24	772.24
Growth Factor	0%	0%	0%
CPI Inflation	5.35%	6.00%	6.00%
Employee Expenses	813.58	818.57	818.58
Add: Provision for DCRG under NPS	-	337.62	67.52
Total Employee Expenses	-	1,156.19	886.11

Therefore, the Commission approves Normative Employee Expenses of Rs. 886.11 Crore in the truing up for FY 2021-22.

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

- Average increase of WPI for the period from FY 2018-19 to FY 2020-21, i.e., 2.41%, for computation of R&M expenses;
- The Commission has adopted the K-factor of 3.5% as approved for the Control Period.
- Since, K-factor has been considered on the basis of average GFA, for computation of R&M expenses for FY 2021-22, average GFA for previous years has been considered.

4.7.20 The normative R&M expenses approved in the true-up for FY 2021-22 are shown in the following Table:

Table 13: Approved R&M Expenses for FY 2021-22 (Rs. Crore)

Particulars	Tariff Order	APDCL Petition	Approved after True-up
Average GFA for previous year	5844.70	6,863.62	6,855.14
K Factor	3.5%	3.50%	3.50%
WPI Inflation	2.96%	2.41%	2.41%
R&M Expenses	210.62	246.02	245.71

Accordingly, the Commission approves normative R&M Expenses of 245.71 Crore in the truing up for FY 2021-22.

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

- The A&G expenses approved after True-up for FY 2020-21 have been considered as base expenses;
- The Commission has considered the average increase of WPI for the period from FY 2018-19 to FY 2020-21, i.e., 2.41%, for computation of A&G expenses.
- The provision of Rs 2 Crore additionally allowed against special initiatives, as APDCL has submitted details of actual expenditure of Rs 4.71 Crore under this head;
- The statutory fees have been considered separately at actuals, based on the details provided by APDCL and the audited accounts for FY 2021-22.

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

Table 14: Approved A&G Expenses for FY 2021-22 (Rs. Crore)

Particulars	Tariff Order	APDCL Petition	Approved after true-up
A&G Expenses for Previous Year	40.75	44.48	42.59
WPI Inflation	2.96%	2.41%	2.41%
Provision	2.00	2.00	2.00
Statutory Fees	1.61	5.00	4.80
A&G Expenses	45.56	52.56	50.42

Therefore, the Commission approves normative A&G Expenses of Rs.50.42 Crore in the true-up for FY 2021-22.

4.7.23 The normative O&M expenses approved by the Commission for FY 2021-22 is shown in the following Table:

Table 15: Normative O&M Expenses approved by Commission for FY 2021-22 (Rs. Crore)

SI No.	Particulars	Tariff Order	APDCL Petition	Approved after Truing up
1	Employee Expenses	813.58	1,156.19	886.11
2	R&M Expenses	210.62	246.02	245.71
3	A&G Expenses	45.56	52.56	50.42

SI No.	Particulars	Tariff Order	APDCL Petition	Approved after Truing up
	Total	1,069.76	1,454.76	1,182.23

4.8 The sharing of losses/(gains)on account of O&M Expenses

4.8.1 The MYT Regulation, 2018 specifies O&M Expenses (excluding terminal liabilities with regard to employees on account of changes in pay scales or dearness allowances due to inflation) is a controllable factor.

4.8.2 Hence, terminal benefit allowances are excluded for deriving sharing of gains/losses on O&M expenses.

Table 16: Sharing of losses/(gains) for O&M Expenses as submitted by APDCL for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Actual *	Normative	(Gains)/ Losses	1/3 of (Gains)/Losses
		a	b	c = (b-a)	d = c x 1/3
1	Employee Cost	1017.53	1156.19	(138.66)	(46.22)
	Less: Terminal Benefits	349.77	349.77		
	Employee Cost excl. Terminal Benefits & ROP	667.76	806.42	(138.66)	(46.22)
2	Repair & Maintenance	284.61	184.05	100.56	33.52
3	Administrative& General Expenses	48.9	46.49	2.41	0.8
4	TOTAL	1351.03	1386.73	(35.7)	(11.9)

Commission 's Analysis

4.8.3 The Commission has considered sharing of gains or losses after excluding terminal liabilities from normative as well as actual employee expenses. Accordingly, terminal liabilities are allowed on actual basis.

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

Table 17: Sharing of losses/(gains) for O&M Expenses approved by the Commission for FY 2021-22 (Rs. Crore)

Sl.	Particulars	Actual	Normative	(Gains)/ Losses	1/3 of (Gains)/ Losses
		a	b	c = -(b-a)	d = c x 1/3
1	Employee Cost	739.75	886.11	146.36	48.79
	Less: Terminal Benefits*	163.98	163.98	0.00	0.00
	Employee Cost excl. Terminal Benefits	575.77	722.12	146.36	48.79
2	Repair & Maintenance	170.55	245.71	75.16	25.05
3	Administrative & General Expenses	160.22	50.42	(109.80)	(36.60)
	TOTAL	906.53	1,018.25	111.72	37.24

Since, actual O&M expenses are lower than the normative expenses, the net gain of Rs. 37.24 Crore has been shared and passed on through ARR.

4.9 Capital Investment & Capitalisation

4.9.1 APDCL submitted that actual Capitalisation achieved during FY 2021-22 is Rs. 562.52 Crore.

4.9.2 The Petitioner requested the Commission to approve actual capitalisation of Rs. 562.52 Crore during true-up of ARR for FY 2021-22.

Commission's Analysis

4.9.3 The Commission asked APDCL to submit the actual capitalisation achieved in FY 2021-22 is Rs. 562.52 Crore, which is much lower than the amount estimated by APDCL in its APR Petition of Rs. 1565.22 Crore, and even the amount approved by the Commission in the APR Order of Rs. 1370 Crore.

4.9.4 APDCL was also asked to submit the actual scheme- wise funding of capitalized works with break-up of Grants, Loans, Consumer Contribution, Equity, etc. APDCL submitted the details of capital expenditure and capitalization against the schemes approved in the Tariff

Order, and the actual scheme-wise funding of the capitalised works

4.9.5 As regards the actual capitalisation achieved in FY 2021-22, the Commission has verified the same from the audited accounts of APDCL for FY 2021-22. The Commission has hence, considered the actual addition to GFA in FY 2021-22 as Rs. 562.52 Crore.

4.9.6 Accordingly, the Capital Expenditure and Capitalisation approved by the Commission in the truing-up for FY 2021-22 is shown in the following Table:

Table 18: Capital Expenditure and capitalisation approved by the Commission for FY 2021-22
(Rs. Crore)

Particulars	Tariff Order	APDCL Petition	Approved after true-up
Opening CWIP	5236.58	4,999.43	5,408.17
Capital Expenditure	503.97	740.51	740.51
Capitalisation	1320.96	562.52	505.32
Closing CWIP	4419.59	5,177.42	5,643.36

Therefore, the Commission approves total Capitalisation of Rs. 505.32 Crore in the true-up for FY 2021-22.

4.10 Depreciation

4.10.1 The Commission has approved depreciation of Rs. 16.65 Crore for FY 2021-22. APDCL submitted that as per APDCL statement of accounts Opening Gross Block of Fixed Assets for FY 2021-22 is Rs. 7948.59 Crore. APDCL submitted that out of the opening GFA, assets not belonging to the Company is Rs.5132.28 Crore and assets created out of Consumer Contribution is Rs. 233.81 Crore.

4.10.2 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, 2018. APDCL submitted that the depreciation of Rs 40.02 Crore claimed by APDCL is based on Rates of depreciation as notified in addendum to MYT Regulations 2018.

Table 19: Depreciation as submitted by APDCL for FY 2021-22 (Rs. Crore)

Particulars	Non-Depreciable Land	Depreciable	Non-Depreciable	Total
Opening GFA	18.79	2,563.72	5,366.09	7,948.59
Opening CWIP	-	3,476.87	1,522.56	4,999.43
Grant	-	3,359.32	8,124.52	11,483.84
Depreciation charged	-	90.16	-	90.16
Average rate		3.52%		
Apportioned GFA after adjustment of grant		1,137.97		
Apportioned depreciation claimed		40.02		

Commission's Analysis

- 4.10.3 The Commission has considered the opening GFA for FY 2021-22 as per the closing GFA value approved in True up of FY 2020-21, vide Tariff Order dated March 21, 2022. The Commission has computed depreciation as per scheduled rates specified in the MYT Regulations, 2018.
- 4.10.4 As per the MYT Regulations, 2018, 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 MYT Regulations, 2018, and in accordance with the Commission's own Orders.
- 4.10.5 Accordingly, the Commission has approved depreciation in the truing up for FY 2021-22 as per MYT Regulations, 2018, as given in the Table below:

Table 20: Depreciation approved for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation allowed after truing up
1	Land owned	18.79	0.18	0.00%	-
2	Leasehold Land	2.84		3.34%	0.09
3	Building	58.11	0.61	3.34%	2.96
4	Plant & Machinery	802.59	25.54	5.28%	63.54
5	Vehicle	27.24		5.28%	1.46
6	Furnitures & Fixtures	19.05	0.70	6.33%	1.85
7	Office Equipment	47.00	5.53	6.33%	13.85
8	Other Civil Work	66.49	4.65	3.34%	5.30
9	Lines & Cable Network	1,523.42	188.39	5.28%	188.26
	Total	2,565.53	225.60		277.31
10	Assets built through Grants/Consumer Contribution	233.81			
11	Assets not belonging to entity	5,132.28	279.72		
	Less: Depreciation for Grants/Consumer Contribution				240.51
12	Net Total	7,931.62	505.32		36.80

Therefore, the Commission approves Depreciation of Rs. 36.80 Crore in the truing up for FY 2021-22.

4.11 Interest and Finance Charges

4.11.1 APDCL submitted that the Commission had approved interest on loan capital for the year on normative basis in its previous Tariff Orders. APDCL added that it has not claimed interest on GPF and NPS etc, in accordance with the approach adopted by the Commission in previous Tariff Orders.

4.11.2 The net interest expenses claimed by APDCL in the Truing up for FY 2021-22 are shown in the Table below:

Table 21: Interest and Finance Charges as submitted by APDCL for FY 2021-22**(Rs. Crore)**

Particulars	Tariff Order	APDCL
Opening normative loan	128.08	131.03
Addition of normative loan during the year	132.1	18.75
Normative Repayment during the year	16.65	40.02
Net Normative Closing Loan	243.52	109.75
Rate of Interest	10%	8.41%
Interest Expenses	18.58	9.23
Interest and Financing Charges	2.95	-
Billdesk charges for collection revenue	2.78	-
Total Interest and Financing Charges	24.31	9.23

Commission's Analysis

4.11.3 The Commission has approved Interest on loan capital for FY 2021-22 on normative basis as per MYT Regulations, 2018. The closing net normative loan approved in the Truing up of FY 2020-21 has been considered as the opening net normative loan of FY 2021-22.

4.11.4 The Commission has sought clarifications from APDCL regarding the basis and computation for addition of normative loan of Rs. 18.75 Crore in FY 2021-22 with respect to the GFA addition during the year, and funding pattern of such addition to GFA in FY 2021-22.

4.11.5 The Commission has computed normative interest for FY 2021-22 on the average balance of loan during FY 2021-22, in accordance with the established practice in this regard.

4.11.6 The interest and Financing Charges as approved by the Commission in the truing up for FY 2021-22 is shown in the following Table:

Table 22: Approved Interest & Financing Charges for FY 2021-22 (Rs. Crore)

Particulars	Tariff Order	APDCL	Approved after True-up
Opening normative loan	128.08	131.03	131.03
Addition of normative loan during the year	132.1	18.75	18.75
Normative Repayment during the year	16.65	40.02	36.80
Net Normative Closing Loan	243.52	109.75	112.99

Particulars	Tariff Order	APDCL	Approved after True-up
Rate of Interest	10%	8.41%	8.41%
Interest Expenses	18.58	9.23	10.26
Interest and Financing Charges	2.95	-	-
Billdesk charges for collection revenue	2.78	-	-
Total Interest and Financing Charges	24.31	9.23	10.26

Therefore, the Commission approves Interest on Loans of Rs. 10.26 Crore in the truing up for FY 2021-22.

4.12 Interest on Working Capital (IoWC)

4.12.1 APDCL submitted that as against Rs. 5.11 Crore approved in the tariff order dated February 15, 2021 actual amount claimed is Rs 0.71 Crore as shown below

Table 23: Approved Interest & Financing Charges for FY 2021-22 (Rs. Crore)

Particulars (in Rs. Crores)	Tariff Order	APDCL Petition
O&M Expenses-One month	89.15	93.09
2-month Receivables	1011.5	1013.92
Maintenance spares @ 15% of O&M Expenses	160.46	167.57
Less: One-month Power Purchase Cost	446.47	430.91
Less: Consumer Security Deposit	763.51	836.58
Total Working Capital	51.13	7.1
Rate of Interest on WC	10.00%	10.00%
Interest on WC	5.11	0.71

Commission's Analysis

4.12.2 The Commission has computed IoWC in accordance with the MYT Regulations, 2018. The normative O&M expenses approved after true-up for FY 2021-22 in this Order have been considered. The working capital requirement towards two months of receivables has been considered based on the actual revenue earned by APDCL in FY 2021-22. The average amount of Consumer Security Deposit (CSD) for FY 2021-22 has been taken from the Audited Accounts, after deducting the CSD of the permanently disconnected consumers, in accordance with the approach adopted in previous years.

4.12.3 The amount towards one-month of power purchase cost has been reduced from the

normative working capital requirement. In accordance with the previous approach, the Commission has reduced the cost of power purchase from Power Exchange, as approved after true-up, while computing the working capital requirement, as APDCL does not get one-month credit for payment of these bills. The rate of Interest has been considered equal to the weighted average SBI MCLR Rate in FY 2021-22, i.e 10.00%.

4.12.4 The IoWC approved by the Commission in the truing up for FY 2021-22 is shown in the following Table:

Table 24: IoWC approved by the Commission for FY 2021-22 (Rs. Crore)

Sl.no	Particulars	Tariff Order	APDCL Petition	Approved after True-up
1	O&M Expenses for 1 Month	89.15	93.09	92.89
2	Maintenance spares @ 15% of O&M Expenses	160.46	167.57	167.21
3	2 months equivalent of expected revenue from sale of electricity	1,011.50	1,013.92	1,013.92
4	Less: 1 month of Power Purchase Cost	446.47	430.91	430.60
5	Less: Amount held as Consumer Security Deposit	763.51	836.58	925.15
6	Total Working Capital Required	51.13	7.10	(81.72)
7	Interest rate	10.00 %	10.00%	10.00%
8	Interest on Working Capital	5.11	0.71	-

4.12.5 Therefore, Interest on Working Capital in the truing up for FY 2021-22 is approved Nil, as the net working capital requirement is negative.

4.13 Interest on Consumer Security Deposit

4.13.1 APDCL submitted that the Commission had approved Rs. 38.06 Crore as interest on CSD for FY 2021-22. However, actual interest liability on CSD as per the Audited Accounts for FY 2021-22 is Rs. 71.78 Crore.

4.13.2 APDCL submitted that the amount of interest on CSD amounting to Rs. 71.78 Crore is to be liquidated with energy bills for respective consumers. Actual payment during the year is Rs. 52.68 Crore. APDCL has hence sought pass through of the actual Interest on CSD of Rs. 52.68 Crore, in the true-up for FY 2021-22 and requested the Commission to allow pass

through of the remaining amount as and when payment is made.

Commission's Analysis

- 4.13.3 The Commission has approved the actual interest paid by APDCL on CSD in the true-up for FY 2021-22, as shown in the Table below:

Table 25: Interest on CSD approved for FY 2021-22 (Rs. Crore)

Particulars	Tariff Order	APDCL	Approved after True-up
Interest Actually Paid	38.06	52.68	52.68

The Commission approves the actual interest on CSD of Rs. 52.68 Crore paid by APDCL to the consumers, in the truing up for FY 2021-22.

4.14 Other Debits

- 4.14.1 APDCL submitted that the Commission had approved an amount of Rs. 22.10 Crore as provision for bad and doubtful debts in the Tariff Order February 15, 2021. APDCL submitted that an amount of Rs. 27.19 Crore equivalent to 1% of amount receivable as on 31.03.2022 is entitled to be claimed in this Petition.

Commission's Analysis

- 4.14.2 The Commission has allowed the actual provision for bad and doubtful debts of Rs 27.19 Crore as claimed by APDCL, based on the audited accounts for FY 2021-22.

Therefore, under Other Debits, the Commission approves Rs. 27.19 Crore in the truing up for FY 2021-22.

4.15 Exceptional Items

- 4.15.1 APDCL submitted that the Commission has not allowed any amount on this head in its earlier tariff orders. Although an amount of Rs. 227.80 Crore on account of waiver of unpaid interest on State Govt. loan was accounted for during the consequent to decision of Hon'ble State Cabinet; the same is not to be adjusted herein as no such

interest was allowed in previous orders.

4.15.2 Hence, no adjustment is made on this account in the True up ARR for FY 2021-22.

Commission's Analysis

4.15.3 The Commission is of the view that since APDCL has not claim under exceptional item.

Therefore, the Commission considers NIL as net exceptional amount in the truing up for FY 2021-22.

4.16 Return on Equity

4.16.1 APDCL submitted that the Commission had considered equity base of Rs.474.41 Crore and allowed return @16% on the equity base.

4.16.2 APDCL requested the Commission to allow RoE amounting to Rs 95.03 Crore in the True-Up of FY 2021-22, considering the enhanced equity levels.

Commission's Analysis

4.16.3 The Commission asked APDCL to submit the basis and computation for addition of equity of Rs. 862.39 Crore and permissible average equity of Rs. 593.96 Crore in FY 2021-22 with respect to the GFA addition during the year, funding pattern of such addition to GFA in FY 2021-22, limit to conversion of grant and loan to equity as per AERC MYT Regulations. APDCL has replied that GoA has converted Rs. 3359.32 Crore grant to equity. Hence, after consideration of normative equity of 30% of total asset value, balance Rs. 862.39 Crore has been added to the equity. The Commission has assessed the computation of APDCL and considers Rs. 857.18 Crore in addition to equity.

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

Table 26: RoE approved by the Commission for FY 2021-22 (Rs. Crore)

Sl.no	Particulars	Tariff Order	APDCL	Approved
1	Opening Equity Balance	474.41	162.77	162.77
2	Addition During the Year	-	862.39	857.18
3	Closing Equity Balance	474.41	1,025.16	1,019.95
4	Average Equity Balance	474.41	593.96	591.36

Sl.no	Particulars	Tariff Order	APDCL	Approved
5	Rate of Return (%)	16.00%	16.00%	16.00%
6	Return on Equity	75.91	95.03	94.62

Therefore, the Commission approves RoE of Rs. 94.62 Crore in the truing up for FY 2021-22.

4.17 Other Income

4.17.1 APDCL submitted that the Commission had approved Other Income of Rs. 356.82 Crore in the Tariff Order for FY 2021-22, against which APDCL has submitted Other Income of Rs. 458.22 Crore as per the Audited Accounts for FY 2021-22.

Commission's Analysis

4.17.2 The Commission has considered the actual Other Income as per the Audited Accounts in the true up for FY 2021-22, except for 'Revenue from Sale of LEDs, Tube light, Fan, etc.', which has been considered net of cost of such equipment, as shown in the Table below :

Table 27: Other Income approved by the Commission for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Tariff Order	APDCL Petition	Approved after true up
1	Interest on fixed deposits	94.09	48.30	48.30
2	Income from Trading	148.23	352.69	352.69
3	Income from Sale of Scrap	0.23	2.09	2.09
4	Revenue from sale of LED's, Tube light Fan, etc.	0.11	0.10	0.00
5	Rent from residential buildings	0.02	0.02	0.02
6	Receipt from Pension Trust	67.10	29.18	29.18
7	Miscellaneous receipts	47.04	25.85	25.85
	Total	356.82	458.22	458.13

Therefore, the Commission approves Other Income of Rs. 458.13 Crore in the true up for FY 2021-22.

4.18 Non-Tariff Income

4.18.1 APDCL submitted that it has earned Rs.498.51 Crore of Non-Tariff Income during FY 2021-22 against approved amount of Rs 395.62 Crore.

Commission's Analysis

4.18.2 In line with the approach adopted in the previous Orders, the Commission has not considered the rebate received on prompt payment of power purchase bills, as NTI.

4.18.3 The Commission has considered all other heads of Non-Tariff Income as per the Audited Accounts, in the true up for FY 2021-22. 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 28: Non-Tariff Income approved by the Commission for FY 2021-22 (Rs. Crore)

Sl.No	Particulars	Tariff Order	APDCL	Approved
1	Meter Rent	24.43	25.84	25.84
2	Compensation charges for theft of energy/malpractices	0.42	0.19	0.19
3	Rental receipt of plant and equipment			
4	Cross Subsidy surcharge on Open Access Consumer	37.25	7.50	7.50
5	Wheeling Charges collected	4.77	4.78	4.78
6	Short-term Open Access Credit	60.06	36.06	36.06
7	Rebate on PP bills		38.71	-
8	Receipts from renting plant and machinery			
9	Miscellaneous Recoveries	23.64	38.34	38.34
10	Other Miscellaneous and General Charges (specify)	-		
	a) Delayed payment charges	239.57	344.37	344.37
	b) Transformer Maintenance			
	c) Income on Reactive Power	0.21	-	-
	d) Income from SCED	5.36	2.74	2.74
	Grand Total	395.62	498.51	459.81

4.18.4 Therefore, the Commission approves Non-Tariff Income of Rs. 459.81 Crore in the

truing up for FY 2021-22.

4.19 Revenue Grant/Subsidy

- 4.19.1 APDCL submitted that the Commission has approved the tariff on gross basis without factoring the targeted subsidy allowed to various category of consumers by Govt. of Assam. Total amount of targeted subsidy booked during FY 2021-22 as per the statement of accounts is Rs. 459.70 Crore.
- 4.19.2 APDCL submitted that the Commission has considered Rs. 400 Crore tariff subsidy from Govt. of Assam. However, only Rs. 363 Crore has been received against the same. And Rs. 100 Crore pertaining to previous year (released during FY22) was not considered herein as the same was already adjusted in the true up for FY 2020-21 by Commission.
- 4.19.3 APDCL requested the Commission to considered grant/subsidy amount of Rs. 363 Crores as support for respective purposes, with the targeted subsidy of Rs. 459.70 Crore already considered under Revenue from sale of electricity, in the true-up of ARR for FY 2021-22.

Commission's Analysis

- 4.19.4 The amount of Rs 459.70 Crore received from GoA against targeted subsidy for FY 2021-22 has already been considered by the Commission as a part of revenue from sale of power.
- 4.19.5 As regards the Revenue Grant to facilitate liquidation of outstanding power purchase liabilities, while APDCL has received only Rs. 363 Crore out of the total amount of Rs. 400 Crore committed by the GoA, the Commission has considered the total amount of Rs. 400 Crore as subsidy support from GoA. It is for APDCL to ensure that the Subsidy amount committed by GoA in the Budget is received.
- 4.19.6 **The Commission accordingly considers Other Subsidy of Rs. 400 Crore in the Truing Up for FY 2021-22.**

4.20 Revenue from Sale of Power

- 4.20.1 APDCL submitted that against the approved revenue Rs. 5668.98 Crore, the actual revenue collected from sale of power within the state amounted to Rs. 6083.55 Crore (including

targeted subsidy).

Commission's Analysis

4.20.2 APDCL, in its Petition, has claimed Revenue from Sale of power as per the Audited Accounts, i.e., Rs. 6083.55 Crore (including targeted subsidy of Rs. 459.70 Crore from Govt. of Assam).

4.20.3 Accordingly, the Commission approves the revenue of Rs. 6,083.55 Crore in the Truing up for FY 2021-22.

4.21 ARR and Revenue Gap/(Surplus) after Truing Up of FY 2021-22

4.21.1 Considering the above heads of expense and revenue approved after truing up for FY 2021-22, the Net ARR and Revenue Gap/(Surplus) for FY 2021-22 is shown in the following Table:

Table 29: ARR & Revenue Gap/(Surplus) approved in the Truing up for FY 2021-22 (Rs. Crore)

Sl.No	Particular	Tariff Order	APDCL	Approved
1	Power Purchase Expenses	5444.22	5,917.01	5913.24
2	O&M Expenses	1069.76	1,454.76	1182.23
a)	Employee Expenses	813.58	1,156.19	886.11
b)	R&M Expenses	210.62	246.02	245.71
c)	A&G Expenses	45.56	52.56	50.42
3	Depreciation	16.65	40.02	36.80
4	Interest and Finance Charges	24.31	9.23	10.26
5	Interest on Working Capital	5.11	0.71	-
6	Interest on CSD	38.06	52.68	52.68
7	Return on Equity	75.91	95.03	94.62
8	Income Tax			
9	Other Debits, incl Provisioning for Bad Debts	22.10	27.19	27.19
10	Reduction in Power Purchase cost due to excess losses		-77.82	-107.99
11	Sharing of gains/(losses) on		-11.90	-37.24

Sl.No	Particular	Tariff Order	APDCL	Approved
	account of O&M expenses			
12	Total Expenditure	6,696.12	7,506.93	7171.79
13	Less: Non-Tariff Income	395.62	498.51	459.81
14	Less: Other Income	356.82	458.22	458.13
15	Aggregate Revenue Requirement	5,943.68	6,550.20	6253.85
16	Revenue Gap with CC after True Up of FY 2019-20	125.31	125.31	125.31
17	Revenue Gap with CC after True Up of FY 2020-21			
18	Net Revenue Requirement	6,068.98	6,675.51	6379.16
	Revenue			
19	Revenue at Approved/Existing Tariff	5,668.98	6,083.55	6,083.55
20	State Government Targeted Subsidy			
21	GoA subsidy against loss in perpetuity due to COVID			-
22	Other Subsidy for Power Purchase	400.00	363.00	400.00
23	Total Revenue incl. subsidy	6,068.98	6,446.55	6,483.55
24	Cumulative Revenue Gap/(Surplus)	0.00	228.98	(104.39)

The Commission approves a Revenue Surplus of Rs. 104.39 Crore after truing up for FY 2021-22 and the same has been considered for adjustment during FY 2023-24, with the associated carrying cost.

5 Annual Performance Review (APR) for FY 2022-23

5.1 Introduction

- 5.1.1 The Commission vide its Multi Year Tariff Order dated March 21, 2022 had approved the revised ARR for FY 2022-23. This Chapter deals with APR for FY 2022-23 in accordance with the provisions of MYT Regulations, 2021, based on the submissions made by APDCL.
- 5.1.2 Regulation 9.3 of the MYT Regulations, 2021 specifies that the Commission shall undertake the APR and True-up for the respective years of the Control Period from FY 2022-23 to FY 2024-25, as reproduced below:

*“9.3 The scope of the **Annual Performance 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 Performance Review:** a comparison of the performance targets estimated to be achieved for the current financial year (based on 6 months actual data) with the approved forecast for that financial year including adjusting trajectories of uncontrollable if needed.” (emphasis added)*

- 5.1.3 APDCL submitted the APR Petition for FY 2022-23, supported by actual information available till September 2022 and estimated values for the next six months of FY 2022-23.
- 5.1.4 The main objective of APR is to compare the actual performance for FY 2022-23 vis-à-vis approved forecast in the MYT Order for FY 2022-23 to FY 2024-25 dated March 21, 2022. **The Revenue Gap/(Surplus) arising out of APR for FY 2022-23 has not been passed on to the consumers, and the same shall be considered at the time of Truing-up only.**
- 5.1.5 In this Chapter, the Commission has analysed the revised estimate of all the components of ARR vis-à-vis values approved in MYT Order for FY 2022-23 to FY 2024-25. The Commission has computed the Revenue Gap/(Surplus) as an indication of the performance

in FY 2022-23. **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 2022-23.**

5.2 Energy Sales

- 5.2.1 The Commission vide MYT Order for FY 2022-23 to FY 2024-25, had approved energy sales of 9068 MU. APDCL has estimated energy sales for FY 2022-23, based on the actual performance during first half (H1) of FY 2021-22 and projected for next half with the values as approved in the MYT order dated March 21, 2022, considering practicability of the estimates.
- 5.2.2 APDCL submitted that there is a marginal decrease of around 25 MU in revised energy sales vis-à-vis approved energy sales.
- 5.2.3 APDCL requested the Commission to approve the revised energy sales of 9043 MU in the APR for FY 2022-23. APDCL has projected the category-wise energy sales for FY 2022-23 as shown in the Table below:

Table 30: Category-wise Energy Sales Projected by APDCL for FY 2022-23 (MU)

Sl.no	Category	Approved	Projected actual
	LT GROUP		
1	Jeevan Dhara 0.5 kW and 1kWh/day	479	370
2	Domestic A	3,932	4,253
3	Domestic-B above 5 kW to 25 kW	504	533
4	Commercial Load above 0.5 to 25 kW	952	790
5	General Load upto 25 kW (Non-Comml & Non-Domestic)	141	133
6	General Load upto 25 kW (Govt. Primary/Sec./Hr.Sec. Schools)		8
7	Public Lighting	18	23
8	Agriculture up to 7.5 hp	63	41
9	Small Industries Rural up to 25 kW	98	80
10	Small Industries Urban	36	30

Sl.no	Category	Approved	Projected actual
11	EV Charging station		0.02
12	Temporary	6	15
	LT TOTAL	6228	6277
	HT GROUP		
1	HT Domestic 25 kW and above	21	20
2	HT commercial 25 kW & above	411	404
3	Public Water works	92	91
4	Bulk Supply-Govt. Edu Inst	80	81
5	Bulk Supply-Others	380	437
6	HT Small Industries upto 50 kW	18	17
7	HT Industries-I 50kw to 150 kW	106	74
8	HT Industries-II above 150 kW (Option 1 - ToD)	1,171	885
9	HT Industries-II above 150 kW (Option 2 - Non-ToD)		142
10	Tea, Coff & Rub (Total)	478	490
11	Oil & Coal	65	108
12	HT Irrigation Load above 7.5 hp	15	18
13	HT Temporary	1	-
14	HT EV Charging	1	0.61
15	HT Railway Traction	-	0.01
16	HT Electric crematorium		0.17
	HT Total	2,840	2,767
	All Total	9,068	9,043

Commission's Analysis

5.2.4 The category-wise energy sales estimated by APDCL for FY 2022-23 have been accepted, as APDCL has based the same on half-year actuals. The category-wise sales estimated by APDCL and approved by the Commission in the APR for FY 2022-23 are given in the Table below:

Table 31: Energy Sales considered by the Commission for FY 2022-23 (MU)

Consumer Category	MYT Order	APDCL	Approved in APR
Jeevan Dhara 0.5 kW and 1kWh/day	479	370	370
Domestic A	3,932	4,253	4,253
Domestic-B above 5 kW to 25 kW	504	533	533
Commercial Load above 0.5 to 25 kW	952	790	790
General Load upto 25 kW (Non-Commercial & Non-Domestic)	141	133	133
General Load upto 25 kW (Govt. Primary/Sec./Higher. Sec. Schools)		8	8
Public Lighting	18	23	23
Agriculture up to 7.5 hp	63	41	41
Small Industries Rural up to 25 kW	98	80	80
Small Industries Urban	36	30	30
EV Charging station		0.02	0.02
Temporary	6	15	15
LT TOTAL	6,228	6,277	6,277
HT Domestic 25 kW and above	21	20	20
HT commercial 25 kW & above	411	404	404
Public Water works	92	91	91
Bulk Supply-Govt. Edu Inst	80	81	81
Bulk Supply-Others	380	437	437
HT Small Industries upto 50 kW	18	17	17
HT Industries-I 50kw to 150 kW	106	74	74
HT Industries-II above 150 kW (Option 1 - ToD)	1,171	885	885
HT Industries-II above 150 kW (Option 2 - Non-ToD)		142	142
Tea, Coff & Rub (Total)	478	490	490
Oil & Coal	65	108	108
HT Irrigation Load above 7.5 hp	15	18	18
HT Temporary	1	-	-
HT EV Charging	1	0.61	1
HT Railway Traction	-	0.01	0
HT Electric crematorium		0.17	0.2
HT Total	2,840	2,767	2,767
All Total	9,068	9,043	9,043

Therefore, the Commission considers total sales of 9043 MU in the APR for FY 2022-23.

5.3 Distribution Loss

- 5.3.1 The Commission in the MYT Order dated March 21, 2022 had approved Distribution Loss of 15.00% for FY 2022-23. APDCL has estimated the Distribution Loss for FY 2022-23 as 16.50% in line with approved trajectory under RDSS.
- 5.3.2 APDCL submitted that over the years, it has been able to reduce the losses gradually except for the years with massive rural electrification, i.e., FY 2009-10, FY 2011-12, and FY 2018-19. It is evident that with IT interventions like implementation of AI based software to do away with human interventions are yielding dividends.
- 5.3.3 APDCL requested the Commission to approve the Distribution Loss of 16.50 % in the APR of FY 2021-22 in line with approved trajectory under RDSS.

Commission's Analysis

- 5.3.4 The Commission has already elaborated on the issue of Distribution Loss in this Order, while Truing up for FY 2021-22. The Commission is of the view that APDCL has reported close to approved distribution loss levels till FY 2017-18, even when there was significant increase in the LT consumers on account of household electrification.
- 5.3.5 In the MYT Order dated March 21, 2022, the Commission had approved Distribution Loss of 15.00% for FY 2022-23. The Commission, based on the contentions of APDCL such as inverse LT:HT ratio and massive electrification under SAUBHAGYA, had approved such Distribution Loss levels for APDCL. Therefore, the approved Distribution Loss of 15.00% already takes into account the aspects mentioned by APDCL.
- 5.3.6 The Commission has therefore, considered the Distribution Loss for FY 2022-23 as approved in the MYT Order dated March 21, 2022 as shown in the Table below:

Table 32: Distribution Losses considered by the Commission for FY 2022-23

Particulars	MYT Order dtd.15.02.2021	APDCL Projection	Approved in APR
Distribution Loss (%)	15.00%	16.50%	15.00%

5.4 Energy Balance

5.4.1 APDCL has considered the revised estimates for energy requirement for FY 2022-23 based on the revised estimates of energy sales and Distribution Losses. APDCL has submitted that it has considered the intra-State transmission losses as 3.27%, as approved in MYT Order dated March 21, 2022. The inter-State (PGCIL) losses have been considered as 1.90%, based on the actual losses in FY 2021-22.

5.4.2 The estimated Energy Balance for FY 2022-23 as submitted by APDCL is shown in the following Table:

Table 33: Energy Balance for FY 2022-23 as projected by APDCL (MU)

Sr.No.	Particulars	MYT Order dt. 21.03.2022	APDCL
1	Retail Energy Sale	9,068	9,043
2	Distribution loss (%)	15.00%	16.50%
3	Distribution loss	1,600	1,787
4	Energy requirement at DISCOM periphery	10,669	10,830
5	STU Loss (%)	3.27%	3.27%
6	STU Loss	361	366
7	Energy requirement at STU periphery	11,029	11,196
8	CTU Loss (%)	1.90%	1.90%
9	CTU Loss	224	217
10	Seasonal Export	494	1,472
11	Energy requirement	11,747	12,885

Commission's Analysis

5.4.3 The Commission has approved the Energy Balance in the APR for FY 2022-23 based on the estimated sales, approved Distribution Loss, approved Transmission Loss trajectory for AEGCL, and proportionate PGCIL Losses on external power purchase. The Energy Balance approved by the Commission in the APR for FY 2022-23 is shown in the Table below:

Table 34: Energy Balance for FY 2022-23 considered by the Commission (MU)

Sr. No.	Particulars	Tariff Order	APDCL	Approved in APR
1	Energy sales	9,068	9,043	9,043
2	Distribution Loss (%)	15.00%	16.50%	15.00%
3	Distribution Loss	1,600	1,787	1,596
4	Energy Requirement at T<>D periphery	10,669	10,830	10,639
5	Intra-State Transmission Loss	3.27%	3.27%	3.27%
6	Intra-State Transmission Loss (%)	361	366	360
7	Energy input to Transmission System	11,029	11,196	10,999
8	Inter-State Pooled Loss (%)	1.90%	1.90%	1.74%
9	Inter-State Pooled Loss	224	217	221
10	Seasonal Export	494	1,472	1,472
11	Total Energy Requirement	11,747	12,885	12,691

Therefore, the Commission considers total Power Purchase Requirement of 12,691 MU after APR for FY 2022-23.

5.5 Power Purchase

5.5.1 APDCL submitted that it is largely dependent on APGCL and CGS Stations for meeting the Base Load. However, to meet the Peak Demand of the State, APDCL has tied up certain bilateral power and also purchases power from Power Exchanges.

5.5.2 The power purchase quantum and cost for FY 2022-23 have been estimated based on actuals for first half of the year and estimated for second half of the year.

5.5.3 APDCL submitted that it has projected the source-wise power purchase for FY 2022-23 based on the following assumptions:

- **APGCL:** APDCL has firm allocation of power from the State generating stations of APGCL. Thermal plants of APGCL include NTPS, LTPS and LRPP. Hydro plants of

APGCL supplying power to APDCL are MeHEP and KLHEP. For projecting the energy availability from these stations, APDCL has considered gross energy availability based on allocated capacity and historical PLF, and Auxiliary consumption for these plants in recent past with the status of operation. The tariff for these generating stations has been considered as per the latest Tariff Order of APGCL.

- **Central Generating Stations (NER):** The key CGS of North Eastern Region (NER) supplying power to APDCL include plants of NEEPCO, NHPC, OTPC and NTPC (Thermal). The share allocation of the various plants of CGS (NER) has been considered based on the latest Regional Energy Accounts (REA), while Plant Load Factor (PLF) has been considered based on past year actuals. Operational norms have been considered as approved by Central Electricity Regulatory Commission (CERC) in respective Tariff Orders. The latest available inter-State transmission loss of 1.90% is considered while intra-State transmission loss is considered at 3.27%. The cost for the CGS has been considered as per the latest CERC orders for the respective plants.
- **Central Generating Stations (Eastern Region):** The share allocation of the various plants of CGS (ER) has been considered based on the latest Regional Energy Accounts (REA). Operational parameters of these plants have been considered based on the actual generation. APDCL is allocated power from Farakka I & II, Kahalgaon I, Kahalgaon II and Talcher of NTPC located in ER. Moreover 5 MW from NTPC ER Stations are also allocated as Bundled power with Solar under JNNM. The cost for the CGS has been considered as per the latest CERC Orders for the respective plants.
- **Other Sources:** For HPPCL, PLF and auxiliary consumption is considered as per the Commission's Order dated April 12, 2013. Similarly, levelized tariff is considered as approved in this Order.
- Power available from NVVN Solar Bundled (JNNM) and NVVN Coal Bundled (JNNM) has been considered based on FY 2020-21 (True up) and actuals for FY 2021-22 (H1). For Suryataap Solar, normative parameters have been considered and rate is as per latest Tariff Order of the Commission (Rs. 8.78/kWh). For SECI (Solar) JNNM, energy charge rate has been considered on the basis of FY 2021-22 (True up) and actuals for FY 22-23 (H1).

- Shortfall of peak demand has been estimated to be mitigated through IEX platform considering the reasonable rates.
- Deviation Settlement Mechanism is a practical aspect of all power transaction on real time basis and hence considered at a nominal level.
- **Renewable sources:** APDCL has projected to meet the Renewable Purchase Obligation (RPO) by mix of purchase power from wind, solar power projects and allocation from large hydro power stations, some of which are still in the pipeline. Assam Electricity Regulatory Commission (Renewable Purchase Obligation and Compliance) Regulations, 2022 (gazette notification dated 18.04.2022) has aligned the trajectory with the Ministry of Power Order No. 23/03/2016-R&R dated 29.01.2021. Revised trajectory notified on 22.07.22 by Ministry of Power is as under:

RPO trajectory notified by MoP

Year	Wind RPO	HPO	Other RPO	Total
2022-23	0.81%	0.35%	23.44%	24.60%
2023-24	1.60%	0.66%	24.81%	27.07%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

Wherein, Wind RPO- energy from WPP commissioned after 31.03.22

HPO- energy from LHP (incl. PSP) commissioned after 08.03.19

Other RPO- all sources not covered above i.e., Solar, hydro (other than LHP after 08.03.19), Biomass etc.

The Storage Obligation trajectory has also been included as under:

Storage trajectory notified by MoP

Year	Energy storage
2023-24	1.00%
2024-25	1.50%
2025-26	2.00%
2026-27	2.50%
2027-28	3.00%
2028-29	3.50%
2029-30	4.00%

Wherein, at least 85% energy storage in the Energy Storage System (ESS) shall be with energy procured from RE sources.

In view of a paradigm shift in the regulations, entire procurement plan has to be readjusted with massive cost implication with the typical load profile.

APDCL is participating and procuring real powers through G-DAM/G-TAM within its constrained resources. APDCL requested that permission to continue with the prevailing RE power arrangements.

➤ **Impact of increased gas prices**

APDCL sources around 24% of the total energy from gas based thermal power stations governed by gas prices as fixed by Ministry of Petroleum and Natural Gas, Govt. of India. There has been significant increase in prices of gas during this year over previous year. The same has got further aggravated with money depreciation with respect to US Dollar. The revised rate at current exchange rates are considered for the purpose of projection.

Approved domestic natural gas prices at \$/MMBTU for last four years is depicted in table below:

Price of domestic natural gas

	Apr - Sep	Oct - Mar
FY 19-20	3.69	3.23
FY 20-21	2.39	1.79
FY 21-22	1.79	2.90
FY 22-23	6.10	8.57

Estimated financial implication on APDCL consequent to the latest upward revision has been assessed as Rs. 710.55 Crore over corresponding period of last year as under:

FY 2021-22 Actuals

Effective gas price (\$/MMBTU)	2.90	2.90	2.90	2.90	2.90	2.90	2.90
Effective Exchange Rate (Rs./\$)	73.56	74.92	74.50	75.37	74.44	75.00	74.63

Actual energy charges (Rs. Cr.)

	Oct'21	Nov'21	Dec'21	Jan'22	Feb'22	Mar'22	Total
NTPS	2.12	2.28	2.38	2.30	1.90	3.96	14.94
NRPP	16.86	10.41	8.97	6.73	9.49	7.63	60.09
LTPS	10.20	9.59	10.65	6.96	9.15	9.83	56.38
LRPP	7.17	6.77	7.54	7.75	7.45	7.41	44.10
AGBPP	14.90	15.35	18.78	16.69	17.94	21.55	105.21
AGTTP	7.88	8.22	8.04	8.10	7.41	6.03	45.68
Total::	59.13	52.63	56.37	48.53	53.33	56.42	326.40

Revised rate

Effective gas price (\$/MMBTU)	8.57	8.57	8.57	8.57	8.57	8.57	8.57
Effective Exchange Rate (Rs./\$)	80.23						80.23

Cost of corresponding period of FY 22 at Revised rate (Rs. Cr.)	187.86	167.19	179.08	154.18	169.42	179.23	1,036.95
Incremental cost over corresponding period of FY 22 (Rs. Cr.)	128.72	114.56	122.71	105.65	116.09	122.81	710.55

APDCL submitted the actual energy charges for gas-based thermal stations as under:

Reference period	Energy charge rate (Rs./kWh)			NG Price (US\$/MMBTU)	Ex. Rate (Rs./US\$)
	APGCL	NEEPCO- AGBPP	NEEPCO- AGTPP		
Apr'21 - Sep'21	1.08	1.27	1.73	1.79	73.93
Apr'22 - Sep'22	3.68	4.32	4.27	6.10	78.53
Oct'22	4.96	5.80	5.63	8.57	82.34
Sep'21 - Mar'22	1.88	2.21	2.42	2.90	75.08
Apr'21 - Mar'22	1.49	1.73	2.07	2.35	74.50

APDCL requested the Commission to take due cognizance of the magnitude of financial implication due to this increase in the price of gas and its impact on power supply.

- **Inter-State and Intra-State charges:** PGCIL Transmission Charges have been projected based on actuals in H1 of FY 2022-23. The AEGCL Transmission Charges and SLDC Charges have been considered same as approved in latest Tariff Order of AEGCL and SLDC.

5.5.4 APDCL requested the Commission to approve the revised estimates of the power purchase quantum and cost of the utility in the APR for FY 2022-23 as shown below:

Table 35: Power Purchase for FY 2022-23 as submitted by APDCL (Rs. Crore)

Sl. No.	Agency/Source	MYT Order dt. 21.03.22			APDCL		
		Total Quantum	Total Cost	Rate	Total Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./ kWh	MU	Rs. Crore	Rs./ kWh
1	APGCL	2162.25	754.24	3.49	2,118.92	1,251.39	5.91
2	NEEPCO (HYDRO)						
	KOPILI I	-	-	-	-	0.25	
	KOPILI II	-	-	-	-	0.22	
	KHANDONG	147.04	25.97	1.77	-	0.62	
	RHEP	506.99	132.42	2.61	564.95	144.85	2.56
	DHEP	60.39	39.79	6.59	73.17	68.23	9.32
3	NEEPCO (HYDRO) New						
	KAMENG HEP	248.24	100.45	4.05	312.52	125.12	4.00
4	NEEPCO (TH)						
	AGBPP	982.92	358.96	3.65	945.21	680.88	7.20
	AGTPP	401.64	169.33	4.22	363.32	242.62	6.68
5	NHPC Loktak HEP	172.38	57.94	3.36	144.96	57.41	3.96
6	NHPC New						
	SUBANSIRI HEP	190.33	139.89	7.35	111.02	59.84	5.39
7	NTPC (Existing)						
	FARAKKA	214.16	96.24	4.49	235.78	111.82	4.74
	KAHELGAON - I	103.87	36.49	3.51	116.91	54.35	4.65

Sl. No.	Agency/Source	MYT Order dt. 21.03.22			APDCL		
		Total Quantum	Total Cost	Rate	Total Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./ kWh	MU	Rs. Crore	Rs./ kWh
	KAHELGAON -II	455.10	155.18	3.41	548.51	251.22	4.58
	TALCHER	148.39	42.71	2.88	143.48	40.31	2.81
8	NTPC (New) BTPS	2511.18	1476.24	5.88	3,090.37	1,896.64	6.14
9	Pare HEP	183.77	100.65	5.48	200.11	100.13	5.00
10	Suryatap Solar	6.12	5.38	8.79	6.00	5.27	8.78
11	JNNSM Bundled Solar power	6.09	7.62	12.51	6.98	8.56	12.27
12	SECI Solar	37.79	23.54	6.23	38.22	23.18	6.07
13	JNNSM Bundled Coal power	28.24	10.54	3.73	2.72	5.78	21.24
14	Bilateral Sources/Traders	-	-	-	-	-	-
15	Power Exchanges	0.00	0.00	4.64	1,441.20	1,019.35	7.07
16	OTPC	1339.65	462.23	3.45	1,496.84	420.76	2.81
17	HHPCL (Champawati)	8.60	3.69	4.29	8.73	4.08	4.67
18	Wind Power PTC	115.19	40.66	3.53	104.06	36.73	3.53
19	SECI Wind	148.50	40.40	2.72	144.76	39.37	2.72
20	Mangdechhu	594.33	255.37	4.30	502.91	233.49	4.64
21	PTC Nikachu	-	-	-	-	-	-
22	SPV Assam (Azure Power)	140.82	46.86	3.33	116.26	38.74	3.33
23	Punatsangchhu HEP-I	-	-	-	-	-	-
24	Punatsangchhu HEP-II	206.30	86.44	4.19	-	-	-
25	Amguri Solar Park	99.40	39.56	3.98	70.95	29.35	4.14

Sl. No.	Agency/Source	MYT Order dt. 21.03.22			APDCL		
		Total Quantum	Total Cost	Rate	Total Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./ kWh	MU	Rs. Crore	Rs./ kWh
26	Additional Solar RE Power Purchase	218.74	72.79	3.33	0.29	0.10	3.45
27	Additional Non-Solar RE Power Purchase	308.89	84.03	2.72			
28	Deviation Settlement Mechanism				(23.96)	(18.43)	7.69
	Sub-total:	11747.31	4865.61	4.16	12,885.22	6,932.22	5.38
29	AEGCL Transmission Charges		459.48		-	437.52	0.34
30	SLDC Charges		6.50				
31	PGCIL Transmission Charges		699.56		-	669.30	0.63
32	TOTAL POWER PURCHASE	11747.31	6031.15	5.13	12,885.22	8,039.05	6.24

Commission's Analysis

- 5.5.5 The Commission has accepted APDCL's submissions regarding projected energy availability from existing and new generating stations. The quantum of power purchase from APGCL is kept in line with the generation approved for APGCL in the APR of FY 2022-23. However, the quantum of purchase from Power Exchanges have been revised considering the actual sale in FY 2021-22 and H1 of FY 2022-23 except for procurement from Subansiri HEP where in H1 there has not been any procurement and in FY 2023-24, APDCL itself has not projected any procurement from here. Hence, in FY 2022-23 for APR purposes zero procurement is considered from here.
- 5.5.6 The Commission has considered the rate of purchase from various sources based on the following approach:
- a) Cost of power purchase from APGCL has been revised as proposed by APDCL due to hike in generation cost of the thermal stations of APGCL;
 - b) The Transmission Charges payable to AEGCL and SLDC Charges have been considered as the Revenue estimated by APDCL for APR purpose.
 - c) The Commission has accepted the fixed charges and energy charges considered by APDCL for CGS (NER and ER);
 - d) The Commission has considered the actual fixed and variable cost in H1 of FY 2022-23 for other sources, for estimating power purchase cost for FY 2022-23;
 - e) The Commission has considered the balance quantum of purchase from Power Exchange to meet the total energy requirement of APDCL, as approved in the Energy Balance earlier in this Order. The Commission has considered average rate of actual procured during H1 and estimated for H2 for whole procurement of whole year for APR purpose.
- 5.5.7 The source-wise power purchase quantum and costs provisionally approved by the Commission in the APR for FY 2022-23, is shown in the Table below:

Table 36: Power Purchase Quantum and Cost approved by the Commission for the FY 2022-23

Sl. No.	Agency/Source	MYT Order dt. 21.03.22			APDCL			Approved APR		
		Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs. / kWh)	Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs. / kWh)	Quantum (MU)	Total Cost (Rs. Cr)	Average Rate (Rs. / kWh)
1	APGCL	2162.25	754.24	3.49	2,118.92	1,251.39	5.91	2,118.92	1,251.39	5.91
2	NEEPCO (HYDRO)									
	KOPILI I	-	-	-	-	0.25	-	-	0.25	-
	KOPILI II	-	-	-	-	0.22	-	-	0.22	-
	KHANDONG	147.04	25.97	1.77	-	0.62	-	-	0.62	-
	RHEP	506.99	132.42	2.61	564.95	144.85	2.56	564.95	144.85	2.56
	DHEP	60.39	39.79	6.59	73.17	68.23	9.32	73.17	68.23	9.32
3	NEEPCO (HYDRO) New									
	KAMENG HEP	248.24	100.45	4.05	312.52	125.12	4.00	312.52	125.12	4.00
4	NEEPCO (TH)									
	AGBPP	982.92	358.96	3.65	945.21	680.88	7.20	945.21	680.88	7.20
	AGTPP	401.64	169.33	4.22	363.32	242.62	6.68	363.32	242.62	6.68
5	NHPC Loktak HEP	172.38	57.94	3.36	144.96	57.41	3.96	144.96	57.41	3.96
6	NHPC New									
	SUBANSIRI HEP	190.33	139.89	7.35	111.02	59.84	5.39			
7	NTPC (Existing)									
	FARAKKA	190.33	139.89	7.35	111.02	59.84	5.39	111.02	59.84	5.39

Sl. No.	Agency/Source	MYT Order dt. 21.03.22			APDCL			Approved APR		
		Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs. / kWh)	Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs. / kWh)	Quantum (MU)	Total Cost (Rs. Cr)	Average Rate (Rs. / kWh)
	KAHELGAON – I	214.16	96.24	4.49	235.78	111.82	4.74	235.78	111.82	4.74
	KAHELGAON -II	103.87	36.49	3.51	116.91	54.35	4.65	116.91	54.35	4.65
	TALCHER	455.10	155.18	3.41	548.51	251.22	4.58	548.51	251.22	4.58
	FARAKKA-III	148.39	42.71	2.88	143.48	40.31	2.81	143.48	40.31	2.81
8	NTPC (New) BTPS	2511.18	1476.24	5.88	3,090.37	1,896.64	6.14	3,090.37	1,896.64	6.14
9	Pare HEP	183.77	100.65	5.48	200.11	100.13	5.00	200.11	100.13	5.00
10	Suryatap Solar	6.12	5.38	8.79	6.00	5.27	8.78	6.00	5.27	8.78
11	JNNSM Bundled Solar power	6.09	7.62	12.51	6.98	8.56	12.27	6.98	8.56	12.27
12	SECI Solar	37.79	23.54	6.23	38.22	23.18	6.07	38.22	23.18	6.07
13	JNNSM Bundled Coal power	28.24	10.54	3.73	2.72	5.78	21.24	2.72	5.78	21.24
14	Bilateral Sources/Traders	-	-	-	-	-	-	-	-	-
15	Power Exchanges	0.00	0.00	4.64	1,441.20	1,019.35	7.07	1,357.29	831.04	6.12
16	OTPC	1339.65	462.23	3.45	1,496.84	420.76	2.81	1,496.84	420.76	2.81
17	HHPCPL (Champawati)	8.60	3.69	4.29	8.73	4.08	4.67	8.73	4.08	4.67
18	Wind Power PTC	115.19	40.66	3.53	104.06	36.73	3.53	104.06	36.73	3.53
19	SECI Wind	148.50	40.40	2.72	144.76	39.37	2.72	144.76	39.37	2.72
20	Mangdechhu	594.33	255.37	4.30	502.91	233.49	4.64	502.91	233.49	4.64
21	PTC Nikachu	-	-	-	-	-	-	-	-	-
22	SPV Assam (Azure Power)	140.82	46.86	3.33	116.26	38.74	3.33	116.26	38.74	3.33

Sl. No.	Agency/Source	MYT Order dt. 21.03.22			APDCL			Approved APR		
		Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs. / kWh)	Quantum (MU)	Cost (Rs. Cr.)	Average Rate (Rs. / kWh)	Quantum (MU)	Total Cost (Rs. Cr)	Average Rate (Rs. / kWh)
23	Punatsangchhu HEP-I	-	-	-	-	-	-	-	-	-
24	Punatsangchhu HEP-II	206.30	86.44	4.19	-	-	-	-	-	-
25	Amguri Solar Park	99.40	39.56	3.98	70.95	29.35	4.14	70.95	28.24	3.98
26	Additional Solar RE Power Purchase	218.74	72.79	3.33	0.29	0.10	3.45	0.29	0.10	3.45
27	Additional Non-Solar RE Power Purchase	308.89	84.03	2.72	-	-	-	-	-	-
28	UI Pool/Deviation Settlement Mechanism	-23.95	-18.43	7.69	-23.95	-18.43	7.69	-22.96	-18.43	8.03
	Sub-total::	11,747.31	4,865.61	4.14	12,885.21	6,932.22	5.38	12,691.27	6,701.39	5.27
29	AEGCL Transmission Charges		459.48			437.52			427.94	
30	SLDC Charges		6.50						6.95	
31	PGCIL Transmission Charges		699.56			669.30			669.30	
32	Total Power Purchase	11747.31	6031.15	5.13	12,885.21	8,039.04	6.24	12,691.27	7,787.15	6.14

Therefore, the Commission considers total Power Purchase Cost of Rs. 7787.15 Crore in the APR for FY 2022-23

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 37: O&M Expenses projected for FY 2022-23 by APDCL (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL
Employee expenses	835.92	866.81
R&M Expenses	278.52	267.97
A&G expenses	75.92	57.70
Total O&M Expenses	1190.36	1192.47

Employee Expenses

5.6.2 APDCL has adopted the following approach for estimating Employee Cost:

- The employee expenses considered in the true-up for FY 2021-22 have been considered as base expenses for FY 2021-22;
- CPI inflation has been computed as average increase of CPI index for the period from FY 2019-20 to FY 2021-22, which works out to 5.89%;
- With no recruitment, no growth factor has been considered.

5.6.3 The Employee Cost as projected by APDCL for FY 2022-23 is shown in the table below.

Table 38: Employee Expenses projected for FY 2022-23 by APDCL (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL
Employee Expenses of Previous year	792.13	818.57
Growth Factor	0%	0%
CPI Inflation	5.53%	5.89%
Employee Expenses	835.92	866.81

Particulars	MYT Order dt. 21.03.22	APDCL
Total Employee Expenses	835.92	866.81

APDCL has projected the normative Employee expenses of Rs. 866.81 Crore, for FY 2022-23.

Repair and Maintenance (R&M) Expenses

5.6.4 APDCL has projected R&M expenses based on the MYT Regulations, 2021. APDCL has considered the 'K' factor as 3.10% and the WPI has been considered as 5.32%. APDCL has projected R&M expenses at Rs.267.97 Crore for FY 2022-23 as shown in the Table below:

Table 39: R&M Expenses for FY 2022-23 as submitted by APDCL (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL
Average GFA of previous year	8,616.62	8,207.25
K factor	3.10%	3.10%
WPI inflation	4.13%	5.32%
R&M Expenses	278.52	267.97

Administrative and General (A&G) Expenses

5.6.5 APDCL has projected A&G expenditure based on the MYT Regulations, 2021. The Petitioner has considered WPI of 5.32% or FY 2022-23. APDCL has projected A&G expenditure at Rs.57.70 Crore for FY 2022-23 as shown in the Table below:

Table 40: A&G Expenses for FY 2022-23 as submitted by APDCL (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL
A&G Expenses for previous year	71.09	52.56
WPI inflation	4.13%	5.32%
Statutory Fees	1.89	2.35
A&G Expense	75.92	57.70

Commission's Analysis

5.6.6 The Commission has computed the normative O&M Expenses for FY 2022-23 as per the MYT Regulations, 2021. 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 the MYT Regulations, 2021 at the time of truing up for FY 2022-23.

Employee Expenses

5.6.7 For computation of employee expenses for FY 2022-23, the Commission has adopted the following approach:

- a) The average of actual employee expenses for the period from FY 2017-18 to FY 2021-22 has been escalated by applicable CPI inflation factor for FY 2020-21 and FY 2021-22, to derive the base expense for FY 2022-23, which works out to Rs. 790.95 Crore
- b) CPI inflation has been computed as average increase of CPI index for the period from FY 2019-20 to FY 2021-22, which works out to 5.89%;
- c) The growth factor has been considered as 0%, due to no recruitment.
- d) APDCL claimed an amount of Rs. 337.62 Cr against DCRG for NPS employees as per Audited Statement of Accounts in their true-up petition for FY 2021-22. The Commission decided to approve recovery of the amount over a period of 5 years as it is a provisioning based on an actuarial valuation.

5.6.8 Accordingly, the normative employee expenses approved in the APR for FY 2022-23 are shown in the following Table:

Table 41: Employee Expenses considered for FY 2022-23 (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL Petition	Approved after APR
Employee Expenses for Previous Year	792.13	818.57	790.95
Growth Factor	0%	0%	0%
CPI Inflation	5.53%	5.89%	5.89%

Particulars	MYT Order dt. 21.03.22	APDCL Petition	Approved after APR
Employee Expenses	835.93	866.81	837.57
Add: Provision for DCRG under NPS	-	-	67.52
Total Employee Expenses	835.93	866.81	905.09

Accordingly, the Commission approves Employee Expenses of Rs. 905.09 Cr in the APR for FY 2022-23.

R&M Expenses

5.6.9 For computation of R&M Expenses for FY 2022-23, the Commission has considered the following approach:

- The Commission has considered the average increase of WPI index of FY 2019-20 to FY 2021-22, i.e., 5.32% for computation of R&M expenses;
- K-factor has been considered as 3.10% as approved in the Tariff Order;
- Since, K-factor has been computed on the basis of average GFA, for working out R&M expenses for FY 2022-23, average GFA for previous year has been considered.

5.6.10 The normative R&M expenses approved for FY 2022-23 are shown in the following Table:

Table 42: Approved R&M Expenses for FY 2022-23 (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL Petition	Approved after APR
Average GFA for previous year	8,616.62	8,207.25	8,184.28
K Factor	3.10%	3.10%	3.10%
WPI Inflation	4.13%	5.32%	5.32%
R&M Expenses	278.52	267.97	267.22

Therefore, the Commission approves R&M Expenses of Rs. 267.22 Crore in the APR for FY 2022-23.

A&G Expenses

5.6.11 For computation of A&G expenses for FY 2022-23, the Commission has adopted the following approach:

- a) The average of actual A&G expenses for the period from FY 2017-18 to FY 2021-22 has been escalated by applicable WPI inflation factor for FY 2020-21 and FY 2021-22, to derive the base expense for FY 2022-23, which works out to Rs. 95.14 Crore
- b) The A&G expenses approved after Truing up for FY 2021-22 have been considered as base expenses for FY 2022-23;
- c) Similar to R&M expenses, WPI inflation has been considered as 5.32%;
- d) The actual statutory fees of Rs. 2.35 crore of FY 2021-22 have been considered as a separate pass-through item, and added to the normative A&G expenses computed for FY 2022-23 as above.

5.6.12 The normative A&G expenses approved in the APR for FY 2022-23 are shown in the following Table:

Table 43: A&G Expenses considered for FY 2022-23 (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL Petition	Approved after APR
A&G Expenses for Previous Year	71.09	52.56	95.14
WPI Inflation	4.13%	5.32%	5.32%
Statutory Fees (pass through at actuals)	1.89	2.35	2.35
A&G Expenses	75.92	57.70	102.56

Therefore, the Commission approves A&G Expenses of Rs. 102.56 Crore in the APR for FY 2022-23.

5.7 Capital Investment & Financing of Capital Investment

5.7.1 APDCL submitted that it has estimated the capital expenditure and capitalisation

in the APR for FY 2022-23 based on the estimates of the capital expenditure works carried out till date vis-à-vis budgetary allocation and pending Capital Works in Progress (CWIP).

- 5.7.2 APDCL has projected the capital expenditure and capitalisation for FY 2022-23 as Rs. 752.06 Crore and Rs. 1691.93 Crore, respectively, as shown in the Table below:

Table 44: Proposed financing of Capitalization for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	Amount
A	Opening Balance of CWIP	5177.42
B	Fresh CAPEX during the year	752.06
C	Investment capitalised out of opening CWIP	1691.93
D	Investment capitalised out of fresh investment	
	Total Capitalisation during the year (C+D)	1691.93
	Closing Balance of CWIP (A + B - C - D)	4237.54

Capitalisation

Debt	166.83
Grant	1525.10
Total	1691.93

Commission's Analysis

- 5.7.3 The Commission has verified the actual capitalization achieved by APDCL in the past three years, i.e., FY 2019-20 to FY 2021-22, as shown in the Table below:

Table 45: Actual Capitalization for FY 2019-20 to FY 2021-22 (Rs. Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
Actual Capitalisation	1,343.09	2,158.17	505.32

- 5.7.4 As seen from the above Table, based on the actual capitalization of last three years, it can be observed that capitalisation increased in FY 2020-21 and then decreased to Rs 505.32 Cr. Hence, the Commission has considered capitalisation for FY 2022-23 based on average capitalisation for last 3 years, i.e., Rs 1,340

Crore.

- 5.7.5 It is clarified that APDCL is at liberty to achieve capitalisation higher than the considered amount. The Commission will approve the Capitalisation at the time of truing up, subject to prudence check.
- 5.7.6 The Commission has not considered any equity funding of the estimated capitalisation, based on APDCL's submissions, and has considered the capitalisation to be funded through Grants and Debt in the standard ratio of 90:10, based on past experience.
- 5.7.7 The Capitalisation and funding of Capitalisation approved by the Commission in the APR of FY 2022-23, is given in the Table below:

Table 46: Capitalization and Funding for FY 2022-23 (Rs. Crore)

Particulars	MYT Order dt. 21.03.22	APDCL Petition	Approved after APR
Grant	1587.60	1,525.10	1,206.00
Equity	0.00	0.00	0.00
Debt	32.40	166.83	134.00
Total Capitalisation	1620.00	1,691.93	1,340.00

Therefore, the Commission provisionally approves Capitalisation of Rs. 1340.00 Crore in the APR for FY 2022-23.

5.8 Depreciation

- 5.8.1 The Commission had approved depreciation of Rs. 46.82 Crore for FY 2022-23 in the MYT Order dated 21 March 2022.
- 5.8.2 APDCL submitted that Depreciation has been claimed in accordance with the MYT Regulations, 2021, after apportionment of depreciation for assets created out of Consumer Contribution and Grants. APDCL added that fully depreciated assets have been excluded from the asset base for the purpose of calculating depreciation and rates of depreciation notified in the MYT Regulations have been considered. Total amount of depreciation claimed by APDCL is Rs. 101.29 crore

for FY 2022-23.

**Table 47: Depreciation calculation for FY 2022-23 as submitted by APDCL
(Rs. Crore)**

Particulars	As on 01.04.21	Net addition during the year	Rate of Dep	On OB	On Additi on	Total
Land & Rights						
i) Land owned under full title	18.97	0.07		-	-	-
ii) Leasehold land	2.84	-	3.34%	0.08	-	0.08
Sub total:	21.81	0.07		0.08	-	0.08
Building	58.72	1.88	3.34%	0.96	0.03	0.99
Intangible assets	29.37	-	3.34%	0.88	-	0.88
Other Civil Works	71.14	12.88	3.34%	1.52	0.19	1.71
Plant & Machinery	828.12	129.20	5.28%	29.17	3.07	32.24
Lines & Cable Network	1,711.80	337.86	5.28%	60.24	8.03	68.26
Vehicles	27.24	-	5.28%	0.74	-	0.74
Furniture & Fixtures	19.75	1.34	6.33%	0.53	0.04	0.57
Office Equipment	52.14	18.01	6.33%	1.56	0.51	2.08
SUB TOTAL	2,820.10	501.24	3.81%	95.68	11.87	107.55
Add: Consumer contribution deducted from service connection under O.H. lines & cable network	233.81	-	5.28%	11.11	-	11.11
Add: Assets not belonging to the entity	5,411.99	1,190.69			-	-

Particulars	As on 01.04.21	Net addition during the year	Rate of Dep	On OB	On Additi on	Total
Total	8,465.90	1,691.93		106.79	11.87	118.66
Depreciable assets	8,465.90	1,691.93		106.79	11.87	118.66

Table 48: Depreciation claimed by APDCL for FY 2022-23 (Rs. Crore)

Particulars	Non- depreciable Land	Depreciable	Non- depreciable	Total
Opening GFA	18.97	2,801.13	5,645.80	8,465.90
Opening CWIP	-	3,475.11	1,702.31	5,177.42
Grant	-	365.30	8,908.53	9,273.83
Depreciation charged	-	107.55	-	107.55
Average rate		3.84%		
Apportioned GFA after adjustment of grant		2638.09		
Apportioned depreciation claimed		101.29		

Commission's Analysis

- 5.8.3 For computation of depreciation, the Commission has considered the closing GFA for FY 2021-22 as approved in this Order, as the Opening GFA for FY 2022-23. The capitalisation approved for FY 2022-23 has been considered as asset addition during the year. The Commission has considered the scheduled depreciation rates as specified in MYT Regulations, 2021.
- 5.8.4 As per the MYT Regulations, 2021, the total depreciation during the life of the asset shall not exceed 90% of the original cost of GFA. The Commission has computed the depreciation separately for assets added under each asset head in each year. The Commission has disallowed the depreciation on assets where depreciation is in excess of 90% of the original cost of asset under different asset

heads. The Commission has not considered depreciation on assets funded through grants in accordance with MYT Regulations, 2021.

5.8.5 In view of the above, the Commission has approved depreciation for FY 2022-23 as per MYT Regulations, 2021, as given in the Table below:

Table 49: Depreciation approved by the Commission for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	Opening GFA	Addition during the year	Rate of depreciation	Depreciation as per MYT Regulations, 2021
1	Land owned	18.79	0.06	0.00%	-
2	Leasehold Land	2.84		3.34%	0.09
3	Building	58.72	1.49	3.34%	3.07
4	Plant & Machinery	828.13	102.33	5.28%	74.17
5	Vehicle	27.24		5.28%	1.46
6	Furnitures & Fixtures	19.75	1.06	6.33%	1.96
7	Office Equipment	52.53	14.26	6.33%	15.66
8	Other Civil Work	71.14	10.20	3.34%	6.05
9	Lines & Cable Network	1711.81	267.58	5.28%	223.24
	Total	2791.13	396.98		325.71
11	Less: Assets built through CC	233.81			
12	Assets not belonging to entity	5412.00	943.02		
	Less: Depreciation for Grants/Consumer Contribution				164.81
12	Net Total	8436.94	1340.00		160.89

Accordingly, the Commission considers Depreciation of Rs. 160.89 Crore in the APR for FY 2022-23.

5.9 Interest and Finance Charges

5.9.1 APDCL submitted that the interest and finance charges have been claimed in line with the approach followed in Tariff Orders with addition of bank charges and facilitation charges paid to aggregator for online payment by consumers in line with approval of the Commission.

5.9.2 APDCL also submitted the following points in the context that the Commission has not allowed interest on RAPDRP Loan, interest on GPF, interest on NPS etc:

- At the time of unbundling, no funding was received against the accumulated GPF balance along with interest. The same was considered as a part of internal resources in the Asset Financing Structure on formation of the company. Considering the perennial resource crunch vis-à-vis pendency of approval from concerned authorities, no dedicated GPF could be formed. As most of the employees covered under GPF will be attaining superannuation within a very short span of time, formation of trust at this juncture doesn't seem operationally prudent. However, as per the terms of transfer scheme on unbundling, APDCL is committed to disburse the share of interest on GPF to every incumbent.
- All contributions under NPS are being deposited regularly to NSDL as per norms. However, APDCL is liable to pay interest for the period of delay in uploading or generation of PRAN etc.
- With bank accounts spread all across the State of Assam, APDCL is liable to pay various charges levied by banks viz. cash handling charges, remittance charges, and RTGS /NEFT charges wherever applicable.

5.9.3 APDCL submitted interest and finance charges for FY 2022-23 as shown in the Table below:

**Table 50: Interest and Finance Charges as submitted by APDCL for FY 2022-23
(Rs. Crore)**

Particulars	FY 2022-23
Opening normative loan	109.75
Addition of normative loan during the year	166.83

Particulars	FY 2022-23
Normative Repayment during the year	101.29
Net Normative Closing Loan	175.29
Rate of Interest	10.00%
Interest on Debt Capital	17.53
Total	17.53

Commission's Analysis

- 5.9.4 Interest on loan for FY 2022-23 is required to be allowed on normative basis as per the MYT Regulations, 2021. Accordingly, the normative closing loan for FY 2022-23 of Rs. 112.14 Crore is considered as the normative loan outstanding as on April 1, 2022.
- 5.9.5 The loan repayment has been considered equivalent to depreciation approved for FY 2022-23 in this Order. The Commission has considered the Interest rate of 10.00% as projected by APDCL.
- 5.9.6 The interest on loan capital approved by the Commission in the APR for FY 2022-23 is shown in the following Table:

Table 51: Interest and Finance Charges as approved by the Commission for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	MYT Order dt. 21.03.22	APDCL Petition	Approved after APR
1	Opening Normative Loan	227.06	109.75	112.98
2	Loan Addition	32.40	166.83	134.00
3	Loan Repayment	46.82	101.29	160.89
4	Closing Normative Loan	212.65	175.29	86.09
5	Average Loan	219.85	142.52	99.53
6	Interest Rate	10.00%	10.00%	8.41%
7	Interest Amount	21.98	17.53	8.37
8	Total Interest	21.98	17.53	8.37

Therefore, the Commission considers Interest on Loans of Rs. 8.37 Crore in the APR of FY 2022-23.

5.10 Interest on Working Capital

5.10.1 APDCL has claimed Rs. 10.77 Crore on account of Interest on Working Capital in the APR for FY 2022-23 in accordance with the MYT Regulations, 2021 as shown in the table below.

Table 52: Interest on Working Capital for FY 2022-23 (Rs Crore)

Particulars (in Rs. Crores)	Approved	Projected Actuals
O&M Expenses-One month	99.20	99.37
2-month Receivables	1229.99	1250.98
Maintenance spares @ 15% of O&M Expenses	178.55	178.87
Less: One-month Power Purchase Cost	502.60	584.97
Less: Consumer Security Deposit	916.64	836.58
Total Working Capital	88.50	107.67
Rate of Interest on WC	10.00%	10.00%
Interest on WC	8.85	10.77

Commission's Analysis

5.10.2 The Commission has computed the normative IoWC in accordance with the MYT Regulations, 2021, as shown in the Table below:

Table 53: IoWC approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	MYT Order dt. 23.03.2022	APDCL Petition	Approved after APR
O&M Expenses for one month	99.20	99.37	100.61
Maintenance spares @ 15% of O&M Expenses	178.55	178.87	181.10

Particulars	MYT Order dt. 23.03.2022	APDCL Petition	Approved after APR
2-month Receivables	1,229.99	1,250.98	1,178.14
Less: One-month Power Purchase Cost	502.60	584.97	579.68
Less: Consumer Security Deposit	916.64	836.58	977.99
Total Working Capital	88.50	107.67	(97.81)
Rate of Interest on WC	10.00%	10.00%	10.58%
Interest on Working Capital	8.85	10.77	-

Therefore, since the IOWC is negative, the Commission considers IoWC of Nil in the APR for FY 2022-23.

5.11 Interest on Consumers' Security Deposit

5.11.1 APDCL submitted that with successful roll out of software facilitating automatic adjustment of interest on security deposit in energy bills, the liquidation of liability on such account has significantly increased. Considering the improving trend, APDCL requested the Commission to allow an amount of Rs. 52.68 Crore (actuals for FY 2021-22).

Commission's Analysis

5.11.2 The Commission has considered the submission of APDCL for FY 2022-23.

Therefore, the Commission approved Interest on CSD of Rs. 52.68 Crore in the APR for FY 2022-23.

5.12 Other Debits

5.12.1 The Commission approved Rs. 16.60 Crore as 'Other debit' in the MYT Order for FY2022-23.

5.12.2 APDCL submitted that due to improving revenue collection trend of arrears, the petitioner has claimed 50% of claim made under true up petition for FY

2021-22 under the head of 'Other Debits' during APR of FY 2021-22.

- 5.12.3 Thus, APDCL requested for approval of an amount of Rs. 13.60 Crore under the head of 'Other Debits' during APR of FY 2022-23

Commission's Analysis

- 5.12.4 The Commission has considered the other debits including provision for bad & doubtful debts at the same level as claimed by APDCL. The provision for bad & doubtful debts will be finally approved at the time of truing up when actual data is available.

Therefore, the Commission allowed other debits including provision for bad & doubtful debts of Rs 13.60 Crore during APR of FY 2022-23.

5.13 Return on Equity

- 5.13.1 APDCL submitted that to materialize the conversion of loan/grant to equity, authorised share capital of APDCL has already been enhanced to Rs. 5000 Crore. State Cabinet has also accorded approval on conversion of outstanding loan of Rs. 930.91 Crore and grant of Rs. 3359.32 Crore as on 31.03.2021 to equity.

- 5.13.2 The RoE projected by APDCL for FY 2022-23 is shown in the Table below:

Table 54: Return on Equity projected by APDCL for FY 2022-23 (Rs. Crore)

Particulars	MYT Order dt. 23.03.2022	APDCL
Opening Equity	1366.50	1025.16
Net Addition during the Year	25.41	317.98
Closing Equity	1,391.91	1343.14
Average Equity	1,379.21	1184.15
GFA at the beginning of the year		8465.90
Normative equity for RoE		2539.77
Admissible Equity for RoE		1184.15

Particulars	MYT Order dt. 23.03.2022	APDCL
Rate of Return on Equity	14.00%	14.00%
Return on Equity	193.09	165.78

Commission's Analysis

- 5.13.3 The Commission has approved the Return on Equity in accordance with the MYT Regulations, 2021. The Commission has considered the closing equity of FY 2021-22 as trued up in this Order, as the opening equity for FY 2022--23.
- 5.13.4 The Commission has verified the documentary evidence submitted by APDCL for the conversion of Grants to Equity by the GoA in FY 2021-22.
- 5.13.5 In this regard, it should be noted that in accordance with the applicable Tariff notified by the Commission for different periods, the capitalisation till date has been approved based on the typical funding of 90:10 Grant:Debt, with zero equity funding. The applicable MYT Regulations specify that the Debt:Equity funding of capitalisation is to be considered, after reducing the capital cost to the extent of funding from Grant/Consumer Contribution. Further, equity funding can be considered up to maximum of 30% of the balance capitalisation to be funded, irrespective of the actual equity invested by the Licensee.
- 5.13.6 The conversion of Grants to Equity by the GoA in FY 2021-22 has to accordingly be considered in accordance with the Commission's MYT Regulations, 2021. The GoA has converted Grants worth Rs. 3359.32 Crore to equity, out of the total average Grants of Rs. 7956.40 Crore in FY 2022-23. The GoA has also converted outstanding loan of Rs. 930.91 Crore to equity. Hence, the balance Grant funding available to fund the Average GFA of Rs. 8436.55 Crore works out to Rs. 4597.08 Crore, i.e., the GFA to be funded by Debt:Equity is Rs. 3839.47 Crore. Considering maximum 30% equity funding, the maximum equity funding allowable works out to Rs. 1151.84 Crore. As the Opening Equity of Rs. 1019.95 Crore has already been allowed by the Commission in the Tariff Orders, the maximum additional

equity that can be considered for tariff computation purposes, on account of conversion of Grants to Equity, thus, works out to Rs. 131.89 Crore. Further, no conversion of loan to equity has been considered, as the maximum permissible equity has already been allowed, as shown in the Table below:

Table 55: Equity Addition allowed by the Commission due to Conversion of Grant to Equity in FY 2022-23 (Rs. Crore)

Sr. No.	Particulars	Approved in APR
1	Average GFA	8436.55
2	Average Grant towards GFA	7,956.40
3	Grants converted to Equity	3359.32
4	Net Grant towards GFA	4,597.08
5	Net GFA to be funded	3,839.47
6	Maximum Equity that can be considered	1,151.84
7	Equity already allowed	1,019.95
8	Equity that can be additionally allowed	131.89

5.13.7 The Commission has accordingly considered equity addition of Rs. 131.89 Crore in FY 2022-23, and approved the RoE in accordance with MYT Regulations, 2021. The Commission has considered the addition of Nil equity towards new Capitalisation for FY 2022-23, based on the funding of capitalisation approved in this Order.

5.13.8 The Commission has approved the RoE in accordance with MYT Regulations, 2021 at 14%, as shown in the Table below:

Table 56: Return on Equity approved by the Commission for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	MYT Order DT. 21.03.2022	APDCL Petition	Approved after APR
1	Opening Equity Balance	1391.91	1,025.16	1019.95
2	Equity Addition During the Year	9.72	317.98	131.89
3	Closing Equity Balance	1,401.63	1,343.14	1151.84
4	Average Equity Balance	1,396.77	1,184.15	1,085.90

Sl. No.	Particulars	MYT Order DT. 21.03.2022	APDCL Petition	Approved after APR
5	Max. Permissible Equity	1,401.63	1,343.14	1,167.65
6	Rate of Return (%)	14.00%	14.00%	14.00%
7	Return on Equity	195.55	165.78	152.03

Therefore, the Commission considers RoE of Rs. 152.03 Crore in the APR of FY 2022-23.

5.14 Non-Tariff Income

5.14.1 APDCL submitted that the Non-Tariff Income for FY 2022-23 has been projected by escalating various heads of actual non-tariff income for FY 2021-22 by 5% except for the Delayed Payment Surcharge, which has been kept at the same level, considering the present rate of recovery.

5.14.2 APDCL requested the Commission to approve Non-Tariff Income of Rs 406.22 Crore for FY 2022-23, as shown in the Table below:

Table 57: Non-Tariff Income as submitted by APDCL for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	APDCL
1	Rentals from Meters, Service Lines, Capacitors etc.	27.13
2	Income from recoveries on account of theft of energy/ Malpractices	0.20
3	Delayed payment charges from Consumers	244.37
4	Misc. recoveries	40.26
5	Rebate on prompt payment of Power purchase bills	40.64
5	Cross Subsidy surcharge on Open Access Consumer	7.87
6	Wheeling charges collected	5.02
7	Short Term Open Access (STOA) credit	37.86
8	Income on Reactive Power	0.00
9	Income From SCED	2.87
	Total	406.22

Commission's Analysis

5.14.3 The Commission has not considered rebate on Power Purchase bills, as such rebate has not been provided by Gol/CGS for FY 2022-23. The actual income under all other heads of NTI in FY 2021-22 has been escalated by 5%, to estimate the NTI for FY 2022-23.

5.14.4 The Non-Tariff Income considered by the Commission for FY 2022-23 is shown in the Table below:

Table 58: Non-Tariff Income as approved by the Commission for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	MYT Order dt. 21.03.2022	APDCL Petition	Approved after APR
1	Meter Rent	25.05	27.13	27.13
2	Compensation charges for theft of energy/malpractices	0.83	0.20	0.20
3	Rental receipt of plant and equipment	-	-	-
4	Cross Subsidy surcharge on Open Access Consumer	14.73	7.87	7.87
5	Wheeling Charges collected	4.99	5.02	5.02
6	Short-term Open Access Credit	59.08	37.86	37.86
7	Rebate on PP bills		40.64	-
8	Receipts from renting plant and machinery	-	-	-
9	Miscellaneous Recoveries	26.48	40.26	40.26
10	Other Miscellaneous and General Charges (specify)			
	a) Delayed payment charges	283.09	244.37	344.37
	b) Transformer Maintenance	-	-	-
	c) Income on Reactive Power	0.25	-	-
	d) Income from SCED	3.70	2.87	2.87
	Grand Total	418.21	406.22	465.58

Therefore, the Commission considers Non-Tariff Income of Rs. 465.58 Crore in the APR of FY 2022-23.

5.15 Other Income

5.15.1 APDCL submitted that all heads of 'Other Income' are estimated on the basis of actuals for FY 2021-22 (True up) except for the following:

- a) Miscellaneous receipt is escalated by 5%.
- b) Seasonal export is based on surplus energy estimate for FY 2022-23 level, at Rs. 150 Crore
- c) With high attrition ratio, receipt from pension trust is considered with 20% decline.

5.15.2 Accordingly, APDCL has estimated Other Income as Rs 684.10 Crore, as shown in the table below:

Table 59: Other Income as submitted by APDCL for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	APDCL
1	Interest on loans to staff	
2	Interest on HB advances to staff	
3	Receipt from sale of LED bulb, Tubelight, Fan, etc.	0.11
4	Interest from banks and Investment	42.50
5	Gain on sale of fixed assets	
6	Rent from residential buildings	0.02
7	Miscellaneous receipts	27.14
8	Income from Sale of Scrap	2.19
9	Receipt from Pension Trust	23.34
10	Income on seasonal Export of surplus power	588.80
	Total	684.10

Commission's Analysis

5.15.3 The Commission has projected the Other Income for FY 2022-23, by considering

an increase of 5% over the Trued-Up Other Income during FY 2021-22, except for Interest on Fixed Deposits and income from sale of scrap, which have been considered at FY 2021-22 levels. The revenue from sale of surplus power/Trading has been considered based on actuals of H1 of FY 2022-23.

5.15.4 The Commission has approved Other Income in the APR for FY 2022-23 as shown in the Table below:

Table 60: Other Income as approved by the Commission for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	MYT Order dt. 23.03.2022	APDCL Petition	Approved after APR
1	Interest on fixed deposits	77.74	42.50	48.30
2	Income from Trading	156.21	588.80	588.80
3	Income from Sale of Scrap	0.12	2.19	2.09
4	Revenue from sale of LED's, Tubelight, Fan etc.	0.02	0.11	0.00
5	Rent from residential buildings	0.02	0.02	0.02
6	Receipt from Pension Trust	50.13	23.34	30.64
7	Miscellaneous receipts	18.08	27.14	27.14
	Total	302.32	684.10	696.99

Accordingly, the Commission has considered Other Income of Rs. 696.99 Crore in the APR for FY 2022-23.

5.16 Revenue from Sale of Power

5.16.1 APDCL submitted that the Commission had approved amount of Rs. 6980 Crore as revenue from retail consumers for FY 2022-23 in the Tariff Order. The revenue from sale of electricity for FY 2022-23 has been considered based on actual tariff

rate vis-à-vis consumer profile and FPPPA levied.

5.16.2 APDCL submitted that for the purposes of estimating the revenue from sale of electricity at existing tariff, APDCL has considered the full-cost tariff, without considering any targeted subsidy.

5.16.3 APDCL requested the Commission to allow an amount of Rs. 7506 Crore as revenue from sale of power in the APR for FY 2022-23. APDCL submitted that the increase is primarily driven by additional FPPPA levied.

Commission's Analysis

5.16.4 The Commission has estimated the Revenue from sale of electricity at existing tariff based on the applicable tariff, as per the MYT Order dated March 21, 2022, and the projected category-wise sales for FY 2022-23. 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. FPPPA levied during the year shall be adjusted during true -up for FY 2022-23 in the ARR of FY 2024-25.

5.16.5 **The Revenue from Sale of Electricity from existing tariff has been computed by the Commission as Rs. 7068.84 Crore in the APR for FY 2022-23.**

5.17 Power Purchase Subsidy from GoA

5.17.1 APDCL has considered the Power Purchase subsidy from GoA for FY 2022-23 as Rs. 190 Crore, based on the actual receipt of subsidy during the year.

Commission's Analysis

5.17.2 The Commission has considered the Power Purchase subsidy from GoA for FY 2022-23 as Rs. 400 Crore, based on the subsidy committed by GoA for the year.

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

5.18.1 Considering the above heads of expense and revenue provisionally approved in the APR for FY 2022-23, the summary of ARR and Revenue Gap/(Surplus) approved by the Commission in the APR for FY 2022-23 is given in the Table below:

Table 61: ARR & Revenue Gap/(Surplus) considered by the Commission for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	MYT Order dt. 21.03.2022	APDCL Petition	Approved after APR
1	Power Purchase Expenses	6,031.15	8,039.05	7,787.15
2	O&M Expenses	1,190.36	1,192.47	1,274.87
a)	<i>Employee Expenses</i>	<i>835.92</i>	<i>866.81</i>	<i>905.09</i>
b)	<i>R&M Expenses</i>	<i>278.52</i>	<i>267.97</i>	<i>267.22</i>
c)	<i>A&G Expenses</i>	<i>75.92</i>	<i>57.70</i>	<i>102.56</i>
3	Depreciation	46.82	101.29	160.89
4	Interest and Finance Charges	21.99	17.53	8.37
5	Interest on Working Capital	8.85	10.77	-
6	Interest on CSD	30.17	52.68	52.68
7	Return on Equity	193.09	165.78	152.03
8	Other Debits, incl. Provisioning for Bad Debts	16.60	13.60	13.60
	Total Expenditure	7,539.02	9,593.17	9,449.59
9	Less: Non-Tariff Income	418.21	406.22	465.58
10	Less: Other Income	302.32	684.10	696.99
11	Aggregate Revenue Requirement	6,818.49	8,502.85	8,287.02

Sl. No.	Particulars	MYT Order dt. 21.03.2022	APDCL Petition	Approved after APR
12	Revenue Gap with CC after True Up of FY 2020-21	561.47	561.46	561.47
13	Net Revenue Requirement	7,379.96	9,064.31	8,848.49
14	Revenue at Approved Tariff	6,979.96	7,505.89	7,068.84
15	Other Subsidy for Power Purchase	400.00	190.00	400.00
16	Total Revenue incl. subsidy	7,379.96	7,695.89	7,468.84
17	Cumulative Revenue Gap/(Surplus)	0.00	1,368.40	1,379.64

Accordingly, the Commission has arrived at a Revenue Deficit of Rs 1,379.64 Crore in the APR of FY 2022-23. The same has not been adjusted in this Order, as this is only a provisional number. The Revenue Gap/(Surplus) after true-up for FY 2022-23 shall be adjusted in the ARR of FY 2024-25.

6 Aggregate Revenue Requirement (ARR) for FY 2023-24

6.1 Introduction

6.1.1 This Chapter deals with determination of ARR for APDCL for FY 2023-24 in accordance with the provisions of MYT Regulations, 2021.

6.2 Energy Sales

6.2.1 Appropriate estimation of category-wise energy sales for the Control Period is essential to arrive at the quantum of power to be purchased and the likely revenue from sale of energy.

6.2.2 The following section examines in detail the consumer category-wise energy sales projected by APDCL in its Tariff Petition for FY 2023-24 and the category-wise sales approved by the Commission.

6.3 Category-Wise Projected Energy Sales

6.3.1 APDCL submitted that the Commission had approved energy sales of 9788 MU in the ARR for FY 2023-24 vide tariff order dated March 21, 2022. The projections of energy sales for FY 2023-24 have been revised based on actual energy sales for FY 2021-22 and historical growth trajectory.

6.3.2 The growth rates considered by APDCL for projection of category-wise sales are given in the Table below:

Table 62: Category-wise Growth Rates considered by APDCL for Sales Projection

CATEGORY	Rate of growth
Jeevan Dhara Domestic A 0.5kW to 5kW	9%
Domestic-B above 5 kW to 30kW	13%
Commercial Load above 0.5 to 30kW	6%
General Load upto 30 kW	7%
Public Lighting	9%
Agriculture upto 7.5hp	5%
Small Industries Rural upto 30kW	5%
Small Industries Urban	1%

CATEGORY	Rate of growth
Temporary	17%
HT Domestic 30kW and above	1%
HT commercial 30kW & above	6%
Public Water works	5%
Bulk Supply Govt. Edu Inst	6%
Bulk Supply Others	3%
HT Small Industries upto 50 kW	3%
HT Industries-I 50kw to 150 kW	4%
HT Industries-II above 150 kW	6%
Tea Coff & Rub	2%
Oil & Coal	10%
HT Irrigation Load above 7.5 hp	15%

6.3.3 The category-wise sales projected by APDCL are given in the Table below:

Table 63:Category-wise Energy Sales Projected by APDCL for the FY 2023-24 (MU)

Consumer Category	APDCL
JEEVAN DHARA	404
DOMESTIC A Total	4,641
Domestic-B above 5 kW to 30 kW	603
Commercial Load above 0.5 to 30 kW	836
General Load upto 30 kW (Non-Comml & Non-Domestic)	151
Public Lighting	25
Agriculture upto 7.5 HP	43
Small Industries Rural upto 30 kW	84
Small Industries Urban	30
LT Electric Vehicles Charging Stations	0
Temporary	18
LT TOTAL	6,834
HT Domestic 30 kW and above	20
HT commercial 30 kW & above	428
Public Water works	95
Bulk Supply Govt. Edu Inst	86
Bulk Supply Others	453
HT Small Industries upto 50 kW	17
HT Industries-I 50 kW to 150 kW	76

Consumer Category	APDCL
HT Industries-II above 150 kW (Option 1 - ToD)	1,087
Tea Coffee & Rubber	502
Oil & Coal	118
HT Irrigation Load above 7.5 HP	21
HT Temporary	-
HT Railway Traction	0.65
HT Electric Crematorium	0.01
HT Electric Vehicle Charging Station	0.18
HT TOTAL	2,904
TOTAL ENERGY SALES	9,738

Commission's Analysis

- 6.3.4 The sales to Jeevan Dhara consumers have been projected based on the 4-year CAGR for Domestic A category, as there has been lot of migration from Jeevan Dhara to Domestic A category, and there is no clear trend for Jeevan Dhara category, on account of the release of new connections under Saubhagya I and II and migration to Domestic A. The release of new connections is not expected to continue, whereas the migration to Domestic A is likely to continue, as the consumption levels of Jeevan Dhara consumers increase. For Domestic - A category, the same growth rate as projected by APDCL has been considered.
- 6.3.5 For the remaining consumer categories, the Commission has considered the actual category-wise sales for FY 2021-22. Further, growth rate is arrived at after analysing the 2-year, 3-year, 4-year, 5-year CAGR along with the Y-o-Y growth seen in sales to different consumer categories.
- 6.3.6 Reasonable estimates about the growth rates of the various consumer categories have been made to arrive at the energy sales forecast for the Control Period. In case the growth trend in recent years is negative, 0% growth rate has been considered for these consumer categories.
- 6.3.7 The growth rate considered for projecting the sales to different categories and the category-wise sales projected by the Commission for the FY 2023-24 are given in the Table below:

**Table 64: Category-wise Energy Sales Projected by the Commission for the FY 2023-24
(MU)**

Consumer Category	Growth Rate	FY 2023-24
JEEVAN DHARA	9%	403
DOMESTIC A Total	9%	4,636
Domestic-B above 5 kW to 30 kW	13%	602
Commercial Load above 0.5 to 30 kW	6%	837
General Load upto 30 kW (Non-Comml & Non-Domestic)	6%	141
General Load upto 30 kW (Govt. Primary/Sec./Hr.Sec. Schools)	6%	8
Public Lighting	10%	25
Agriculture upto 7.5 HP	5%	43
Small Industries Rural upto 30 kW	4%	83
Small Industries Urban	3%	30
LT Electric Vehicles Charging Stations		0.02
Temporary	16%	18
LT TOTAL		6,829
HT Domestic 30 kW and above	0%	20
HT commercial 30 kW & above	11%	449
Public Water works	5%	96
Bulk Supply Govt. Edu Inst	10%	88
Bulk Supply Others	5%	458
HT Small Industries upto 50 kW	0%	17
HT Industries-I 50 kW to 150 kW	4%	76
HT Industries-II above 150 kW (Option 1 - ToD)	6%	938
HT Industries-II above 150 kW (Option 2 - Non-ToD)		142
Tea Coffee & Rubber	3%	503
Oil & Coal	18%	128
HT Irrigation Load above 7.5 HP	7%	20
HT Temporary		-
HT Railway Traction		0.61
HT Electric Crematorium		0.01
HT Electric Vehicle Charging Station		0.17
HT TOTAL		2,936
TOTAL ENERGY SALES		9,765

Therefore, the Commission approves total sales of 9,765 MU for FY 2023-24.

6.4 Distribution Loss

- 6.4.1 APDCL submitted that the Commission in the MYT order dated March 21, 2022 had approved distribution loss of 14.75% for FY 2023-24
- 6.4.2 APDCL has projected distribution loss for FY 2023-24 in line with approved trajectory under RDSS at 15.80%.
- 6.4.3 APDCL submitted that over the years the utility has been able to bring down the losses gradually except for the years with massive rural electrification in 2009-10, 2011-12 and 2018-19.
- 6.4.4 APDCL further submitted that with the massive increase in LT consumers without adequate HT backbone, the stipulated distribution loss target of 15.00% will be very difficult to achieve. Considering all ground realities like ageing of assets, expansion of networks, constrained maintenance due to inadequate resources, system profile etc., the RDSS trajectory has been approved.
- 6.4.5 APDCL also submitted that the problem has got even aggravated with high attrition ratio vis-à-vis pendency of recruitment process due to some legal complications. However, it is expected that the recruitment process will attain its finality with the recent developments. Meanwhile, APDCL is also exploring various IT enabled measures like APDCL E-Suvidha, APDCL easy pay etc. to improve the efficiency in commensuration with the expanded consumer base vis-à-vis constrained resources
- 6.4.6 APDCL requested the Commission to consider the distribution loss of 15.80% for the FY 2023-24.

Commission's Analysis

- 6.4.7 It is observed from the submission of APDCL that there has been massive increase in LT Domestic consumers due to rural electrification. However, on the other hand, APDCL is making a huge investment towards system strengthening and system improvement.

Considering the above facts, at the time of finalizing the MYT Order, the Commission had approved a loss level of 14.75% for FY 2022-23, which is still above the loss level agreed under the UDAY MoU.

- 6.4.8 The Commission deems fit to consider the Distribution Loss at the MYT Order, level of 14.75% for FY 2023-24, considering the investments being undertaken by APDCL in

the Distribution System Enhancement and Revamped Distribution Sector Scheme.

Accordingly, the Distribution Loss is approved as 14.75% for the FY 2023-24.

6.5 Energy Balance

6.5.1 APDCL has submitted that for computing the energy requirement for the Control Period, APDCL has considered the intra-State Transmission Loss (AEGCL) loss at 3.25% as intimated by AEGCL.

6.5.2 The Energy Balance as projected by APDCL is shown in the following Table:

Table 65: Energy Balance for FY 2023-24 as Projected by APDCL (MU)

Particulars	MYT Order dt. 21.03.2022	APDCL
Energy Sales	9,788	9,738
Distribution Loss (%)	14.75%	15.80%
Distribution Loss (MU)	1,694	1,827
Energy Requirement at T_D Periphery	11,482	11,565
Intra-State (AEGCL) Transmission Loss (%)	3.25%	3.25%
Energy input to Transmission System	386	388
Energy Input to Transmission System	11,867	11,954
Inter-State (PGCIL) Pooled Loss (%)	1.90%	1.90%
Inter-State (PGCIL) Pooled Loss (MU)	243	232
Seasonal Export	667	1,558
Total Energy Requirement	12,776	13,743

Commission's Analysis

6.5.3 The Commission has approved the Energy Balance for the Control Period based on the projected sales, approved Distribution Loss trajectory, approved Transmission Loss trajectory for AEGCL, and estimated PGCIL Losses, as shown in the Table below:

Table 66: Energy Balance for FY 2023-24 approved by the Commission (MU)

Particulars	MYT Order dt. 21.03.2022	APDCL	Approved
Energy Sales	9,788	9,738	9,765
Distribution Loss (%)	14.75%	15.80%	14.75%
Distribution Loss (MU)	1,694	1,827	1,689
Energy Requirement at T_D Periphery	11,482	11,565	11,454
Intra-State (AEGCL) Transmission Loss (%)	3.25%	3.25%	3.25%
Energy input to Transmission System	386	388	385
Energy Input to Transmission System	11,867	11,954	11,839
Inter-State (PGCIL) Pooled Loss (%)	1.90%	1.90%	1.74%
Inter-State (PGCIL) Pooled Loss (MU)	243	232	210
Seasonal Export	667	1,558	
Total Energy Requirement	12,776	13,743	12,048

Therefore, the Commission approves total Energy Requirement of 12,048 MU for FY 2023-24. The revenue from the projected seasonal export has been considered under Other Income.

6.6 Power Purchase

6.6.1 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 sources power from short-term sources like Traders and Power Exchanges to meet the deficit.

6.6.2 APDCL submitted that the power purchase quantum and cost for the year has been estimated based on actuals for FY 2021-22 and H1 for FY 2022-23 and estimations as discussed below.

- **APGCL:** APDCL has firm allocation from all the existing thermal power plants of APGCL namely NTPS, NRPP, LTPS and LRPP and hydro plants namely MSHEP and KLHEP. And estimated the gross energy availability from the existing stations based on the allocated capacity and the actual PLF, Auxiliary consumptions for

these plants. Also the fixed as well as variable cost for the state generating stations has been considered as per the latest available information.

- **Central Generating Stations (NER & ER):** The key central generating stations of NER (North Eastern Region) supplying power to APDCL include plants of NEEPCO, NHPC, OTPC and NTPC. The share allocation of the various plants of CGS (NER) has been considered based on the latest REA. PLF has been considered based on the past year's actuals vis-à-vis shut down of plants. It is to be mentioned here that Kopili-I, Kopili II and Khandong Stations of NEEPCO are not considered due to its faulty machine. Operational norms are considered based on the values as approved by CERC in respective tariff orders of the plants.
- Power Purchase Cost for the central generating stations has been considered as per the latest available information for the respective plants.

- **Other Sources:** APDCL submitted that for HHPCL, PLF and auxiliary consumption have been considered as per AERC order dated April 12' 2013. Basis this, the generation from this source has been projected. The levelised tariff as determined for this plant in tariff order dated April 12' 2013 of Rs. 4.11/kWh has been considered.
- Generation from NVVNL Solar Bundled (JNN SM) and NVVNL Coal Bundled (JNN SM) for FY 2021-22 has been considered on the basis of latest available information.
- For Suryapratap Solar (SEIPL), normative parameters of the PLF and auxiliary consumption as approved by AERC have been considered. The rate for SEIPL has been considered as Rs. 8.78 per kWh as per latest AERC order.
- For SECI (Solar) JNN SM, energy charge rate has been considered as per the terms of the PSA.
- For Mangdechchu (Bhutan), the agreement tariff (including trading margin of 7 paisa) has been considered.
- Power from Nikachchu HEP (Bhutan) is estimated from 01.01.2024 as per latest available information and cost is estimated as per the terms of the PSA.
- APDCL has already moved for allocation of 495 MW of power from of 495 MW power from 3x660MW Neyveli Uttar Pradesh Power Limited (NUPPL), a joint

venture between NLC India and Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited. Detailed petition is already submitted before Commission.

- Shortfall of peak demand is estimated to be mitigated through IEX platform considering the reasonable rates.
- Deviation Settlement Mechanism is a practical aspect of all power transaction on real time basis and hence considered at a nominal level.
- Around 24% of total energy of APDCL is sourced from gas based thermal power stations governed by gas prices as fixed by Ministry of Petroleum and Natural Gas, Govt. of India.
- Price of domestic natural gas has increased manifold in recent times. The same has got further aggravated with money depreciation with respect to US Dollar.

Year	Apr - Sep	Oct - Mar
FY 19-20	3.69	3.23
FY 20-21	2.39	1.79
FY 21-22	1.79	2.9
FY 22-23	6.1	8.57

- The revised rate at current exchange rates are considered for the purpose of projection. And with the global development of affairs, the prices are expected to increase further.
- Estimated financial implication on APDCL consequent to the latest upward revision is assessed as Rs. 710.55 Crore over corresponding period of last year.
- **Renewable Sources:** APDCL submitted that with a paradigm shift on the new amendment in the AERC regulations, entire procurement plan has to be readjusted with massive cost implication with the typical load profile.
- Similar concerns were also raised by other stakeholders and some amendment was notified on September, 2022.
- However, APDCL is participating and procuring real powers through G-DAM/G-TAM within its constrained resources.
- Meanwhile, with active interventions from State Government various RE power projects are being considered for implementation by APDCL on its own. Petitions on the same will be submitted in due course before Commission.

- **Transmission -Inter State and Intra State Charges** – APDCL submitted that they have to pay transmission charges to PGCIL for use of transmission facilities enabling power drawl from national grid.
- The PGCIL charges for FY 2022-23 have been kept at projected level (till September'22).
- Further intra-state transmission charges and SLDC charges have been considered at the same level as approved by the Commission in AEGCL tariff order for FY 2022-23.
- The Petitioner requested the Commission to kindly approve the transmission and other charges for FY 2023-24 as submitted.

6.6.3 The following Table shows the power purchase quantum and cost submitted by APDCL for FY 2023-24 :

Table 67: Power Purchase Projected by APDCL for the FY 2023-24

SI No.	Agency/Source	Approved in MYT Order			APDCL		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
1	APGCL	2162.25	722.66	3.34	2148.05	1475.27	6.87
2	NEEPCO (HYDRO)						
	KOPILI I	475.71	124.64	2.62		0.25	
	KOPILI II					0.22	
	KHANDONG	147.04	25.97	1.77		0.62	
	RHEP	506.99	132.42	2.61	564.95	144.85	2.56
	DHEP	60.39	39.79	6.59	73.17	68.23	9.32
3	NEEPCO (HYDRO) New						
	KAMENG HEP	248.24	100.45	4.05	312.52	125.12	4.00
4	NEEPCO (TH)						
	AGBPP	982.92	358.96	3.65	945.21	752.40	7.96
	AGTPP	401.64	169.33	4.22	363.32	266.89	7.35
	AGTPP 2						
5	NHPC Loktak HEP	172.38	57.94	3.36	144.96	57.41	3.96
6	NHPC New						
	SUBANSIRI HEP	190.33	139.89	7.35			
7	NTPC (Existing)						
	FARAKKA	214.16	96.24	4.49	235.78	111.82	4.74
	KAHELGAON – I	103.87	36.49	3.51	116.91	54.35	4.65
	KAHELGAON -II	455.10	155.18	3.41	548.51	251.22	4.58
	TALCHER	148.39	42.71	2.88	143.48	40.31	2.81
	FARAKKA-III						
8	NTPC (New) BTPS	2511.18	1476.24	5.88	3090.37	1896.64	6.14

SI No.	Agency/Source	Approved in MYT Order			APDCL		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
9	Pare HEP	183.77	100.65	5.48	200.11	100.13	5.00
10	Suryatap Solar	6.12	5.38	8.79	6.00	5.27	8.78
11	JNNSM Bundled Solar power	6.09	7.62	12.51	6.98	8.56	12.26
12	SECI Solar	37.79	23.54	6.23	38.22	23.18	6.06
13	JNNSM Bundled Coal power	28.24	10.54	3.73	2.72	5.78	21.25
14	Bilateral Sources/Traders				-	-	
15	Power Exchanges	0.00	0.00	4.64	-	-	
16	OTPC Palatana	1339.65	462.23	3.45	1496.84	420.76	2.81
17	HHPCL (Champawati)	8.60	3.69	4.29	8.73	4.08	4.67
18	Wind Power PTC	115.19	40.66	3.53	104.06	36.73	3.53
19	SECI Wind	148.50	40.40	2.72	144.76	39.37	2.72
20	Mangdechhu	594.33	255.37	4.30	502.91	233.49	4.64
21	PTC Nikachu	374.10	127.03	3.40	46.67	16.26	3.48
22	SPV Assam (Azure Power)	140.82	46.86	3.33	116.26	38.74	3.33
23	Punatsangchhu HEP-I	242.07	101.43	4.19	-	-	
24	Punatsangchhu HEP-II	206.30	86.44	4.19	-	-	
25	Amguri Solar Park	99.40	39.56	3.98	70.95	29.35	4.14
26	Neyveli UP PL				2334.05	1052.66	4.51
27	Solar RE Power Purchase - balance to meet RPO	188.96	62.88	3.33	0.29	0.10	3.45

SI No.	Agency/Source	Approved in MYT Order			APDCL		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
28	Non-Solar RE Power Purchase - balance to meet RPO	275.38	74.92	2.72			
29	Power Swapping Arrangement						
30	Sub-total::	12,775.90	5,168.11	4.05	13766.78	7260.06	5.27
31	Renewable Energy Certificate (Solar)						
32	Renewable Energy Certificate (Non-Solar)						
33	UI Pool/Deviation Settlement Mechanism				-23.96	-18.43	7.69
34	Supplementary bills pursuant to CERC Order						
35	Sub-total::	12,775.90	5,168.11	4.05	13,742.82	7,241.63	5.27
36	AEGCL Transmission Charges		488.94			437.52	
37	SLDC Charges		6.91				
38	PGCIL Transmission Charges		699.56			669.30	
39	TOTAL	12,775.90	6,363.52	4.98	13,742.82	8,348.45	6.07
40	Less: rebate on timely payment of bills						
41	Less: Delayed Payment Surcharge						
42	Net Power Purchase	12,775.90	6,363.52	4.98	13,742.82	8,348.45	6.07

Commission's Analysis

- 6.6.4 The Commission has considered the rate of purchase from various sources based on the following approach:
- a) Cost of power purchase from APGCL has been considered in line with the generation and rate approved for APGCL in the Tariff Order for FY 2023-24.
 - b) The rate of NEEPCO Thermal power plants are considered as same as what was approved in MYT Order dated March 21, 2022.
 - c) For the other sources of power purchase, the Commission has considered the quantum of power purchase at the same level as estimated for FY 2022-23.
 - d) The Commission has accepted APDCL's submissions regarding projected energy availability from new generating stations and capacity increases from existing sources
 - e) The Transmission Charges payable to AEGCL and SLDC Charges have been considered as approved for AEGCL and SLDC in the respective Tariff Order.
 - f) The PGCIL Charges have been considered at same level as estimated for FY 2022-23;
 - g) For existing sources of power purchase, the Commission has considered the rate of power purchase at the same level as estimated for FY 2022-23.
- 6.6.5 As regards power purchase from NUPPL, the Commission enquired APDCL to provide the status of the Capacity Allocation of 495 MW from NUPPL and the assurance that such power capacity will be allocated and power will be available from this plant in FY 2023-24 and also to submit the basis for considering the rate of purchase from NUPPL as Rs. 4.52/kWh
- 6.6.6 The Commission have also considered surplus power sale in Power exchanges in FY 2023-24 at a rate of Rs. 5.57/kWh.
- 6.6.7 The source-wise power purchase quantum and costs approved by the Commission for the FY 2023-24, is shown in the Table below:

Table 68: Power Purchase Quantum and Cost approved by the Commission for the FY 2023-24

SI No.	Agency/Source	Approved in MYT Order			APDCL			Approved		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
1	APGCL	2162.25	722.66	3.34	2148.05	1475.27	6.87	2172.14	776.44	3.57
2	NEEPCO (HYDRO)									
	KOPILI I	475.71	124.64	2.62		0.25			0.25	
	KOPILI II					0.22			0.22	
	KHANDONG	147.04	25.97	1.77		0.62			0.62	
	RHEP	506.99	132.42	2.61	564.95	144.85	2.56	564.95	144.85	2.56
	DHEP	60.39	39.79	6.59	73.17	68.23	9.32	73.17	68.23	9.32
3	NEEPCO (HYDRO) New									
	KAMENG HEP	248.24	100.45	4.05	312.52	125.12	4.00	312.52	125.12	4.00
4	NEEPCO (TH)									
	AGBPP	982.92	358.96	3.65	945.21	752.40	7.96	945.21	345.19	3.65
	AGTPP	401.64	169.33	4.22	363.32	266.89	7.35	363.32	153.18	4.22
	AGTPP 2									
5	NHPC Loktak HEP	172.38	57.94	3.36	144.96	57.41	3.96	144.96	57.41	3.96
6	NHPC New									
	SUBANSIRI HEP	190.33	139.89	7.35						
7	NTPC (Existing)									
	FARAKKA	214.16	96.24	4.49	235.78	111.82	4.74	235.78	111.82	4.74
	KAHELGAON - I	103.87	36.49	3.51	116.91	54.35	4.65	116.91	54.35	4.65
	KAHELGAON -II	455.10	155.18	3.41	548.51	251.22	4.58	548.51	251.22	4.58
	TALCHER	148.39	42.71	2.88	143.48	40.31	2.81	143.48	40.31	2.81
	FARAKKA-III									

SI No.	Agency/Source	Approved in MYT Order			APDCL			Approved		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
8	NTPC (New) BTPS	2511.18	1476.24	5.88	3090.37	1896.64	6.14	3090.37	1896.64	6.14
9	Pare HEP	183.77	100.65	5.48	200.11	100.13	5.00	200.11	100.13	5.00
10	Suryatap Solar	6.12	5.38	8.79	6.00	5.27	8.78	6.00	5.27	8.79
11	JNNSM Bundled Solar power	6.09	7.62	12.51	6.98	8.56	12.26	6.98	8.56	12.27
12	SECI Solar	37.79	23.54	6.23	38.22	23.18	6.06	38.22	23.18	6.07
13	JNNSM Bundled Coal power	28.24	10.54	3.73	2.72	5.78	21.25	2.72	5.78	21.24
14	Power Exchanges	0.00	0.00	4.64	-	-		(1,742.43)	(970.53)	5.57
15	OTPC Palatana	1339.65	462.23	3.45	1496.84	420.76	2.81	1496.84	420.76	2.81
16	HHPCPL (Champawati)	8.60	3.69	4.29	8.73	4.08	4.67	8.73	4.08	4.67
17	Wind Power PTC	115.19	40.66	3.53	104.06	36.73	3.53	104.06	36.73	3.53
18	SECI Wind	148.50	40.40	2.72	144.76	39.37	2.72	144.76	39.37	2.72
19	Mangdechhu	594.33	255.37	4.30	502.91	233.49	4.64	502.91	233.49	4.64
20	PTC Nikachu	374.10	127.03	3.40	46.67	16.26	3.48	46.67	16.26	3.48
21	SPV Assam (Azure Power)	140.82	46.86	3.33	116.26	38.74	3.33	116.26	38.74	3.33
22	Punatsangchhu HEP-I	242.07	101.43	4.19	-	-				
23	Punatsangchhu HEP-II	206.30	86.44	4.19	-	-				
29	Amguri Solar Park	99.40	39.56	3.98	70.95	29.35	4.14	70.95	28.24	3.98
	Neyveli UP PL				2334.05	1052.66	4.51	2334.05	1054.99	4.52

SI No.	Agency/Source	Approved in MYT Order			APDCL			Approved		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
30	Solar RE Power Purchase - balance to meet RPO	188.96	62.88	3.33	0.29	0.10	3.45	0.29	0.10	3.45
31	Non-Solar RE Power Purchase - balance to meet RPO	275.38	74.92	2.72					0.00	
	Sub-total::	12,775.90	5,168.11	4.05	13766.78	7260.06	5.27	12,048.46	5,071.00	4.21
33	Renewable Energy Certificate (Solar)									
34	Renewable Energy Certificate (Non-Solar)									
35	UI Pool/Deviation Settlement Mechanism				-23.96	-18.43	7.69			
36	Supplementary bills pursuant to CERC Order									
	Sub-total::	12,775.90	5,168.11	4.05	13,742.82	7,241.63	5.27	12,048.46	5,071.00	4.21
37	AEGCL Transmission Charges		488.94			437.52			658.88	
38	SLDC Charges		6.91						10.11	
39	PGCIL Transmission Charges		699.56			669.30			669.30	

SI No.	Agency/Source	Approved in MYT Order			APDCL			Approved		
		Quantum	Total Cost	Rate	Quantum	Total Cost	Rate	Quantum	Total Cost	Rate
		MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh	MU	Rs. Crore	Rs./kWh
	TOTAL	12,775.90	6,363.52	4.98	13,742.82	8,348.45	6.07	12,048.46	6,409.29	5.32
40	Less: rebate on timely payment of bills									
41	Less: Delayed Payment Surcharge									
42	Net Power Purchase	12,775.90	6,363.52	4.98	13,742.82	8,348.45	6.07	12,048.46	6,409.29	5.32

Therefore, the Commission approves total Power Purchase Expenses of Rs. 6409.29 Crore for FY 2023-24.

The Average Pooled Power Cost (APPC) for FY 2023-24, applicable for settlement of energy in case of gross/net metering by Rooftop Solar installation, and settlement of energy charges for REC purchases, shall be Rs 4.54/ kWh

6.7 Operation and Maintenance (O&M) Expenses

6.7.1 The O&M expenses comprise Employee Expenses, R&M expenses and A&G expenses and each of these components are discussed below:

Employee Expenses

6.7.2 APDCL submitted that employee expenses comprising salaries, dearness allowance, bonus, terminal benefits in the form of contribution for pension and gratuity funding, leave encashment, and staff welfare expenses have been projected on normative basis as per the MYT Regulations, 2021.

The following approach has been adopted:

- The employee expenses submitted in APR for FY 2022-23 have been considered as base expenses for the FY 2023-24;
- CPI inflation has been computed as average increase of CPI index for the period from FY 2020-21 to FY 2022-23 (up to September'22), which works out to 5.03%;
- Considering the attrition ratio, uniform growth factor at 1% per annum is considered;
- The normative employee expenses considered for APR FY 2022-23 as the base and considering growth factor of 1% and further escalated by CPI index of 5.03% to arrive at the employee expenses for FY 2023-24.

6.7.3 The normative employee expenses projected by APDCL for the FY 2023-24 are as shown below:

Table 69: Employee Expenses for FY 2023-24 (Rs Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL
Employee Expenses for Previous Year	835.92	866.81
Growth Factor	0%	1%
CPI Inflation	5.53%	5.03%
Employee Expenses	882.13	919.54

Repair and Maintenance (R&M) Expenses

6.7.4 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.

6.7.5 The Petitioner submitted that R&M expenses have been projected based on the MYT Regulations, 2021. The Petitioner has considered the value of 'K' as approved in the MYT order of 3.10% and WPI as 8.13% (on the basis of index till October 2022).

6.7.6 APDCL has projected R&M expenses for the FY 2023-24 as shown below:

Table 70: R&M Expenses from FY 2023-24 (Rs Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL
Average GFA for past two years	10,111.62	9,311.87
K Factor	3.10%	3.10%
WPI Inflation	4.13%	8.13%
R&M Expenses	326.84	312.13

Administrative and General (A&G) Expenses

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

6.7.8 The Petitioner submitted that A&G expenses are being claimed in accordance with the MYT Regulations 2021. The Petitioner has considered WPI of 8.13%. Provision of statutory fees is provided at APR for FY 2022-22 level.

6.7.9 The A&G expenses projected for FY 2023-24 are as shown below.

Table 71: A&G Expenses from FY 2023-24 (Rs Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL
A&G Expenses for Previous Year	74.03	57.70
WPI Inflation	4.13%	8.13%
Provision	-	-

Particulars	MYT Order dtd. 21.03.22	APDCL
Statutory Fees	1.89	2.35
A&G Expenses	78.98	64.74

Total O&M Expenses

6.7.10 The total O&M expenses claimed by the Petitioner for FY 2023-24 are as shown below:

Table 72: O&M Expenses from FY 2023-24 (Rs Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL
Employee Expenses	882.13	919.54
R&M Expenses	326.84	312.13
A&G Expenses	78.98	64.74
Total O&M Expenses	1287.95	1,296.41

APDCL requested the Commission to allow the total O&M expenses as shown above for FY 2023-24.

Commission's Analysis

6.7.11 The Commission has computed the normative O&M Expenses for the FY 2023-24 as per the MYT Regulations, 2021. 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 the MYT Regulations at the time of truing up for respective year, based on prudence check.

6.7.12 For computation of employee expenses for FY 2023-24, the Commission has adopted the following approach:

- a) The employee expenses computed in the APR of FY 2022-23 have been considered as base expenses;
- b) CPI inflation has been computed as average increase of CPI index for the period from FY 2020-21 to FY 2022-23, which works out to 5.18%;

- c) Growth factor is considered at 0%, in view of the steep decline in the number of employees.
- d) The Commission decided to approve recovery of the DCRG under NPS of Rs 337.62 Crore over a period of 5 years as this is a one-time provisioning against several past years. Therefore, only 1/5th impact (Rs. 67.52 Crore) has been approved in FY 2023-24, with the balance spread till FY 2025-26. So, for FY 2023-24 Rs. 67.52 Crore has been additionally considered.

6.7.13 The normative employee expenses approved for FY 2023-24 are shown in the following Table:

Table 73: Approved Employee Expenses for the FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Employee Expenses for Previous Year	835.92	866.81	837.57
Growth Factor	0%	1%	0%
CPI Inflation	5.53%	5.03%	5.18%
Employee Expenses	882.13	919.54	880.93
Add: Provision for DCRG under NPS	-	-	67.52
Employee Expenses	882.13	919.54	948.46

Therefore, the Commission approves Employee Expenses of Rs. 948.46 Crore for FY 2023-24.

6.7.14 For computation of R&M Expenses for FY 2023-24, the Commission has considered the following approach:

- a) Average GFA of previous year has been considered as approved in APR of FY 2022-23;
- b) WPI inflation has been computed as average increase of WPI index for period from FY 2020-21 to FY 2022-23, which works out to 8.02 %;
- c) K-factor of 3.10% has been considered as approved in the MYT Order.

6.7.15 The normative R&M expenses approved for FY 2023-24 are shown in the following Table:

Table 74: Approved R&M Expenses for FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Average GFA for previous year	10,111.62	9,311.87	9,106.94
K Factor	3.10%	3.10%	3.10%
WPI Inflation	4.13%	8.13%	8.02%
R&M Expenses	326.84	312.13	305.36

Therefore, the Commission approves R&M Expenses of Rs. 305.36 Crore FY 2023-24.

6.7.16 For computation of A&G expenses for FY 2023-24, the Commission has adopted the following approach:

- The A&G expenses approved in APR of FY 2022-23 have been considered as base expenses;
- WPI inflation has been computed as average increase of WPI index for period from FY 2020-21 to FY 2022-23, which works out to 8.02 %;
- The statutory fees of Rs. 2.35 Crore estimated in the APR for FY 2022-23 have been considered as a separate pass-through item, and added to the normative A&G expenses computed for FY 2023-24 as above.

6.7.17 The approved A&G expenses for FY 2023-24 are shown in the following Table:

Table 75: Approved A&G Expenses for the FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
A&G Expenses for Previous Year	74.03	57.70	100.21
WPI Inflation	4.13%	8.13%	8.02%
Statutory Fees (pass through at actuals)	1.89	2.35	2.35
A&G Expenses	78.98	64.74	110.59

Therefore, the Commission approves A&G Expenses of Rs. 110.59 Crore for FY 2023-24.

Total O&M Expenses Approved

6.7.18 The total O&M expenses approved by the Commission for FY 2023-24 is as under:

Table 76: Total O&M expenses approved for FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Employee Expenses	882.13	919.54	948.46
R&M Expenses	326.84	312.13	305.36
A&G Expenses	78.98	64.74	110.59
Total O&M Expenses	1287.95	1,296.41	1,364.41

6.8 Capital Expenditure and Capitalisation

6.8.1 APDCL submitted that based on the works carried on till date, budgetary allocation for FY 2022-23 vis-à-vis pending CWIP, the capital expenditure & capitalisation for FY 2023-24 is projected as Rs. 2655.23 Crore and Rs. 1861.95 Crore respectively.

6.8.2 APDCL has proposed the financing of the said capitalisation as under:

Table 77: Financing of the Projected Capitalisation for the FY 2023-24 (Rs. Crore)

Sl. No.	Particulars	Amount
A	Opening Balance of CWIP	4237.54
B	Fresh CAPEX during the year	2655.23
C	Investment capitalised out of opening CWIP	1861.95
D	Investment capitalised out of fresh investment	
	Total Capitalisation during the year (C+D)	1861.95
	Closing Balance of CWIP (A + B - C - D)	5030.83

Commission Analysis

6.8.3 APDCL has proposed capitalization of Rs.1861.95 Crore as against the

approved capitalization of Rs. 1620 Crore.

6.8.4 It is observed that APDCL has been projecting huge capitalization at the time of ARR and achieving much lower capitalization. The Commission has therefore, considered capitalization for FY 2023-24 in line with the capitalization estimated in the APR for FY 2022-23.

6.8.5 The Commission hence, approves the capitalization of Rs.1340 Crore for FY 2023-24. The Commission has considered funding of the Capitalization through Grant and Debt in the ratio of 90:10, as per typical funding pattern. The following table shows the approved capitalization and its funding considered for FY 2023-24.

Table 78: Financing of the Projected Capitalisation for the FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Opening CWIP		4,237.54	5055.42
Investment capitalised		2,655.23	2,655.23
Total Capitalised	1620.00	1,861.95	1,340.00
Closing CWIP		5,030.82	6,370.65

6.9 Depreciation

6.9.1 APDCL submitted that the depreciation has been claimed in accordance with the MYT Regulations, 2021, after apportionment of depreciation for assets created out of consumer contribution. Assets which have been fully depreciated have been excluded from the asset base for the purpose of calculating depreciation. Rates of depreciation as notified in the MYT Regulations have been considered.

6.9.2 The depreciation proposed by APDCL for the FY 2023-24 is shown in the Table below:

Table 79: Depreciation claimed by APDCL for the FY 2023-24 (Rs. Crore)

Particulars	APDCL
Opening GFA	3,302.30
Opening CWIP	3,575.09
Grant	818.89

Particulars	APDCL
Depreciation charged	163.04
Average rate	4.94%
Apportioned GFA after adjustment of grant	2909.10
Apportioned depreciation claimed	143.63

6.9.3 The Petitioner requested the Commission to approve depreciation of Rs. 143.63 Crores for FY 2023-24.

Commission's Analysis

6.9.4 For computation of depreciation, the Commission has considered the closing GFA for FY 2022-23 as approved in this Order, as the Opening GFA for FY 2023-24. The Capitalisation approved for tariff determination has been considered as asset addition during the year. The Commission has considered the scheduled depreciation rates as specified in MYT Regulations, 2021.

6.9.5 As per the Regulation 33 of the MYT Regulations, 2021, the total depreciation during the life of the asset shall not exceed 90% of the original cost of GFA. The Commission has computed the depreciation separately for assets added under each asset head in each year. The Commission has disallowed the depreciation on assets where depreciation is in excess of 90% of the original cost of asset under different asset heads. The Commission has not considered depreciation on assets funded through grants/ consumer contributions in accordance with Regulation 33 of the MYT Regulations, 2021.

6.9.6 In view of the above, the Commission approves depreciation for FY 2023-24 as per MYT Regulations, 2021, as given in the Tables below:

Table 80: Depreciation approved for FY 2023-24 (Rs. Crore)

Sl. No.	Particulars	Opening GFA	Addition during the year	Rate of Depreciation	Depreciation as per MYT Regulations, 2021
1	Land owned	19.03	3.39	0.00%	-
2	Leasehold Land	2.84		3.34%	0.09
3	Building	60.21	1.17	3.34%	3.24

Sl. No.	Particulars	Opening GFA	Addition during the year	Rate of Depreciation	Depreciation as per MYT Regulations, 2021
4	Plant & Machinery	930.46	77.07	5.28%	92.03
5	Vehicle	27.24		5.28%	1.45
6	Furnitures & Fixtures	20.81	0.83	6.33%	2.16
7	Office Equipment	66.79	11.21	6.33%	18.64
8	Other Civil Work	81.34	8.02	3.34%	7.20
9	Lines & Cable Network	1,979.39	210.30	5.28%	270.93
10	Total	3,188.11	312.00		395.74
11	Assets built through CC	233.81			
12	Assets not belonging to entity	6,355.02	1,028.00		
13	Less: Depreciation for Grants				222.73
14	Net depreciation allowed	9,776.94	1,340.00		173.01

Therefore, the Commission approves Depreciation of Rs.173.01 Crore for FY 2023-24.

6.10 Interest and Finance Charges

6.10.1 APDCL submitted that the interest and finance charges have been claimed in line with the approach followed in tariff orders with addition of bank charges and facilitation charges paid to aggregator for online payment by consumers in line with approval of the Commission.

6.10.2 APDCL submitted that the Commission has not allowed interest on RAPDRP Loan, interest on GPF, interest on NPS etc. In this context, the following points are submitted:

- a) At the time of unbundling, no funding was accommodated to APDCL against the accumulated GPF balance along with interest. The same was considered as a part of internal resources in the Asset Financing Structure on formation of the company. Considering the perennial resource crunch vis-à-vis pendency of approval from concerned authorities, no dedicated GPF can be formed. As most of the employees covered under GPF will be attaining superannuation

within a very short span of time, formation of trust at this juncture doesn't seem operationally prudent. However, as per the terms of transfer scheme on unbundling, APDCL is committed to disburse the share of interest on GPF to every incumbent.

- b) All contributions under NPS are being deposited regularly to NSDL as per norms. However, APDCL is liable to pay interest for the period of delay in uploading or generation of PRAN etc.
- c) With bank accounts spread all across the State of Assam, APDCL is liable to pay various charges levied by banks viz. cash handling charges, remittance charges, and RTGS /NEFT charges wherever applicable.

6.10.3 Accordingly, APDCL submitted interest and finance charges for the FY 2023-24 as shown in the Table below:

Table 81: Interest and Finance Charges as submitted by APDCL for FY 2023-24 (Rs. Crore)

Particulars	Amount
Opening normative loan	175.29
Addition of normative loan during the year	40.16
Normative Repayment during the year	143.63
Net Normative Closing Loan	71.82
Rate of Interest	10.00%
Interest on Debt Capital	7.18

6.10.4 The Petitioner requested the Commission to allow recovery of actual cost incurred as interest on GPF as well as NPS at an opportune time so as to safeguard the financial viability of the utility .

Commission's Analysis

6.10.5 Interest on loan capital for FY 2023-24 is required to be allowed on normative basis as per MYT Regulations, 2021.

6.10.6 The normative closing balance of loan approved in APR for FY 2022-23 has been

considered as the normative opening balance of loan for FY 2023-24.

6.10.7 The Commission has considered the addition of loan as the balance amount after deducting grant/consumers' contribution of the capitalization approved in FY 2023-24. Repayment has been considered equal to the depreciation approved for the year.

6.10.8 The Commission has considered interest rate of 8.41% for FY 2023-24 as per submission of APDCL. The Other Financing Charges and Bill desk Charges have not been considered separately under Interest & Financing Charges, as the same are included in the normative A&G expenses. The interest on loan capital as approved by the Commission for FY 2023-24 is shown in the following Table:

Table 82 : Approved Interest on Loan Capital for FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Opening Loan	212.65	175.29	86.09
New Loan	32.40	40.16	17.00
Loans Repayment	50.29	143.63	103.09
Closing Loan	194.76	71.82	0.00
Average Loans	203.70	123.56	43.04
Interest Rate	10.00%	10.00%	8.41%
Interest Amount	20.37	7.18	3.62
Other Financing Charges	-	-	-
Bill Desk Charges for collecting Revenue	-	-	-
Total Interest	20.37	7.18	3.62

Therefore, the Commission approves Interest on Loans of Rs. 3.62 Crore for FY 2023-24.

6.11 Interest on Working Capital

6.11.1 APDCL submitted that the interest on working capital has been calculated on normative basis in line with the formula given by the Commission in its Terms and Conditions of MYT Regulations, 2021.

6.11.2 The computation of normative IoWC as submitted by APDCL is as shown in the Table below:

Table 83: IoWC from FY 2023-24 as projected by APDCL (Rs Crore)

Particulars (in Rs. Crores)	MYT Order dtd. 21.03.22	APDCL
O&M Expenses - One month	107.33	108.03
2-month Receivables	193.19	194.46
Maintenance spares @ 15% of O&M Expenses	1,195.64	1,499.86
Less: One-month Power Purchase Cost	530.29	695.70
Less: Consumer Security Deposit	1,004.37	836.58
Total Working Capital	(38.50)	270.07
Rate of Interest on WC	10.00%	10.00%
Interest on Working Capital	-	27.01

6.11.3 The Petitioner requested the Commission to allow recovery of Rs. 27.01 Crore on account of Interest on Working Capital in the ARR for FY 2023-24.

Commission's Analysis

6.11.4 The Commission has computed IoWC in accordance with the MYT Regulations, 2021. The rate of Interest has been considered equal to State Bank of India MCLR Rate (one-year tenor) prevailing for last available 6 months plus 300 basis points, i.e., 10.58%. As no purchase from Power Exchanges or RECs have been considered by the Commission, the cost of the same has not been deducted from the power purchase cost.

6.11.5 The Interest on Working Capital approved by the Commission for the FY 2023-24 is shown in the following Table:

Table 84: IoWC approved by the Commission for the FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
O&M Expenses for 1 Month	107.33	108.03	108.07
Maintenance spares @ 15% of O&M Expenses	193.19	194.46	194.53

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
2 months equivalent of expected revenue from sale of electricity	1,195.64	1,499.86	1,305.19
Less: 1 month of Power Purchase Cost	530.29	695.70	614.99
Less: Amount held as Consumer Security Deposit	1,004.37	836.58	1,033.85
Total Working Capital Required	(38.50)	270.07	(41.04)
Interest rate	10.00%	10.00%	10.58%
Interest on Working Capital	-	27.01	-

Therefore, the Commission approves loWC of Nil for FY 2023-24.

6.12 Interest on Consumers' Security Deposit

6.12.1 APDCL submitted that with successful roll out of software facilitating automatic adjustment of interest on security deposit in energy bills, the liquidation of liability on such account has significantly increased.

6.12.2 APDCL has claimed Interest on consumer security deposit for FY 2023-24 on the amount actually paid to the consumers as per audited accounts for FY 2021-22 i.e. Rs. 52.68 Crore

Commission's Analysis

6.12.3 APDCL is duty bound to pay/adjust the interest on CSD to all the HT and LT category consumers every year. Therefore, the Commission has considered Interest on Consumer Security Deposit as claimed by APDCL.

Therefore, the Commission approves Interest on CSD of Rs. 52.68 Crore for FY 2023-24.

6.13 Other Debits

6.13.1 The Commission approved Rs. 8.30 Crore as 'Other debit' in the MYT Order dated 21.03.2022. APDCL submitted that with improving revenue collection trend of arrears, the petitioner proposes to claim 25% of claim made under true up

petition for FY 2021-22.

6.13.2 Accordingly, APDCL requested the Commission to approve an amount of Rs. 6.80 Crore under the head of 'Other Debits' during ARR of FY 2023-24.

Commission's Analysis

6.13.3 The Commission allows 'Other Debits' including provisioning of bad debts of Rs. 6.80 Crore for FY 2023-24 as it is within the limit of provisioning of bad debts according to MYT Regulation, 2021.

6.14 Return on Equity

6.14.1 As the MYT Regulations, 2021 provides for base RoE @14% on admissible equity with scope of incremental 2% linked with capitalisation target, APDCL submitted that the Company has considered RoE claim only at base rate of 14% at present. However, the Petitioner submitted that APDCL reserves the right to claim for additional rate at the time of true up for respective years on the basis of capitalisation targets fixed by the Commission.

6.14.2 APDCL submitted that the State Cabinet has accorded approval on conversion of outstanding loan of Rs. 930.91 Crore and grant of Rs. 3359.32 Crore as on 31.03.2021 to equity. In order to materialize the conversion of loan/grant to equity, the petitioner submitted that the authorised share capital has already been enhanced to Rs. 5000 Crore. APDCL submitted that RoE has been claimed in line with methodology adopted by the Commission in the previous order.

6.14.3 APDCL claimed Return on Equity amounting to Rs. 212.46 Crore for FY 2023-24 against MYT approval of Rs. 195.55 Crore.

Table 85: Return on Equity from FY 2023-24 (Rs Crore)

Particulars	Amount
Opening Equity	1343.14
Net Addition during the Year	348.93
Closing Equity	1692.07
Average Equity	1517.60
GFA at the beginning of the year	10157.83
Permissible equity for RoE	1517.60

Particulars	Amount
Rate of Return on Equity	14.00%
Return on Equity	212.46

Commission's Analysis

6.14.4 The Commission has approved the Return on Equity in accordance with Regulation 34 of the MYT Regulations, 2021.

6.14.5 As stated in the APR for FY 2022-23, equity funding can be considered up to maximum of 30% of the balance capitalisation to be funded, irrespective of the actual equity invested by the Licensee. The conversion of Grants to Equity by the GoA in FY 2022-23 has accordingly been considered in accordance with the Commission's MYT Regulations, 2021. The GoA has converted Grants worth Rs. 3359.32 Crore to equity, out of the total average Grants of Rs. 9220.90 Crore in FY 2023-24. The GoA has also converted outstanding loan of Rs. 930.91 Crore to equity. Considering maximum 30% equity funding, the Commission has considered additional equity of Rs. 22.65 Crore in the ARR for FY 2023-24 for tariff computation purpose, on account of conversion of Grants to Equity. Further, no conversion of loan to equity has been considered, as the maximum permissible equity has already been allowed.

6.14.6 The Commission has computed the maximum permissible additional equity for FY 2023-24, as shown in the Table below:

Table 86: Equity Addition allowed by the Commission due to Conversion of Grant to Equity for the FY 2023-24 (Rs. Crore)

Sr. No.	Particulars	MYT Order	APDCL	Approved
1	Opening GFA	11736.81	11,102.02	9,776.55
2	Average Grant towards GFA	10,424.02	9738.88	9,220.90
3	Grants converted to Equity	3,359.32	3359.32	3359.32
4	Net Grant towards GFA	7,064.70	6,379.56	5,861.58
5	Net GFA to be funded	4,672.11	5,640.22	3,914.97
6	Maximum Equity that can be considered	1,401.63	1,692.07	1,174.49
7	Equity already allowed	1,391.91	1,343.14	9,776.55
8	Equity that can be additionally allowed	9.72	348.93	22.65

6.14.7 The Commission has accordingly considered equity addition of Rs. 22.65 Crore for FY 2023-24 on account of conversion of grants to equity by the State Government.

6.14.8 The Commission has not considered any addition of equity against capitalisation during the year based on the funding of capitalisation approved in this Order. Therefore, the approved Return on Equity at 14% for FY 2023-24 is shown in the Table below:

Table 87: Return on Equity approved by the Commission for FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Opening Equity Balance	1391.91	1343.14	1151.84
Addition During the Year	9.72	348.93	22.65
Closing Equity Balance	1,401.63	1,692.06	1,174.49
Average Equity Balance	1,396.77	1,517.60	1,163.17
Rate of Return (%)	14.00%	14.00%	14.00%
Return on Equity	195.55	212.46	162.84

Therefore, the Commission approves RoE of Rs. 162.84 crore for FY 2023-24.

6.15 Non-Tariff Income

6.15.1 APDCL submitted that NTI for FY 2023-24 has been projected by escalating various heads of actual non-tariff income for FY 2021-22 and minor adjustments.

6.15.2 The non-tariff income projected for FY 2023-24 is depicted in the table below.

Table 88: Non-Tariff Income as submitted by APDCL for FY 2023-24 (Rs. Crore)

Particulars	Amount
Rentals from Meters, Service Lines, Capacitors etc.	28.49
Income from recoveries on account of theft of energy/ Malpractices	0.21
Delayed payment charges from Consumers	215.04
Misc. recoveries	42.27
Rebate on prompt payment of Power purchase bills	42.68
Cross Subsidy surcharge on Open Access Consumer	8.26

Particulars	Amount
Wheeling charges collected	5.28
Short Term Open Access (STOA) credit	39.75
Income on Reactive Power	0.00
Income From SCED	3.02
Total	384.99

Commission's Analysis

6.15.3 The Commission has also considered annual increase of 5% over the Non-Tariff Income approved for FY 2022-23 for projecting Non-Tariff Income for FY 2023-24

6.15.4 The Commission has not considered the rebate on Power Purchase bills as NTI in line with the approach adopted in earlier Orders. Further, the amount of Delayed Payment Surcharge has been retained same as the actuals received in FY 2021-22 and approved in APR for FY 2022-23. The amount shall be considered at actuals during the true up for the respective years.

6.15.5 The Commission approves NTI for FY 2023-24 as shown in the Table below:

Table 89: Non-Tariff Income approved for FY 2023-24 (Rs. Crore)

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Meter Rent	26.30	28.49	28.49
Compensation charges for theft of energy/malpractices	0.87	0.21	0.21
Rental receipt of plant and equipment	-		
Cross Subsidy surcharge on Open Access Consumer	15.47	8.26	8.26
Wheeling Charges collected	5.24	5.28	5.28
Short-term Open Access Credit	62.04	39.75	39.75
Rebate on PP bills		42.68	-
Receipts from renting plant and machinery	-		
Miscellaneous Recoveries	27.81	42.27	42.27

Particulars	MYT Order dtd. 21.03.22	APDCL	Approved
Other Miscellaneous and General Charges (specify)	-		-
a) Delayed payment charges	283.09	215.04	344.37
b) Transformer Maintenance	-		
c) Income on Reactive Power	0.27	-	-
d) Income from SCED	3.89	3.02	3.02
Grand Total	424.97	384.99	471.64

Therefore, the Commission approves Non-Tariff Income of Rs 471.64 Crore for FY 2023-24.

6.16 Other Income

6.16.1 APDCL submitted that it has projected 'Other Income' by considering the actuals for FY 2021-22 (True up) except for the following:

- Miscellaneous receipt is escalated by 5%.
- Seasonal export is based on surplus energy estimate at FY 2023-24 level IEX price of Rs. 4 per unit (off-peak/night hours)
- With high attrition ratio, receipt from pension trust is considered at reduced rate.

6.16.2 APDCL requested the Commission to allow 'Other Income' for FY 2023-24 as shown in the Table below:

Table 90: Other Income claimed by APDCL for FY 2023-24 (Rs Crore)

Particulars	Amount
Receipt from sale of LED bulb, Tube light, Fan, etc.	0.11
Interest from banks and Investment	37.40
Gain on sale of fixed assets	-
Rent from residential buildings	0.02
Miscellaneous receipts	28.50
Income from Sale of Scrap	2.30
Receipt from Pension Trust	18.67
Income on seasonal export of surplus power	623.03
Total	710.03

Commission's Analysis

6.16.3 The Commission has not considered any increment over actuals of FY 2021-22 for most elements of "Other Income" for FY 2023-24. However, an annual increase of 5% over actual miscellaneous receipts of FY 2022-23 has been considered.

6.16.4 The Commission has not considered income from trading /seasonal export as it has already been factored in power purchase expense of APDCL of FY 2023-24.

6.16.5 The Other Income approved by the Commission for FY 2023-24 is shown in the Table below:

Table 91: Other Income approved by the Commission for FY 2023-24 (Rs. Crore)

Particulars	MYT Order Dtd. 21.03.22	APDCL	Approved
Interest on fixed deposits	77.74	37.40	48.30
Income from Trading	210.30	623.03	-
Income from Sale of Scrap	0.12	2.30	2.09
Revenue from sale of LED's, Tubelight Fan etc.	0.02	0.11	0.00
Rent from residential buildings	0.02	0.02	0.02
Receipt from Pension Trust	50.13	18.67	30.64
Miscellaneous receipts	18.99	28.50	28.50
Total	357.32	710.03	109.55

Therefore, the Commission approves 'Other Income' of Rs. 109.55 crore for FY 2023-24.

6.17 Revenue from sale of electricity

6.17.1 APDCL has submitted that the Revenue from Sale of Electricity at existing tariff has been computed based on the approved Tariff as per Tariff Order dated 21 March, 2022 and the projected category-wise sales for the FY 2023-24.

6.17.2 The Petitioner has considered the full-cost tariff, without considering any targeted

subsidy and other subsidy for the purposes of estimating the revenue from sale of power for the FY 2023-24.

6.17.3 APDCL has submitted revenue at existing tariff of Rs. 7,367.64 Crore for FY 2023-24.

Commission's Analysis

6.17.4 The Commission has computed the Revenue from Sale of Electricity for FY 2023-24 at existing tariff based on the tariff approved in the Tariff Order dated March 21, 2022 and the approved category-wise sales for FY 2023-24.

6.17.5 The Revenue from Sale of Electricity from existing tariff as submitted by APDCL and as computed by the Commission for FY 2023-24 is given in the Table below:

Table 92: Revenue from Sale of Electricity for FY 2023-24 (Rs. Crore)

Particulars	APDCL	Approved
Revenue from Sale of Electricity	7,367.64	7,927.45

6.18 Power Purchase Subsidy from GoA

6.18.1 APDCL submitted that since for FY 2023-24, no subsidy against power purchase has been considered by the GoA, the Petition has been made without considering any such subsidy. However, in case State Government makes payment of the same, the same may be considered for adjustment in the tariff.

Commission's Analysis

6.18.2 The Commission has not considered any Power Purchase subsidy from GoA for FY 2023-24 for determination of ARR.

6.19 Aggregate Revenue Requirement (ARR)

6.19.1 As discussed in earlier paragraphs, the Commission has approved the expenses for the FY 2023-24 based on the principles specified in the MYT Regulations, 2021. The summary of ARR as submitted by APDCL and as approved by the Commission for the Control Period for FY 2023-24 is given in the Table below:

Table 93: ARR for APDCL approved by the Commission for FY 2023-24 (Rs. Crore)

Sl. No.	Particulars	MYT Order Dtd. 21.03.2022	APDCL Petition	Approved in ARR
1	Power Purchase Expenses	6,363.52	8,348.45	6,409.29
2	O&M Expenses	1,287.95	1,296.41	1,364.41
a)	<i>Employee Expenses</i>	882.13	919.54	948.46
b)	<i>R&M Expenses</i>	326.84	312.13	305.36
c)	<i>A&G Expenses</i>	78.98	64.74	110.59
3	Depreciation	50.29	143.63	173.01
4	Interest and Finance Charges	20.37	7.18	3.62
5	Interest on Working Capital	-	27.01	-
6	Interest on CSD	30.17	52.68	52.68
7	Return on Equity	195.55	212.46	162.84
8	Other Debits, incl. Provisioning for Bad Debts	8.30	6.80	6.80
9	Total Expenditure	7,956.14	10,095.02	8,172.65
10	Less: Non-Tariff Income	424.97	384.99	471.64
11	Less: Other Income	357.32	710.03	109.55
12	Aggregate Revenue Requirement	7,173.86	8,999.60	7,591.46
13	Revenue at Approved/Existing Tariff		7,367.64	7,927.45
14	Cumulative Revenue Gap/(Surplus)		1,631.96	(335.99)

The Commission approves ARR for APDCL of Rs. 7,591.46 Crore for FY 2023-24

7 Cumulative Revenue Gap till FY 2023-24 and Tariff for FY 2023-24

7.1 Cumulative Revenue Gap

7.1.1 APDCL has submitted the Cumulative Revenue Gap of Rs 10,939.34 Crore for FY 2023-24 without considering any Power Purchase subsidy from the GoA for FY 2023-24. The Cumulative Revenue Gap projected by APDCL for FY 2023-24 is given in the Table below:

Table 94: Cumulative Revenue Gap for FY 2023-24 as submitted by APDCL (Rs. Crore)

Particulars	Rate of Interest	Amount (Rs. Crore)
Revenue Gap after true-up for FY 2021-22		228.96
Carrying/(Holding) cost for FY 2021-22 (half Year)	10.00%	22.9
Carrying/(Holding) cost for FY 2022-23 (full Year)	10.00%	22.9
Carrying/(Holding) cost for FY 2023-24 (half Year)	10.00%	22.9
Total carrying cost		68.69
Total Revenue Gap for FY 2021-22		297.64
Revenue Gap after APR of FY 2022-23		1368.41
Carrying/(Holding) cost for FY 2022-23 (half Year)	10.00%	136.84
Carrying/(Holding) cost for FY 2023-24 (half Year)	10.00%	136.84
Total carrying cost		273.68
Total Revenue Gap for FY 2022-23		1642.09
Aggregate Revenue Requirement for FY 2023-24		8,999.60
Cumulative Revenue requirement for FY 2023-24		10,939.34

7.1.2 APDCL submitted that the average cost of supply to recover entire ARR of Rs. 10,939.34 Crore during FY 2023-24 will be Rs. 11.23 per unit.

7.1.3 APDCL submitted that recovery of entire amount will lead to increase of existing retail tariff by 28% on average over approved cost of supply Rs 8.14 per unit. Therefore, APDCL claimed only the reduced amount of Rs 9274.35 Crore which includes the standalone ARR of FY 2023-24 and True Up for FY 2021-22 of Rs 228.96 Cr along

with carrying cost of Rs 45.79 Cr.

7.1.4 As discussed above APDCL submitted the ARR for FY 2023-24 as Rs 9274.35 Cr as shown in table below-

Table 95: ARR for FY 2023-24 as submitted by APDCL (Rs. Crore)

Particulars	Amount (Rs. Crore)
A. Standalone Aggregate Revenue Requirement for FY 2023-24	8,999.60
B. True up for FY 2021-22	
i. Principal amount	228.96
ii. Carrying Cost	45.79
Sub-total (B)::	274.75
Grand total (A+B)::	9,274.35

Commission's Analysis

7.1.5 The Commission has approved the Cumulative Revenue Surplus of Rs. 96.33 Crore for FY 2023-24, without considering any Power Purchase subsidy from the GoA for FY 2023-24, as shown in the Table below:

Table 96: Cumulative Revenue Gap for FY 2023-24 approved by the Commission (Rs. Crore)

Sr. No.	Particulars	Rate of Interest (%)	Revenue Gap
1	Revenue Gap/(Surplus) after Truing up of FY 2021-22		-104.39
	Carrying Cost for FY 2021-22 (Half Year)	10.00%	-5.22
	Carrying Cost for FY 2022-23 (Full Year)	10.58%	-11.04
	Carrying Cost for FY 2023-24 (Half Year)	10.58%	-5.52
	Total carrying cost		-21.78
2	Total Revenue Gap/(Surplus) for FY 2021-22 (A)		-126.16
3	Revenue Requirement for FY 2023-24 (B)		7,591.46
4	Impact of APGCL True-Up (C)		(17.02)
5	Impact of AEGCL True-Up (D)		(73.18)
6	Impact of SLDC True-Up (E)		(1.07)
7	Additional Subsidy Commitment of GoA		-
8	Add: FPPPA under-recovery in FY 2022-23		457.09
9	Cumulative Revenue Requirement for FY 2023-24 (F) = A + B + C + D + E		7,831.12
10	Revenue from Existing Tariff in FY 2023-24 (G)		7,927.45
11	Total Revenue Gap/(Surplus) for FY 2023-24 (H) = (F) – (G)		-96.33

- 7.1.6 The Commission has considered the Revenue Gap/(Surplus) approved for APGCL, AEGCL, and SLDC in their respective True-up Orders for FY 2021-22, along with carrying cost, by directly passing through the same in the Cumulative Revenue Gap/(Surplus) of APDCL till FY 2023-24.
- 7.1.7 The Commission has also considered the recovery of the entire un-recovered FPPPA amount of Rs 457.09 Cr of Quarter 3 of FY 2022-23 (October to December, 2022), as requested by the petitioner in their Petition No. 05/2023 dated February 1, 2023.
- 7.1.8 As regards the Revenue Gap claimed by APDCL as a consequence of the APR for FY 2022-23, the same is not allowable as per the MYT Regulations, and any Revenue Gap/(Surplus) has to be adjusted only after true-up for that year. Hence, the Revenue Gap/(Surplus) computed by the Commission after APR for FY 2022-23 has not been considered in the Cumulative Gap/(Surplus) for FY 2023-24.
- 7.1.9 Thus, the Cumulative Revenue Surplus after passing through all the past Revenue Gap/(Surplus) after truing up for FY 2021-22 for APGCL, AEGCL, SLDC and APDCL along with carrying cost works out to Rs. 96.33 crore, which translates to an average tariff decrease of 1.2% or ~10 paise/kWh for all categories of consumer.
- 7.1.10 Accordingly, the Commission has rationalised the category-wise tariffs in order to absorb the Revenue Surplus of Rs. 96.33 Crore as well as to maintain the cross-subsidy between consumer categories within +/-20% of the ACoS, as elaborated in subsequent sections of this Order.

7.2 Tariff Philosophy and Design for FY 2023-24

- 7.2.1 APDCL submitted that it has been guided by the provisions of the EA 2003, National Electricity Policy (NEP), Tariff Policy and the MYT Regulations, 2021, while proposing retail supply tariff for FY 2023-24.
- 7.2.2 APDCL submitted that it has tried to rationalise the tariff as well as the cross-subsidy amongst the consumer categories while proposing tariffs for the various

consumer categories for FY 2023-24.

7.2.3 APDCL submitted the proposed tariff for FY 2023-24 such 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 Petitioner has attempted to reduce the cross-subsidies.

7.2.4 APDCL has worked out the ACoS for FY 2023-24 as Rs. 9.52 per kWh, as shown in the table below:

Table 97: ACoS Projected by APDCL for FY 2023-24

Particulars	Unit	Amount
Cumulative Revenue Requirement for FY 2023-24	Rs. Crore	9,274.35
Energy Sales for FY 2023-24	MU	9,738
ACoS for FY 2023-24	Rs/kWh	9.52

7.2.5 APDCL submitted that the GoA has been providing targeted subsidies for a few categories in the previous years. In the absence of any written commitment from GoA for continuance of the same in FY 2023-24, APDCL has proposed full-cost recovery tariff for FY 2023-24. In the event that the GoA continues with the category-wise tariff subsidy for FY 2023-24, the same would be adjusted in the retail tariffs being charged to the respective consumer categories.

Commission's Analysis

7.2.6 In determining the ARR and the retail supply tariff of APDCL for FY 2023-24, the Commission has been guided by the provisions of the EA 2003, National Electricity Policy (NEP), Tariff Policy, and the MYT Regulations, 2021.

7.2.7 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”.

7.2.8 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.

7.2.9 The Commission has carried forward the process of tariff rationalization in this Order to ensure that the tariffs of most of the categories are within $\pm 20\%$ of the ACoS, while at the same time ensuring that no category is faced with a tariff shock. The tariff of most subsidising categories has been retained below $+120\%$ of ACoS.

7.2.10 The Commission has computed the ACoS of Rs. 8.02/kWh based on the ARR approved for recovery in FY 2023-24.

7.2.11 The ACoS approved by the Commission for FY 2023-24 after inclusion of Revenue surplus of FY 2021-22 along with carrying cost and after adjustment of Revenue Gap/(Surplus) of APGCL, AEGCL, and SLDC is shown in the Table below:

Table 98: ACoS approved by the Commission for FY 2023-24

Sr. No.	Particulars	Units	Approved
1	Cumulative Revenue Requirement for FY 2023-24	Rs. Crore	7831.12
2	Total Sales for FY 2023-24	MU	9765
3	Average Cost of Supply (ACoS)	Rs/kWh	8.02

- 7.2.12 The Commission has retained the tariff categories and tariff slabs as approved in previous Tariff Order dated March 21, 2022.
- 7.2.13 The detailed applicability and description of tariff categories has been elaborated in the Tariff Schedule under Chapter 10 of this Order.
- 7.2.14 As there is a overall reduction in Average Cost of Supply, the Commission has reduced the energy charges by 10 to 20 paise per unit across all categories to partly or fully offset the increase in Fixed/Demand Charges by Rs. 10/kW/month or Rs. 10/kVA/month across all categories. With this increase, the recovery of fixed costs from Fixed/Demand Charges has gone up from 33% to 42.4%.
- 7.2.15 The applicability of Time-of-Day (ToD) tariff and the ToD rates for peak and off-peak hour consumption have been retained as approved in the Tariff Order dated March 21, 2022.
- 7.2.16 The rebate of 20% has been retained to Oxygen manufacturing plants under HT-V (C) category for FY 2023-24.
- 7.2.17 In the absence of any written commitment from GoA for providing category-wise subsidy in FY 2023-24 the Commission has approved the full cost tariff for FY 2023-24, as shown in the Table below:

Table 99: Full Cost Tariff approved by the Commission for FY 2023-24

Sl. No.	Consumer Category	Increase/(Decrease) in tariffs *		Revised tariffs	
		Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (Rs. per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (Rs. per kWh)
	LT Category				
LT-1	Jeevan Dhara	10.00	-0.10	40.00	5.05
LT-II	Domestic A- above 0.5 kW to 5 kW	10.00		70.00	
	0 to 120 units per month		-0.10	-	5.70
	121 to 240 units per month		-0.10	-	7.00
	Balance units		-0.20	-	7.90

Sl. No.	Consumer Category	Increase/(Decrease) in tariffs *		Revised tariffs	
		Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (Rs. per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (Rs. per kWh)
LT-III	Domestic-B above 5 kW to 30 kW	10.00	-0.20	70.00	7.45
LT-IV	Commercial Load above 0.5 kW to 30 kW	10.00	-0.20	150.00	7.90
LT-V	General Purpose Supply				
A	Non-commercial and Non-domestic users	10.00	-0.10	165.00	6.95
B	Government Primary and Secondary / Higher Secondary Schools/Charitable organisations involved in eradicating hunger specially for children	10.00	-0.10	90.00	6.85
LT-VI	Public Lighting	10.00	-0.10	140.00	6.90
LT-VII	Agriculture upto 7.5 HP	10.00	-0.10	65.00	5.05
LT-VIII(i)	Small Industries Rural upto 30 kW	10.00	-0.10	70.00	5.55
LT-VIII(ii)	Small Industries Urban upto 30 kW	10.00	-0.10	80.00	5.80
LT-IX	Temporary Supply				
	Domestic	10.00	-0.10	105.00	9.89
	Non-Domestic Non-Agriculture	10.00	-0.10	155.00	11.99
	Agriculture	10.00	-0.10	65.00	5.15
LT-X	LT Electric Vehicles Charging Stations	10.00	-0.10	150.00	5.90
	HT Category				
HT-I	HT Domestic 30 kW (35 kVA) and above	10.00	-0.10	70.00	7.60
HT-II	HT Commercial 30 kW (35 kVA) & above	10.00	-0.10	210.00	8.00
HT-III	Public Water Works	10.00	-0.10	155.00	6.75

Sl. No.	Consumer Category	Increase/(Decrease) in tariffs *		Revised tariffs	
		Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (Rs. per kWh)	Fixed Charges (Rs/kW/mth or Rs/kVA/mth)	Energy Charges (Rs. per kWh)
HT-IV	Bulk Supply 30 kW (35 kVA) and above				
HT-IV(i)	Educational Institutions/Charitable organisations involved in eradicating hunger specially for children	10.00	-0.10	150.00	7.15
HT-IV(ii)	Others	10.00	-0.10	210.00	8.10
HT-V(A)	HT Small Industries up to 50 kVA	10.00	-0.10	90.00	6.25
HT-V(B)	HT Industries-I 50 kVA to 150 kVA	10.00	-0.10	200.00	6.65
HT-V(C)	HT Industries-II above 150 kVA (Option 1)	10.00	-0.10	280.00	7.05
	HT Industries-II above 150 kVA (Option 2)	10.00	-0.10	360.00	6.65
HT-VI	Tea, Coffee & Rubber	10.00	-0.10	310.00	7.00
HT-VII	Oil & Coal	10.00	-0.10	320.00	8.05
HT-VIII	HT Irrigation Load above 7.5 HP	10.00	-0.10	85.00	6.55
HT-IX	HT Temporary Supply	10.00	-0.10	190.00	9.65
HT-X	HT Electric Crematorium	10.00	-0.10	190.00	4.85
HT-XI	HT Railway Traction	10.00	-0.10	320.00	6.75
HT-XII	Electric Vehicles Charging Station	10.00	-0.10	180.00	7.40

Note: These are Base Tariffs; Additional ToD tariffs have been detailed in the Tariff Schedule

* including existing FPPPA charges.

7.2.18 In case the GoA desires to provide category-wise subsidy in FY 2023-24 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 10.

7.3 Category-wise Cross-subsidy

7.3.1 The Commission has computed the cross-subsidy with respect to the approved ACoS and attempted to ensure that the cross-subsidies are within the limits of $\pm 20\%$ 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 2023-24 by the Commission in this Order are given in the Table below:

Table 100: Category-wise Cross-Subsidy approved for FY 2023-24

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	6.12	8.02	76.3%	-23.7%
2.	Domestic A- above 0.5 kW to 5 kW	6.86	8.02	85.6%	-14.4%
3.	Domestic-B above 5 kW to 30 kW	9.04	8.02	112.7%	12.7%
4.	Commercial Load above 0.5 kW to 30 kW	9.43	8.02	117.6%	17.6%
5.	General Purpose Supply	9.76	8.02	121.7%	21.7%
6.	Public Lighting	7.71	8.02	96.2%	-3.8%
7.	Agriculture up to 7.5 HP	6.82	8.02	85%	-15%
8.	Small Industries Rural up to 30 kW	7.53	8.02	93.9%	-6.1%
9.	Small Industries Urban	7.43	8.02	92.7%	-7.3%

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) (%)
	HT Category				
10	HT Domestic 30 kW and above	8.97	8.02	111.9%	11.9%
11	HT commercial 30 kW & above	9.54	8.02	119.0%	19%
12	Public Water Works	8.50	8.02	105.9%	5.9%
13	Bulk Supply - Educational Institutions/Charitable organisations involved in eradicating hunger specially for children	8.29	8.02	103.4%	3.4%
14	Bulk Supply Others	9.48	8.02	118.2%	18.2%
15.	HT Small Industries up to 50 kVA	8.05	8.02	100.4%	0.4%
16.	HT Industries-I 50 kVA to 150 kVA	9.10	8.02	113.5%	13.5%
17.	HT Industries-II above 150 kVA	9.64	8.02	120.2%	20.2%
18.	Tea, Coffee & Rubber	9.33	8.02	116.3%	16.3%
19.	Oil & Coal	9.17	8.02	114.4%	14.4%
20.	HT Irrigation Load above 7.5 HP	9.30	8.02	116%	16%

Note: (+) Cross-subsidy provided to other consumer categories

(-) Cross-subsidy received from other consumer categories

7.3.2 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.

7.4 Fuel Price and Power Purchase Adjustment Charges (FPPPA)

7.4.1 Fuel Price and Power Purchase Adjustment shall be applicable as per the AERC (Fuel and Power Purchase Price Adjustment) Regulations, 2010 and the

subsequent amendments.

- 7.4.2 APDCL shall comply with the AERC (Fuel and Power Purchase Price Adjustment) Regulations, 2010, and subsequent amendments thereof to adjust the differential cost of power purchase. The Commission may be constrained to disallow the carrying cost arising out of gap in power purchase cost if the same is on account of APDCL's failure to recover the variation in power purchase cost in accordance with the aforesaid Regulations.

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 2023-24.

8.2 Allocation Matrix

8.2.1 APDCL submitted that it has retained the Allocation Matrix considered in previous Tariff Orders by the Commission for allocation of expenses between the Wires Business and Retail Supply Business for FY 2023-24.

8.2.2 Accordingly, APDCL has proposed the following separation of ARR for Wires and Supply Business for FY 2023-24:

Table 101: Separation of ARR for Wires and Retail Supply Business for FY 2023-24 as submitted by APDCL (Rs. Crore)

Sr. No.	Particulars	Gross Amount	Wire Business	Retail Supply Business
1	Power Purchase Expenses	8348.45	0.00	8348.45
2	<i>Employee Expenses</i>	919.54	551.72	367.81
3	<i>R&M Expenses</i>	312.13	280.92	31.21
4	<i>A&G Expenses</i>	64.74	32.37	32.37
5	Depreciation	143.63	129.27	14.36
6	Interest and Finance Charges	7.18	6.46	0.72
7	Interest on Working Capital	27.01	2.70	24.31
8	Interest on CSD	52.68	0.00	52.68
9	Return on Equity	212.46	191.22	21.25
10	Exceptional items	0.00	0.00	0.00
11	Provisioning for Bad & Doubtful Debts	6.80	0.00	6.80
12	Less: Non-Tariff Income	384.99	0.00	384.99
13	Less: Other Income	710.03	71.00	639.03
	Total ARR	8999.60	1123.66	7875.94

Commission Analysis

8.2.3 The Commission has considered the following matrix, in line with the approach adopted in its previous Orders, for allocation of expenses between the Wires Business and Retail Supply Business as shown in the Table below:

Table 102: Allocation Matrix for Separation of ARR for Wires Business and Retail Supply Business for FY 2023-24

Particulars	Wires Business (%)	Supply Business (%)
Power Purchase Expenses	0%	100%
<i>Employee Expenses</i>	60%	40%
<i>R&M Expenses</i>	90%	10%
<i>A&G Expenses</i>	50%	50%
Depreciation	90%	10%
Interest and Finance Charges	90%	10%
Interest on Working Capital	10%	90%
Interest on CSD	0%	100%
Return on Equity	90%	10%
Income Tax	90%	10%
Prior Period Expenses		100%
Provisioning for Bad & Doubtful Debts	0%	100%
Less: Non Tariff Income	0%	100%
Less: Other Income	10%	90%

8.2.4 The approved ARR for APDCL for FY 2023-24 has been segregated between the Wires Business and Retail Supply Business, based on the above Allocation Matrix, as given in the Table below:

Table 103: Separation of ARR for Wires Business and Retail Supply Business for FY 2023-24 (Rs. crore)

Particulars	ARR for Wires Business (Rs. Crore)	ARR for Supply Business (Rs. Crore)	Total ARR (Rs. Crore)
Power Purchase Expenses	-	6,409.29	6,409.29
<i>Employee Expenses</i>	569.08	379.38	948.46
<i>R&M Expenses</i>	274.83	30.54	305.36

Particulars	ARR for Wires Business (Rs. Crore)	ARR for Supply Business (Rs. Crore)	Total ARR (Rs. Crore)
A&G Expenses	55.30	55.30	110.59
Depreciation	155.71	17.30	173.01
Interest and Finance Charges	3.26	0.36	3.62
Interest on Working Capital	-	-	-
Interest on CSD	-	52.68	52.68
Return on Equity	146.56	16.28	162.84
Income Tax	-	-	-
Prior Period Expenses	-	-	-
Provisioning for Bad & Doubtful Debts	-	6.80	6.80
Less: Non Tariff Income	-	471.64	471.64
Less: Other Income	10.96	98.60	109.55
Total ARR	1,193.77	6,397.70	7,591.46

8.3 Wheeling Charges

8.3.1 APDCL submitted that the Wheeling Charges applicable for distribution open access consumers at 33 kV voltage level for FY 2023-24 have been determined from the ARR of the Distribution Wires Business on gross basis, as shown in the Table below:

Table 104: Wheeling Charges as submitted by APDCL for FY 2023-24

Sr. No.	Particulars	Units	Proposed
1	Total Energy Input into Distribution System	MU	11,565
2	Total Wires ARR	Rs. Cr	1123.66
3	Distribution Cost for Wires Business for 33 kV Voltage level (assuming 35% of cost at 33 kV)	Rs. Cr	393.28
4	Wheeling Charges for 33 kV Voltage Level	Rs/kWh	0.34

Commission Analysis

8.3.2 The Wheeling Charges applicable for Distribution Open Access consumers at 33 KV/11 kV voltage level for FY 2023-24, has been determined from the ARR of

the Distribution Wires Business, as shown in the Table below:

Table 105: Wheeling Charges approved by the Commission for FY 2023-24

Sr. No.	Particulars	Units	Approved
1	Total Energy Input into Distribution System	MU	11,454.19
2	Total Wires ARR	Rs. Crore	1,193.77
3	Distribution Cost for Wires Business for 33 kV Voltage level (assuming 35% of cost at 33 kV)	Rs. Crore	417.82
4	Wheeling Charges for 33 kV/11 kV Voltage Level	Rs/kWh	0.36

8.3.3 The Wheeling Charges for FY 2023-24 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/11 kV voltage level under Section 42(2) of the EA 2003.

8.4 Applicable Wheeling Losses

The Wheeling Losses applicable for Open Access transactions for FY 2023-24 shall be as under:

Table 106: Wheeling Losses approved by the Commission for FY 2023-24

Sr. No.	Particulars	Total
1	At 33 kV level	5%
2	At 11 kV level	11%

8.5 Cross-Subsidy Surcharge (CSS)

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 APDCL has computed 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, as shown in the Table below:

Table 107: Category-wise CSS computed by APDCL for FY 2023-24 (Rs/kWh)

Particulars	Legend	Proposed
Average Billing Rate for HT Commercial category	A	11.54
Average Billing Rate for HT Bulk Supply - Govt. Edu. Inst. category	B	9.38
Average Billing Rate for HT Bulk Supply Others category	C	11.68
Average Billing Rate for HT-II Industry above 150 kW category	D	12.10
Average Billing Rate for Tea, Coffee & Rubber category	E	11.55
Average Billing Rate for Oil & Coal category	F	11.36
Average Cost of Supply	G	9.52
Cross-Subsidy Surcharge for HT Commercial category	H = A - G	2.01
Cross-Subsidy Surcharge for HT Bulk Supply - Govt. Edu. Inst. Category	I = B - G	0.00
Cross-Subsidy Surcharge for HT Bulk Supply Others category	J = C - G	2.16
Cross-Subsidy Surcharge for HT-II Industry above 150 kW category	K = D - G	2.57
Cross-Subsidy Surcharge for Tea, Coffee & Rubber category	L = E - G	2.03
Cross-Subsidy Surcharge for Oil & Coal category	M = F - G	1.84

Commission Analysis

8.5.3 The Commission has approved the CSS for FY 2023-24 for the categories eligible for Open Access as per the methodology adopted in the earlier Tariff Orders, as shown in the Table below:

Table 108: Category-wise CSS approved by the Commission for FY 2023-24 (Rs/kWh)

Particulars	Legend	Approved
Average Billing Rate for HT-II - HT Commercial category	A	9.54
Average Billing Rate for HT IV (i) - HT Bulk Supply - Govt. Edu. Inst. category	B	8.29

Particulars	Legend	Approved
Average Billing Rate for HT IV (ii) - HT Bulk Supply Others category	C	9.48
Average Billing Rate for HT V (C) - HT Industry above 150 kW category	D	9.64
Average Billing Rate for Tea, Coffee & Rubber category	E	9.33
Average Billing Rate for Oil & Coal category	F	9.17
Average Cost of Supply	G	8.02
CSS for HT-II – HT Commercial category	H = A - G	1.52
CSS for HT IV (i) - HT Bulk Supply - Govt. Edu. Inst. Category	I = B - G	0.27
Cross-Subsidy Surcharge for HT IV (ii) - HT Bulk Supply Others category	J = C - G	1.46
Cross-Subsidy Surcharge for HT V (C) - HT Industry above 150 kW category	K = D - G	1.62
Cross-Subsidy Surcharge for Tea, Coffee & Rubber category	L = E - G	1.31
Cross-Subsidy Surcharge for Oil & Coal category	M = F - G	1.15

8.6 Applicability of Tariff

The approved Retail Supply Tariffs, Wheeling Charges and CSS for FY 2023-24 shall be effective from April 1, 2023 and shall continue until replaced/modified by an Order of the Commission.

Sd/-
(A. Bhattacharyya)
Member, AERC

Sd/-
(S.N. Kalita)
Member, AERC

Sd/-
(K.S Krishna)
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 in the Tariff Order dated March 21, 2022, APDCL has submitted the report to the Commission on compliance. The Commission has reviewed the compliance of directives as submitted by APDCL and the status is as follows:

Status of Directives issued in the Tariff Order dated March 21, 2022

Directive 1: Reduction of Power Purchase Cost

- **The Commission directs APDCL to make arrangements like banking, storage facility, etc., in power procurement portfolio to match the seasonal variations in surplus and deficit situations.**
- **Also, APDCL is directed to explore new methods to optimise power purchase through utilisation of all tools available for purchase of power.**

Status of Compliance:

APDCL submitted that all plausible measures were taken to ensure optimization of power procurement cost like adopting merit order dispatch principle, etc. However, APDCL submitted that the Company is still dependent on market procurement in peak hours with the typical load profile vis-à-vis energy mix. APDCL further submitted that due to various unwarranted developments, the market price at peak hours is still very high and adding to the woes, prices of natural gas has also increased significantly in recent times. APDCL informed that the Company has floated bid for exploring the power swapping arrangement recently.

Commission views: Noted. APDCL should continue with such efforts. The Petitioner should also explore new avenues of power procurement from renewable generation sources at reasonable prices during peak hours.

Directive 2: Manpower Planning

- **APDCL is directed to carry out need-based manpower planning in consonance**

with the actual requirement and take initiative to recruit the same.

Status of Compliance:

APDCL informed that recruitment process was being initiated for various vacant and need based positions as per directive from State Government.

Commission views: Noted.

Directive 3: Capacity Building

- **APDCL shall prepare a comprehensive training programme for different levels of manpower along with a training calendar.**
- **The Training programmes should include regulatory framework, safety, consumer awareness, proper customer relationship, loss reduction and all technical matters required for distribution business.**

Status of Compliance:

APDCL informed that need based programmes were included in the training calendar within the budgetary limit. Training calendar was also submitted for appraisal of the Commission.

Commission views: Noted.

Directive 4: Replacement of defective meters

- **APDCL shall ensure replacement of all defective meters in a time bound manner. A comprehensive plan in this regard should be submitted to the Commission within 31st May, 2022.**

Status of Compliance:

APDCL submitted the action plan and status of system metering was apprised to the Commission as a part of directive in the petition No. 11 of 2022 vide No. APDCL/CGM(PP&D)/SMART METER/DBFOOT/2022/64 dated 25.11.2022. Meanwhile, APDCL is also developing the policy for replacement with associated cost in line with approval from the Commission in regard to smart meters.

Commission views: Noted. APDCL should ensure that the targeted timelines for installation of smart meters/ replacement of defective meters are adhered to.

Directive 5: Safety measures

- **The Commission directs APDCL to ensure safety of the electrical network to avoid any untoward incidents. The identified vulnerable areas should be taken up on priority. APDCL is further directed to submit quarterly reports regarding the implementation of safety measures.**

Also, the Commission directs APDCL to carry out awareness campaigns among the consumers and technical persons especially at the field levels, on electrical safety related matters.

Status of Compliance:

APDCL submitted that safety aspect is given due weightage with adequate budgetary allocation. APDCL also submitted that sensitization programmes are also being carried out periodically for consumer awareness. Meeting on issues related to electrical safety concerns and customer relationships were held in September, 2022 at Dibrugarh, Sivsagar, Tinsukia and Golaghat. Safety workshops were also organized by Consumer Advocacy Cell, AERC in association with APDCL at Bongaigaon, Jorhat and Hailakandi during the months of July, August and November, 2022 respectively.

Commission views: Noted.

Directive 6: Submission of Timely Reports

- **The Commission hereby directs APDCL to regularly submit reports pertaining to Consumer Grievance Redressal Forum, Standards of Performance of distribution licensee, etc., as specified in the relevant Regulations.**
- **The Commission further directs that the reports submitted on Standards of Performance should be accompanied with an analysis of the Standards achieved by the Company during the period of report.**

Status of Compliance:

APDCL submitted that periodical submissions are being made in compliance to the directive.

Commission views: The Commission notes that the above directive is only partially complied with. Therefore, directive has been repeated in this Tariff Order.

Directive 7: Maintenance of Project-wise Database

- **APDCL is directed to maintain database on the individual Projects under each Scheme with the following details:**
 - a) **Details/Scope of Project including activities, area covered, etc.;**
 - b) **Start date of Project;**
 - c) **Scheduled completion date of Project;**
 - d) **Funding Plan;**
 - e) **Cost-Benefit-Analysis of the Project**
 - f) **Present Status of Project, indicating physical progress in percentage terms and in monetary terms;**
 - g) **Status of Capitalisation as per Field Reports and as per Accounts;**
 - h) **Whether the intended benefits of the Project have been achieved, etc.**

APDCL should submit such Project-wise data at the time of true-up for each Year, for the Projects that have been capitalised during that Year.

Status of Compliance:

APDCL submitted that database is being maintained as per the format for all new/upcoming projects.

Commission views: Noted. The database should be regularly updated.

New Directives:

The Commission hereby issues the following new Directives to APDCL.

Directive 1: Power Purchase

- **Power Purchase cost is major component of the total cost of APDCL and therefore effective monitoring is necessary for optimisation of the Power Purchase Cost. APDCL is directed to submit reports to the Commission on actual power purchased from various sources, on quarterly basis. The Petitioner shall provide detailed justifications, if the price from the source exceeds the price approved in the respective tariff order or if power is procured from a source not approved by the Commission.**

- Further, APDCL shall continue to explore new methods to optimise power purchase through utilisation of all tools available for purchase of power.

Directive 2: FPPPA

- APDCL shall comply with the AERC (Fuel and Power Purchase Price Adjustment) Regulations, 2010 and subsequent amendments, and subsequent amendments thereof to adjust the differential cost of power purchase. All information including actual sales data required for calculation for the fuel surcharge (audited and certified by cost accountant/chartered accountant) shall be filed with the Commission within 60 days in accordance with Regulation 5.8 of the aforementioned Regulations.
- The Commission may be constrained to disallow the carrying cost arising out of gap in power purchase cost if the same is on account of APDCL's failure to recover the variation in power purchase cost in accordance with the aforesaid Regulations.

Directive 3: Constitution of CGRFs and Strengthening of the Institution of Electricity Ombudsman

- The AERC (Redressal of Consumer Grievances) Regulations, 2022 came into effect from October 21, 2022. Consumer Grievance Redressal Forums (CGRFs), at District and State levels need to be constituted within a period of 3 months from coming into effect of these Regulations. The Distribution licensee is therefore, directed to constitute the CGRFs in accordance with the aforesaid Regulations in right earnest.
- For effective consumer grievance redressal, the institution of Electricity Ombudsman also needs to be strengthened. Therefore, APDCL is directed to take necessary steps to ensure financial adequacy and independence of the office of Ombudsman in accordance with the AERC (Electricity Ombudsman) Regulations, 2022.

Directive 4: Submission of Timely Reports

- The Commission hereby directs APDCL to regularly submit reports pertaining to Consumer Grievance Redressal Forum, Standards of Performance of distribution licensee, etc., as specified in the relevant Regulations.
- The Commission further directs that the reports submitted on Standards of Performance should be accompanied with an analysis of the Standards achieved by the Company during the period of report.

Directive 5: Standards of Performance and Payment of Compensation

- The Commission directs APDCL to comply with the Standards of Performance laid down by the relevant AERC Regulations.
- The Company should also ensure payment of compensation in accordance with the Standards of Performance Regulations in case of non-compliance to the Standards. The Company should also ensure establishment of mechanism of automatic compensation as laid down in the Regulations.

Directive 5: ToD Tariffs

- TOD tariff is to be prudently extended to more consumer categories in order to flatten the load curve and lower consumption during the peak hours when the market price of power is high. APDCL is therefore, directed to carry out a detailed study of hourly consumption patterns of all HT consumer categories, based on metering data. The purpose of the study would be to identify the contribution of each category towards the peak consumption and which categories may be incentivised to further shift their consumption to off-peak hours, seasonal variation in peak and off-peak consumption levels, etc.
- Based on the above study, APDCL shall submit a report and offer suggestions for modifications of the ToD Tariff along with the next MYT Petition.

Directive 6: Charging Infrastructure for Electric Vehicles

- The Commission directs APDCL to explore the possibility of creation of charging infrastructure for electric vehicles in its area and may come up with separate capital expenditure plan along with next MYT petition for Commission's approval.

Directive 7: Rationalisation of tariff categories

- During this tariff determination process, consumers belonging to differing categories requested for change in existing category or for a separate tariff slab giving their reasoning for doing the same.
- APDCL is hereby directed to carry out a study on the impact of such change in above categorisation on the revenue, tariff, cross subsidies, etc. of the Company and submit a report on the same within 3 months of the issue of this Order. APDCL may also suggest changes to the prevailing tariff categorisation with detailed reasoning in the above report.

APDCL is directed to submit the status of compliance of above Directives to the Commission at the end of each quarter. The Commission will review the status in the month following the end of that quarter.

Sd/-

(A. Bhattacharyya)
Member, AERC

Sd/-

(S.N. Kalita)
Member, AERC

Sd/-

(K.S Krishna)
Chairperson, AERC

10 Tariff Schedule

This Chapter details the tariffs applicable in the State of Assam with effect from April 1, 2023 until replaced/modified by a subsequent 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:

- a. In case, the average PF (leading or lagging) maintained by the consumer is more than 0.85 and up to 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 up to 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 up to Unity PF, a rebate of 3% on the Energy Charges on unit consumption shall be applicable.

(b) Power Factor Penalty:

- 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 shall be levied on total unit consumption. PF penalty shall be levied on those consumers where PF is recorded electronically.

LT Category-1 Jeevan Dhara

Applicability

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 up to 1.5 kWh/day or 45 kWh per month.

Consumption	Energy Charge	Fixed Charge
For consumption up to 45 kWh per month.	Rs. 5.05/kWh	Rs. 40 per connection per month

If any Jeevan Dhara consumer consumes more than 45 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

LT Category –II: Domestic A

Applicability

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.

Consumption	Energy Charge	Fixed Charge
First 120 kWh per month	Rs. 5.70/kWh	Rs. 70/kW/ month
From 121 – 240 kWh per Month	Rs. 7.00/kWh	
Balance kWh	Rs. 7.90/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 up to 30 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.

	Energy Charge	Fixed Charge
For all consumption	Rs 7.45/kWh	Rs. 70/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 up to 30 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 (excluding institutions covered under the LT V General Purpose Supply), lodging and boarding houses.

	Energy Charge	Fixed Charge
For all consumption	Rs. 7.90/kWh	Rs. 150/kW/month

LT Category V- LT General Purpose Supply:**Applicability**

- a. This tariff shall be applicable for supply of power to consumers having Connected Load up to 30 kW to all Non-commercial and Non-domestic users of electric power like Government offices, Government Educational and cultural institutions, Government hospitals, dispensaries, Charitable institutions and Trusts (public or private formed solely for charitable or religious purposes), Dharamshala, Non-commercial boarding and lodging houses and other Non-commercial institutions, Private Educational Institutions affiliated to Secondary Education Board of Assam (SEBA) / Assam Higher Secondary Education Council (AHSEC) / Central Board of Secondary Education (CBSE) / Council for the Indian School Certificate Examination (CISCE) and Universities approved by Government of Assam

	Energy Charge	Fixed Charge
For all consumption	Rs. 6.95/kWh	Rs. 165/kW/month

- b. Government Primary and Secondary / Higher Secondary Schools/Charitable

organizations involved in eradicating hunger specially for children

	Energy Charge	Fixed Charge
For all consumption.	Rs. 6.85/kWh	Rs. 90/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.

	Energy Charge	Fixed Charge
For all consumption	Rs. 6.90/kWh	Rs. 140/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 up to 30 kW.

	Energy Charge	Fixed Charge
For all consumption.	Rs. 5.05/kWh	Rs. 65/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 up to 30 kW.

Category	Energy Charge	Fixed Charge
Rural Industries – for all consumption	Rs. 5.55/kWh	Rs. 70/kW/month
Urban Industries - for all consumption	Rs. 5.80/kWh	Rs. 80/kW/month

In addition to the above Base Tariff, the following Time of Day (TOD) tariff for LT-VIII Small Industries shall be optionally applicable:

Time Slot	Energy charge (Rs./kWh)
0600 hrs to 1700 hrs (normal)	0.00
1700-2200 hrs (peak)	(+) 2.00
2200-0600 hrs (night off-peak)	(-) 2.00

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.

Category	Charges
Domestic	Rs. 105/kW/day or Rs. 9.89/kWh whichever is higher
Non-Domestic Non- Agricultural	Rs.155/kW/day or Rs. 11.99/kWh whichever is higher
Agricultural	Rs. 65/kW/day or Rs. 5.15/kWh whichever is higher.

LT Category X- Electric Vehicles Charging Station:

Applicability

This tariff is applicable to consumers who use electricity exclusively for Electric Vehicle Charging installations at LT level.

	Energy Charge	Fixed Charge
For all consumption	Rs. 5.90/kWh	Rs. 150/kW/month

Note: Consumers can charge their own Electric Vehicles at their respective premises, paying the charge applicable to the consumer category.

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 30 kW (or 35 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% and 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 30 kW (or 35 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.

	Energy Charge	Fixed Charge
For all consumption	Rs 7.60/kWh	Rs 70/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 30 kW (or 35 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 (excluding institutions covered under the HT IV (i) Bulk Supply – Educational Institutions), lodging and boarding houses.

	Energy Charge	Fixed Charge
For all consumption	Rs. 8.00/kWh	Rs. 210/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.

	Energy Charge	Fixed Charge
For all consumption.	Rs. 6.75/kWh	Rs. 155/kVA/month

HT Category – IV: Bulk Supply

Applicability

This tariff is applicable to Bulk consumers with a Connected Load above 30 kW (or 35 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) Educational institution-

- a. Government Educational Institutions/Charitable organizations involved in eradicating hunger specially for children
- b. Private Educational Institutions affiliated to Secondary Education Board of Assam (SEBA) / Assam Higher Secondary Education Council (AHSEC) / Central Board of Secondary Education (CBSE) / Council for the Indian School Certificate Examination (CISCE) and Universities approved by Government of Assam

(ii) Others - categories not included in any of the above categories, including Government offices, Railways, Military Engineering Services, etc.

(i) Educational Institutions

	Energy Charge	Fixed Charge
For all consumption	Rs. 7.15/kWh	Rs. 150/kVA/month

(ii) Others

	Energy Charge	Fixed Charge
For all consumption	Rs. 8.10/kWh	Rs.210/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 30 kW (or 35 kVA) and up to 50 kVA, irrespective of location of the industry in rural area or urban area.

	Energy Charge	Fixed Charge
For all consumption.	Rs. 6.25/kWh	Rs. 90/kVA/month

In addition to the above Base Tariff, the following Time of Day (TOD) tariff for HT-V (A) Industries shall be optionally applicable:

Time Slot	Energy charge (Rs./kWh)
0600 hrs to 1700 hrs (normal)	0.00
1700-2200 hrs (peak)	(+) 2.00
2200-0600 hrs (night off-peak)	(-) 2.00

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.

	Energy Charge (Base Tariff)	Fixed Charge
For all consumption	Rs. 6.65/kWh	Rs. 200/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)	(+) 2.00
2200-0600 hrs (night off-peak)	(-) 2.00

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. 7.05/kWh	Rs. 280/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)	(+) 2.00
2200-0600 hrs (night off-peak)	(-) 2.00

Option -2

	Energy Charge	Fixed Charge
For all consumption	Rs. 6.65/kWh	Rs. 360/kVA/month

No TOD Tariff will be applicable for consumers who opt for Option-2.

Note: 20% rebate on total energy charges shall be applicable for Oxygen manufacturing plants under both Option-1 and 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.

	Energy Charge (Base Tariff)	Fixed Charge
For all consumption.	Rs. 7.00/kWh	Rs. 310/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)	(+) 2.00
2200-0600 hrs (night off-peak)	(-) 2.00

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.

	Energy Charge (Base Tariff)	Fixed Charge
For all consumption	Rs 8.05/kWh	Rs. 320/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)	(+) 2.00
2200-0600 hrs (night off-peak)	(-) 2.00

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 30 kW (or 35 kVA) and for whom power has been supplied at 11 kV or above.

	Energy Charge	Fixed Charge
For all consumption.	Rs. 6.55/kWh	Rs. 85/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. 190/kVA/day or Rs. 9.65/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.

	Energy Charge	Fixed Charge
For all consumption	Rs. 4.85/kWh	Rs. 190/kVA/month

HT Category – XI: Railway Traction

Applicability

This tariff is applicable to the Railways for traction loads.

	Energy Charge	Fixed Charge
For all consumption	Rs. 6.75/kWh	Rs. 320/kVA/month

HT Category – XII: Electric Vehicles Charging Stations

Applicability

This tariff is applicable to consumers who use electricity exclusively for Electric Vehicle Charging installations at HT level.

	Energy Charge	Fixed Charge
For all consumption.	Rs. 7.40/kWh	Rs. 180/kVA/month

Note: Consumers can charge their own Electric Vehicles at their respective premises, paying the charge applicable to the consumer category.

- ✍ This Tariff Order shall continue to be applicable until it is replaced/modified by a subsequent Order of the Commission.
- ✍ This Tariff Order is signed by the Assam Electricity Regulatory Commission on March 29, 2023.
- ✍ These Tariffs take effect from April 01, 2023.

Sd/-
(A.Bhattacharyya)
Member, AERC

Sd/-
(S.N Kalita)
Member, AERC

Sd/-
(K.S Krishna)
Chairperson, AERC

11 Annexure-1

Minutes of the 31st Meeting of the State Advisory Committee

Venue: AERC Conference Hall.

Day/Dated: Monday, 30th January, 2023

List of members/special invitees: At Annexure-A (Enclosed)

The 31st Meeting of the State Advisory Committee (SAC) was chaired by the Hon'ble Chairperson, AERC, Kumar Sanjay Krishna, IAS, (Retd.).

At the onset, Hon'ble Chairperson, AERC welcomed all members and invitees. Hon'ble Chairperson informed that the utilities have submitted Tariff petitions for True up for FY 2021-22, Annual Performance Review for FY 2022-23 and Aggregate Revenue Requirement for FY 2023-24. The Commission directed the petitioners to publish the petition in abridged form for information of the public and for comments/suggestions. In response to the petitions, several stakeholders submitted their views. The Hon'ble Chairperson informed that a public hearing on the tariff petitions will be held in the month of February. Shri Krishna observed that the State Advisory Committee has an important advisory role to play and requested the members to give constructive views and suggestions to enable the Commission to complete tariff determination process within the timeline. The Hon'ble Chairperson informed that as MD, APDCL could not be present in the meeting, another meeting with APDCL would be held very soon so that more meaningful discussions on the proposed APDCL tariff hike and increase in power purchase cost etc, could take place. Thereafter, the agenda items were taken up for discussion in seriatim.

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

Agenda Item No 2 : Brief presentation on Action Taken Report of AEGCL, APGCL and APDCL ,

a) APGCL

A brief presentation by Mr. Jayjeet Bezbaruah, Assistant Director (Engg) on action taken report of APGCL, AEGCL followed by comment and views from the Members.

During the presentation on action taken report of APGCL, Shri Dilip Sarma Member opined that conversion of grants to equity by APDCL will lead to substantial increase in the Retail Tariff. Shri Subodh Sharma, Member mentioned that while it may be legitimate to convert the grants into equity but it should not be allowed as the cost of retail Tariff which will ultimately burden the consumers. Thereby, Shri Sharma requested AERC to look into the whole issue from the retail consumer's perspective.

The Hon'ble Chairperson, AERC clarified that conversion of grant to equity pertains to all the three utilities and has been claimed in the respective tariff as Return on Equity by each utility. The Hon'ble Member, AERC explained that it is legitimate to convert the grants to equity and assured that the Commission will look into the matter so that the burden on the consumers can be minimized, to a certain extent. Hon'ble Member also mentioned that CERC did this long back in 2001 along with some other states.

Member Shri C. Baruah mentioned that 3 years back, there was a plan to start a pumped storage station in the Chandrapur area. However, no survey was done and finally the plan did not materialize. MD, APGCL informed that a formal survey had taken place and a report has been submitted. According to the survey, there is a possible generation of 40 MW to 70 MW. Member Baruah advised APGCL to visit the Purulia Pumped Storage Project to gain necessary experience to implement the project successfully.

Shri N Borthakur asked APGCL to study the feasibility and financial viability of the Chandrapur project considering per unit storage cost and submit a report on the same to the Commission.

b) AEGCL

During the presentation on action taken report of AEGCL Shri N Borthakur enquired about the status of 400 KV transmission line of Biswanath Chariali to Khumtai as NRL is to draw power for their new unit from Khumtai GSS. MD, AEGCL informed that, route survey has been completed from Biswanath Chariali to Khumtai. The matters regarding funding of the transmission line and tendering have already been discussed with the Principal Secretary, GoA. MD, AEGCL further informed that no funding could be arranged for the project so far. The land for Khumtai GSS has been handed over to AEGCL.

The Commission asked AEGCL to implement the project as early as possible and tie up with some funding agency on priority basis. CGM, AEGCL informed that the initial load of new unit of NRL will be arranged at 220 KV from Khumtai GSS and the Samaguri 220KV line will cater power to the GSS till the 400 KV Biswanath Chariali -Khumtai line is complete.

MD, AEGCL informed that the proposal for augmentation of 220/132 KV Rangia GSS has been forwarded to GoA under SOPD-G scheme. Hon'ble Member AERC suggested that AEGCL should try to collect funds from private lenders at a cheaper rate than Govt lending rate. Shri Subodh Sharma agreed that as AEGCL have high equity, other options for cheaper loans should be explored.

Shri Abhijit Barooah stated that, AEGCL is paying 10.5% interest on GoA loan. The utility should take up this matter with GoA to reduce the interest rate for the benefit of the consumers. Secretary, Power (E) Department, GoA informed that no proposal in this regard has been received and, if requested, the matter will be looked into.

Shri Dilip Sharma stated that if power is supplied at lower than the rated voltage then losses will be more. Hence, action should be taken to improve voltage profile and reduce transmission loss. Shri Subodh Sharma observed that AEGCL has hardly taken any steps to reduce the losses and the Transmission losses for FY 2023-24 is 3.30% as per the submission of the tariff petition. Shri Sharma also enquired regarding steps taken to improve voltage at Nalkata. CGM, AEGCL informed that new grid substations are being constructed which will result in voltage improvement. Also, capacitor banks have been installed at Nalkata to improve voltage.

Shri Abhijit Barooah suggested that procuring power from neighboring Bhutan may be explored where power is available at a cheaper rate. Shri Prabhat Bezbaruah informed that PTC India Ltd signed PPAs with Power Utilities of Bhutan for supply of power from various hydro stations to DISCOMs in India. For Assam, power from Mangdechhu Hydro Plant has been procured through similar arrangement.

Shri Subodh Sharma enquired about the 132 KV Substation in Udharband which was sanctioned in 2018. He stated that the industries are affected because of the power shortage and poor voltage profile in that area. MD, AEGCL informed that the GSS will be commissioned under AIIB scheme. Shri Subodh Sharma requested to expedite the works for the GSS so that power scenario in Cachar improves.

Agenda Item No 4: Presentation and Discussion on Tariff Petitions by the utilities

a) Presentation by APGCL

A Power Point Presentation was made by representative from APGCL regarding approval of True up for FY 2021-22, Revised Capex Plan for FY 2022-23 to FY 2023-24, Petition for Annual Performance Review for FY 2022-23 and Revised ARR for FY 2023-24.

MD APGCL, Shri B. Bhuyan mentioned that Gas price increased by ~ 379% from Sept'21 to Oct'22. He highlighted the substantial increase in gas price which are as follows: from April 21 to September 21--1.79 \$/MMBTU, from October-21 to March 22-- 2.90 \$/ MMBTU, from April 22 to September 22 -- 6.10 \$/MMBTU and from October-22 to March 23 -- 8.57 \$/MMBTU. Shri Bhuyan also informed that a Kirit Parikh Committee was formed by GOI, and the Committee has fixed a base price of 4 \$/MMBTU with a cap of 6.5 \$/MMBTU. The same has been accepted by MOPNG and waiting for the cabinet approval. MD APGCL also mentioned that once the approval is done the gas price is likely to decrease.

During the presentation Shri A Baruah from CII expressed concern over increase in generation cost of the gas-based power plants of APGCL. Shri Baruah urged to make an analysis on whether APDCL should buy power from the market/other sources and stop buying power from APGCL considering APGCL's current high submissions.

Shri N Borthakur also urged to make a proper analysis on whether it is beneficial for the APDCL to purchase power at high cost or they should procure power from the market.

MD APGCL mentioned that, APDCL purchased about 11000 units per annum. He mentioned that out of that 11000 units APGCL cater around 13%-17% of the quantum. He also mentioned that till last year APGCL was providing power at a cheaper price (around 40% less) considering the average power purchase cost of APDCL. He also pointed that due to the high gas price the generation cost of the other stations will also go up simultaneously keeping the same impact in the Retail Tariff.

Shri A Bordoloi, Member, advised APGCL to plan for some bigger solar projects as the cost of the Solar is less compared to the Gas based generating stations.

Shri Subodh Sharma and Shri C Baruah enquired about the current status of NRPP STG unit. They also asked regarding MU loss due to the non-generation of NRPP STG unit.

Representative of APGCL mentioned that around 35%-40% generation loss occurred due to STG unit break down. MD APGCL informed that the STG unit will be revived by April 2023.

Shri N. Borthakur enquired the reason of high capital expenditure given by APGCL for the NRPP plant.

Representative from APGCL explained that Hot Gas Path Inspection (HGPI) of NRPP at the end of 24000 Running hours will be done by APGCL. He also mentioned that, estimated cost for the HGPI work is 148Cr. This cost has been divided into two equal parts of 74 Crore. First part is proposed for FY 2023-24 to initial procurement of spares and the second part is proposed for FY 2024-25 to procure balance spares and execute the work. APGCL mentioned that HGPI will contain advance gas path (AGP) components to upgrade the present technology installed in the GT system. This upgradation will eliminate the need for the Combustion inspection at the end of every 12000 Running Hours. This will reduce maintenance and increases gross generation of NRPP by reducing the outage hours due to planned maintenance shutdown.

Shri Subodh Sama Member SAC also enquired what APGCL is planning to do with the refurbished components. APGCL mentioned that the refurbished components will be used in next HGPI at the end of 48000 Running hours making the cost of next HGPI less than the first one. As it is a planned activity by APGCL which is a state-owned entity, Members of SAC noted the point and directed APGCL to maximize the gross generation by reducing the outage hours by planned maintenance shutdown.

Shri Borthakur member SAC also requested APGCL to provide a detailed report of increase in generation once the HGPI work is completed.

b) Presentation by AEGCL

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

In True-up for FY 2021-22, AEGCL has shown ARR of Rs.403.98 Crore and a gap of Rs. 14.89 Crore. For SLDC, in True-Up, ARR of Rs. 6.48 Crore and surplus of Rs. 0.88 Crore has been shown.

For FY 2022-23, AEGCL & SLDC have claimed ARR of Rs.620.07 Crore & Rs. 7.63 Crore and a gap of Rs. 159.62 Crore & Rs. 1.15 Crore respectively.

For FY 2023-24, AEGCL & SLDC has shown ARR of Rs.703.39 Crore & Rs. 10.31 Crore and gap of Rs 212.30 Crore & of Rs.3.40 Crore respectively.

AEGCL informed that transmission loss of 3.32% was recorded in FY 2021-22 and projected a loss of 3.30% through APR and ARR. AEGCL projected transmission charge of Rs.0.62 Rs./kWh , Transmission access charge of Rs 7625.04 /MW/day and SLDC charge of Rs. 97.68/MW/Day for FY 2023-24.

As suggested by the members in the last SAC meeting, AEGCL also made a presentation with a power map of Assam with existing and proposed GSS and lines.

Hon'ble Chairperson reiterated that another SAC meeting to discuss the tariff petitions of APDCL will be held in February and MD, APDCL and along with other officials from the Company would be present during that meeting.

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

S/d-
Secretary,
Assam Electricity Regulatory Commission

LIST OF MEMBERS, SPECIAL INVITEES, AND OFFICERS PRESENT.

MEMBERS

1. Kumar Sanjay Krishna, IAS (Retd), Chairperson, AERC
2. Shri Satyendra Nath Kalita, Member (Technical), AERC
3. Shri Gautam Talukdar ,Secretary, Power (E) Department, Government of Assam
4. Shri Niranjana Borah, Deputy Secretary, Finance Department, Government of Assam.
5. Shri Subodh Sharma, Consumer Activist
6. Shri Champak. Baruah, Ex-Member (T), APDCL & Member, CGRF (Ghy)
7. Shri Dilip. Kr. Sarma, Ex.Executive Director, PGCIL
8. Shri Prabhat Bezboruah, Ex. Chairman TRI
9. Shri B Barpujari, Ex. Executive Director IOC AOD
10. Shri Nikunja Borthakur, Sr, CGM CA & Director, NRL
11. Smt. Vikali Chishi, Sr Manager, Assam Gas Company Ltd.
12. Shri Arin Bordoloi, Ex GM NTPC
13. Shri Deepakananda Bharali, Ex. GM IOC
14. Dr Kalpana Sarma, Ex-Associate Professor of Physics, Cotton University
15. Shri Hemanga Deka, Scientific Officer, AEDA
16. Shri Saurabh Agarwal, FINER
17. Shri Surendra Chowkhani, FINER.
18. Shri Abhijit Sharma, Secretary. ABITA
19. Shri Abhijit Barooah, Ex-Chairman, CII Assam Branch

SPECIAL INVITEES

1. Shri Bibhu Bhuyan, Managing Director, APGCL
2. Shri Debajyoti Das, Managing Director, AEGCL

OFFICERS FROM AEGCL & APGCL

AEGCL

1. Shri Loknath Chowdhury, CGM, AEGCL

2. Shri Hemanta Kr Sharma, CGM,SLDC,AEGCL
3. Smt Rodali Khaund, DGM, SLDC, AEGCL
4. Ashutosh Bhattacharya,DGM,SLDC,AEGCL
5. F.H Hashmi,DGM,AEGCL
6. Shri Debasish Paul, AGM, AEGCL
7. Shri Bidyut Das,Consultant,AEGCL
8. Shri Dipmoni Nath,AM,AEGCL.

APGCL

1. Shri Suresh Kaimal,CGM,APGCL
2. Shri Pankaj Bikash Sharmah,AGM,APGCL.
3. Shri Sunny Kr. Singh,Consultant,APGCL.

OFFICERS FROM AERC

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

12 Annexure-2

Minutes of the 32nd Meeting of the State Advisory Committee

Venue: AERC Conference Hall.

Day/Dated: Thursday, 9th February 2023

List of members/special invitees: At Annexure- A (Enclosed)

The 32nd Meeting of the State Advisory Committee (SAC) was chaired by the Hon'ble Chairperson, AERC, Kumar Sanjay Krishna, IAS, (Retd.).

At the onset, Hon'ble Chairperson, AERC welcomed all members and invitees. Hon'ble Chairperson asked the members to discuss on the agenda items.

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

Agenda 1: Presentation by APDCL

MD, APDCL informed that since reform the peak demand has reached from 646 to 2426 MW, and average daily consumption has also increased from 9.89 to 32.86 MU. MD, APDCL further informed that APDCL ranks 4th on DISCOM performance however as per consumer service rating APDCL is category C, the area on which APDCL needs to be improved.

MD, APDCL informed that in True Up for FY 2021-22, the energy handled is 9% more, energy sales is 6% more, revenue is 7% more and distribution loss is 1.95% more. Also, APDCL received less government subsidy of around Rs 37 Cr. There is also a significant net gap of Rs 228.9 Cr due to the adjustment of a bill of Rs 53 Cr (net), moderation of PoC charge and an increase of power purchase, and a hike in market price since Oct 21 (coal crisis).

MD, APDCL informed that in APR for FY 2022-23, the distribution loss of 16.50% against the approved loss of 15.00%. There is also a massive increase in Power cost of Rs 2008 Cr mainly due to a massive hike in natural gas prices and lesser receipt of power purchase/tariff subsidy from Govt. of Rs 210 Cr. MD, APDCL further informed that the net gap in APR is around Rs 1368 Cr.

MD, APDCL also informed that in ARR the cumulative revenue requirement for FY 2023-24 is Rs 10,779.60 Cr and the proposed ACoS is Rs 9.44 per kWh for FY 2023-24 which SAC Members enquired whether subsidy is taken into account. MD, APDCL informed that subsidy is not accounted in ACoS.

SAC Member informed the Commission that in Jal Jeevan Mission (JJM) it has been observed that below-rating transformers are been used by the contractor and, in many cases, safety rules are not been followed, and APDCL are also not been involved in the decision making process. Hon'ble Chairman directed the representative from Government to take up the matter. Principal Secretary Power, informed that such a matter earlier was never brought to the notice. However, a Monitoring Committee shall be soon formed which will look into the matter. MD, APDCL further informed that field officers shall also be instructed to revisit such sites.

Hon'ble Chairman also informed that Chief Inspector has complained regarding the safety measures in the Smart City project, which should also be taken up by APDCL.

SAC Member further enquired that in the annual account of APDCL under revenue bill and collection, some extra expenses have been observed around Rs 114 Cr. MD, APDCL informed that for revenue billing ARMS in-house system is used but for bill collection mainly outsource manpower is being utilized. Also, extra expenses need to be given in the form of collection per bill and it also includes some miscellaneous expenses.

SAC Members discussed that in Assam around 80% are domestic consumers and 20% are industrial consumers and these 20% consumers are paying the highest tariff in order to cross-subsidies other consumers. This may result in the shift of industrial consumers to other locations like Bhutan which is 100 km away from Assam and where the tariff is substantially low. MD, APDCL informed that tariff is designed in such a way to make electricity affordable for all consumers, and that is why the domestic consumers are cross-subsidized by industrial consumers maintain within $\pm 20\%$ of the average cost of supply as per National Tariff Policy.

SAC Members also suggested developing monitoring of high-power purchases, in order to have control over the selling of surplus power at a lower rate and purchasing at a higher rate. MD, APDCL informed that already power purchase is monitored by APDCL and many upcoming PPA's are taking place to have base load and to meet RPO compliance for the State of Assam.

SAC Members enquired about the road map of APDCL to improve the service as the consumer service rating of APDCL is category C. MD, APDCL informed that various measures are been taken up like improving the infrastructure, online service for quick process of applications for electricity connections, billing control of the consumers by using smart meters, consumers grievances cell to resolve any issues and customer cell, etc. SAC Members also enquired whether consumers have to pay for the service improvement, to which MD, APDCL replied that no cost shall be loaded to the consumers and many such works have been considered in RDSS.

Agenda 2: Presentation by Shri Subodh Sharma

Member, Shri Subodh Sharma informed that a systematic system study of the new circles along with the exercise of designing of optimum distribution system was not made in a professional manner contrary to the earlier strategy adopted for APDRP schemes. Thus, the AT&C loss reduction exercise remained incomplete along with some energy auditing schemes taken under RAPDRP. He suggested that APDCL should prioritize a system study circle-wise and design an optimum distribution network followed by execution of the works for system improvement.

Shri Subodh Sharma further informed that the technical losses of APDCL have to compensate by the consumer in the tariff. In FY 2020-21, AEGCL had a technical loss of 3.34% in its transmission network and it remained almost the same in FY 2021-22 also. Again, PGCIL accounted for a transmission loss of 2.49% in FY 2020-21 for delivering its power to AEGCL, which surprisingly rose to 2.93% in FY 2021-22. He suggested that such a progressive increase in losses should be checked instead of passing it to the consumers.

Shri Subodh Sharma also emphasizes having an effective need for a monitoring mechanism to monitor the progress of procurement of power purchase on real time basis. He further shows his concern about the conversion of Government grants into equity which will sour up at the cost of tariff hikes.

Shri Subodh Sharma also discussed that in many instances it has been observed necessary protective and isolation devices as well as earthing norms are not been followed as per electrical installation with relevant Electricity rules 2005, Central Electricity Authority Guidelines, and BIS specifications etc. And some of the accidents, that had taken place in the

respective circles could have been averted. As a result, such inadequacies, need to be included in technical reforms projects.

SAC Members also informed that under section 135 of EA 2003 it has been observed that in many cases APDCL lost the case in the court because of weak FIR reports and inspection of the site by Police officers who do not deal with electricity business. In such cases, Members suggested having a technical committee expert who can help in resolving such issues at the first instance. APDCL officials informed the Members that in many cases APDCL helps in such verifications to the Police Department at the ground level.

Hon'ble Chairperson informed the Members that the public hearing for Tariff is scheduled on 28th February 2023 at 10.30 AM and the suggestions from any members will be highly appreciable which will help the Commission for setting the Tariff.

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

S/d-
Secretary,
Assam Electricity Regulatory Commission

LIST OF MEMBERS, SPECIAL INVITEES, AND OFFICERS PRESENT IN THE MEETING OF THE 32ND SAC

MEMBERS

1. Kumar Sanjay Krishna, IAS (Retd), Chairperson, AERC
2. Shri Satyendra Nath Kalita, Member (Technical), AERC
3. Shri Neeraj Verma, Principal Secretary, Power (E) Department, GoA
4. Shri Subodh Sharma, Consumer Activist
5. Shri Champak. Baruah, Ex-Member (T), APDCL & Member, CGRF (Ghy)
6. Shri Arin Bordoloi, Ex GM NTPC
7. Shri Abhijit Sharma, Secretary. ABITA
8. Shri D. Bharali, Ex. GM IOC
9. Shri Dilip. Kr. Sarma, Ex.Executive Director, PGCIL
10. Ms. Vikali Chishi, Sr. Manager, AGCL
11. Shri Kumud Medhi, Secretary, NESSIA
12. Shri Abhijit Barooah, Ex-Chairman, CII Assam Branch
13. Prof. N B Dev Choudhury, NIT Silchar
14. Dr Kalpana Sarma, Ex-Associate Professor of Physics, Cotton University
15. Shri Surender Chowdhuri, Director, FINER

SPECIAL INVITEES

1. Shri Rakesh Kumar, IAS, Managing Director, APDCL
2. Shri Bibhu Bhuyan, Managing Director, APGCL

OFFICERS FROM APDCL. AEGCL & APGCL

APDCL

1. Mir Rafiul Amir Dewan, CGM (Com&EE), APDCL
2. Shri Putul Ch. Bhagowati, CGM (D), LAR, APDCL
3. Shri Sumit Kr. Singha, AGM, APDCL
4. Shri Nilmadhab Deb, AGM (F&A), APDCL

5. Shri Pradeep Kr. Baishya, AGM (TRC), APDCL

APGCL

1. Shri Hitendra Gayari, OSD to Chairman,APGCL

OFFICERS FROM AERC

1. Shri Manoj Kumar Deka, IAS(Retd.), Secretary
2. Smt. Panchamrita Sharma Joint Director (RA & FP)
3. Shri Nipen Dekha, Deputy Director (Gen. PPA Procurement & Planning)
4. Smt Ronkita Baruah, Deputy Director (Engg.)
5. Shri Jayjeet Bezbaruah, Assistant Director (Engg.)
6. Shri Kishore Rajkumar, Assistant Director (IT& RIMS)
7. Smt. Punam Rabha, Assistant Director (Tariff)
8. Shri A.N Dev Choudhury, Consultant (Tariff)