



**KARNATAKA ELECTRICITY REGULATORY  
COMMISSION**

**TARIFF ORDER 2022**

**OF**

**KPTCL**

*ANNUAL PERFORMANCE REVIEW FOR FY21*

**&**

*APPROVAL OF ANNUAL REVENUE REQUIREMENT*

**&**

*REVISION of TRANSMISSION TARIFF FOR FY23 TO FY25*

*4<sup>th</sup> April, 2022*

**No. 16 C-1, Miller Tank Bed Area,  
Vasanthnagar, Bengaluru-560 052**

**Phone: 080-22268677/22268678/22268679**

**Fax: 080-22268667/22370214**

**Website: <https://karunadu.karnataka.gov.in/kerc>**

**E-mail: kerc-ka@nic.in**



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<b>ABBREVIATIONS</b>	
ABT	Availability Based Tariff
A & G	Administrative & General Expenses
ALDC	Area Load Dispatch Centre
APR	Annual Performance Review
ARR	Annual Revenue Requirement
ATE	Appellate Tribunal for Electricity
BESCOM	Bangalore Electricity Supply Company
CAPEX	Capital Expenditure
CERC	Central Electricity Regulatory Commission
CEA	Central Electricity Authority
CESC	Chamundeshwari Electricity Supply Corporation
CPI	Consumer Price Index
CWIP	Capital Work in Progress
DA	Dearness Allowance
DPR	Detailed Project Report
EA	Electricity Act
EC	Energy Charges
ERC	Expected Revenue From Charges
ESAAR	Electricity Supply Annual Accounting Rules
ESCOMs	Electricity Supply Companies
FoR	Forum of Regulators
FY	Financial Year
GESCOM	Gulbarga Electricity Supply Company
GFA	Gross Fixed Assets
GoI	Government Of India
GoK	Government Of Karnataka
HESCOM	Hubli Electricity Supply Company
HP	Horse Power
ICAI	Institute of Chartered Accountants of India
IFC	Interest and Finance Charges
IEGC	Indian Electricity Grid Code
IW	Industrial Worker
KASSIA	Karnataka Small Scale Industries Association
KEB	Karnataka Electricity Board
KER Act	Karnataka Electricity Reform Act
KM/Km	Kilometre
KPCL	Karnataka Power Corporation Limited
kV	Kilo Volts
kVA	Kilo Volt Ampere
kW	Kilo Watt
kWH	Kilo Watt Hour
LDC	Load Despatch Centre
MAT	Minimum Alternate Tax
MD	Managing Director

MESCOM	Mangalore Electricity Supply Company
MFA	Miscellaneous First Appeal
MIS	Management Information System
MoP	Ministry of Power
MU	Million Units
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi Year Tariff
NFA	Net Fixed Assets
NTP	National Tariff Policy
O&M	Operation & Maintenance
P & L	Profit & Loss Account
PCKL	Power Corporation of Karnataka Ltd.
P & G Trust	Pension & Gratuity Trust
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R & M	Repairs and Maintenance
ROE	Return on Equity
ROW	Right of Way
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition System
SLDC	State Load Despatch Centre
SRLDC	Southern Regional Load Dispatch Centre
STU	State Transmission Utility
TSA	Transmission System Availability
TCC	Total Contracted Capacity
TR	Transmission Rate
WPI	Wholesale Price Index
WC	Working Capital



**KARNATAKA ELECTRICITY REGULATORY COMMISSION****No.16C-1. Miller Tank Bed Area, Vasanthnagar  
BENGALURU - 560 052****Dated 4<sup>th</sup> April, 2022****In the matter of:****Application of the Karnataka Power Transmission Corporation Limited, in respect of the Annual Performance Review for FY21, and Approval of Annual Revenue Requirement and Revision of Transmission Tariff for FY23 to FY25.****Present: Shri H.M. Manjunatha  
Shri M.D. Ravi****Officiating Chairman  
Member****O R D E R**

The Karnataka Power Transmission Corporation Ltd (hereinafter referred to as KPTCL) is a Transmission Licensee, under the provisions of the Electricity Act, 2003. KPTCL, in terms of the provisions of the KERC (Tariff) Regulations, 2000 and KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006, as amended from time to time, has filed its application on 30<sup>th</sup> November, 2021, for Annual Performance Review for FY21, as per the audited accounts and approval of ARR and transmission tariff for the next control period FY23 to FY25.

In exercise of the powers conferred under Sections 62 and 64 and other provisions of the Electricity Act, 2003 and the KERC (Tariff) Regulations, 2000 read with the KERC (Terms and Conditions for Determination of Transmission

Tariff) Regulations, 2006, as amended from time to time and other enabling Regulations, the Commission has considered the said application of the KPTCL. The item-wise analysis, review and the Commission's decisions thereon are brought out in the subsequent chapters of this Order.

## CHAPTER – 1

### INTRODUCTION

#### 1.0 A brief Profile of the State Transmission Utility - KPTCL

The Karnataka Power Transmission Corporation Limited, (KPTCL) is a transmission licensee under Section 14 and a State Transmission Utility (STU) under Section 39 of the Electricity Act, 2003 (hereinafter, referred to as the Act).

The KPTCL is a Company incorporated on 28<sup>th</sup> July, 1999, registered under the Companies Act, 1956 and has commenced its operations from 1<sup>st</sup> August, 1999. Initially the KPTCL performed the functions of both Transmission and Distribution of electricity in the State, which were earlier carried out by the erstwhile the Karnataka Electricity Board (KEB).

After unbundling and formation of separate Distribution Companies, the KPTCL was assigned the functions of transmission of power from 1<sup>st</sup> June, 2002 as a Transmission Company, which also functions as the State Transmission Utility (STU) in Karnataka. The Distribution business was entrusted to the newly created Electricity Supply Companies (ESCOMs).

The bulk power purchase activity was separated from the functions of KPTCL as per the Electricity Act, 2003 from 10<sup>th</sup> June, 2005 and the KPTCL became an exclusive transmission company. The co-ordination of bulk power purchase activities has been vested with the newly formed Power Company of Karnataka Ltd., (PCKL).

The KPTCL enables the ESCOMs to supply electricity to around 2.75 Crores consumers of different categories spread over the State covering an area of about 1.92 lakh square kilometers. To transmit power from different sources of generation, besides the CTU network, KPTCL, as on 31.03.2021, has 1258 substations and 38841 Ckt. kms of transmission lines which include 66 kV, 110 kV, 220 kV and 400 kV lines spread over the State.

To carry out its functions in a smooth and effective manner, the KPTCL has created six transmission zones, each headed by a Chief Engineer; sixteen

circles, each headed by a Superintending Engineer; and sixty-two divisions, each headed by an Executive Engineer. The operation and maintenance of the transmission system in the State is looked after by thirty-five Transmission Line and Substation Maintenance Sub-divisions. Also, there are twenty-seven Transmission major works divisions to carry out the construction activities related to transmission system of the State.

Further, there are six Relay testing Circles covering sixteen relay Testing Divisions for protection, troubleshooting and maintenance of protective relays, metering and testing. These relay testing wings also carry out the pre-commissioning tests of new sub-stations, besides testing of interface meters at regular periods. Separate Hotline wing headed by the Chief Engineer is established. Separate hotline Circle is established with 2 hotline Divisions and 6 Sub-divisions to facilitate live line work (without taking LC) using hot stick method and also bare hand technique using insulated elevated platform for replacing punctured / broken insulator / deteriorated jumps and establish connectivity of receiving station / sub-station.

### 1.1 KPTCL at a glance:

Sl. No	Particulars		31.03.2021
1.	<b>Generation Capacity (connected to Transmission System)</b>	MW	
	a) KPC Hydro and Thermal	MW	8852
	b) CGS (Karnataka Share)	MW	4415
	c) NCE, IPPs and Others	MW	17256
2.	<b>No. of Receiving Sub-Stations</b>		
	a) 400 kV	Nos.	8
	b) 220 kV	Nos.	114
	c) 110 kV	Nos.	446
	d) 66 kV	Nos.	693
3	<b>Length of Tr. Lines</b>		
	a) 400 kV	CKms.	3701
	b) 220 kV	CKms.	12192
	c) 110 kV	CKms.	11191
	d) 66 kV	CKms.	11787
3.	Gross Assets as at the end of FY21	Rs. in Crores	24,289.31
4.	<b>Total employees:</b>		
	a) Sanctioned	Nos.	16,348
	b) Working	Nos.	9,735
5.	Demand for Transmission charges of Power to ESCOMs (FY21), wheeling and Miscellaneous Charges	Rs. in Crores	3,898.52
6.	Collection of transmission charges	Rs. in Crores	3,082.86
<b>Source: KPTCL –SLDC load curve, KPTCL Website, APR Filing and Annual Accounts</b>			

## 1.2 Transmission capacity of KPTCL in FY21:

The total transmission capacity in the State was 23078 MW during FY21. The ESCOM-wise transmission capacity for FY21 is as follows:

### ESCOM WISE TRANSMISSION CAPACITY IN MW – FY21

Company	Capacity in MW
BESCOM	11556
MESCOM	1785
CESC	2592
HESCOM	4425
GESCOM	2720
<b>TOTAL</b>	<b>23078</b>

## CHAPTER – 2

### TARIFF APPLICATION PROCESS

#### 2.1 BACKGROUND:

The Commission has approved the ARR and transmission tariff of KPTCL for FY21 in its Tariff Order dated 9<sup>th</sup> June, 2021. The KPTCL in its application dated 30<sup>th</sup> November, 2021, has sought approval of the revised ARR under APR for FY21 and approval of ARR and Transmission Tariff for next control period FY23 to FY25.

#### 2.2 Commission's Directives and Compliance by KPTCL:

The Commission, in its Tariff Order dated 9<sup>th</sup> June, 2021, has issued directives on various matters pertaining to transmission system maintained and operated by the KPTCL. The Commission has directed the KPTCL to ensure full compliance of the directives in a time bound manner.

The summary of the directives issued by the Commission and compliance by the KPTCL thereof, is appended vide Appendix, to this Order.

#### 2.3 Public Hearing Process:

On receipt of the application of the KPTCL dated 30<sup>th</sup> November, 2021 filed for approval of APR for FY21 and ARR and transmission tariff for FY23 to FY25, the Commission has communicated its preliminary observations on its application on 8<sup>th</sup> December, 2021. The KPTCL has filed its replies on 20<sup>th</sup> December, 2021.

The Commission, vide its letter dated 22<sup>nd</sup> December, 2021, informed KPTCL that its tariff application has been treated as petition in terms of the Tariff Regulations subject to further verification and validation. Accordingly, the KPTCL was directed to publish the summary of the application in the newspapers within five days, in accordance with Clause 5(1) of the KERC (Tariff) Regulations, 2000, as amended from time to time.

In compliance of the above directions of the Commission, the KPTCL has published the summary of its application in the following newspapers on 27.12.2021 and 28.12.2021.

- Deccan Herald
- The Hindu
- Prajavani
- Udayavani

The KPTCL's Application for approval of APR for FY21 and ARR and determination of Transmission tariff for FY23 to FY25, was also made available on the web-sites of the KPTCL and the Commission. In response to the notices published in the above newspapers calling for objections on the approval of APR for FY21 and ARR and transmission tariff of the KPTCL for FY23 to FY25, the Commission has not received any objections from stakeholders within the specified time.

The Commission held a Public Hearing on **15<sup>th</sup> February, 2022** in the Court Hall of the Commission and one person made oral submissions during the public hearing.

#### **2.4 Consultation with Advisory Committee of the Commission:**

The meeting of the Advisory Committee of the Commission was held on **14<sup>th</sup> March, 2022**. The various issues involved in the KPTCL's application were discussed in the meeting and the Members offered valuable suggestions. The Commission has taken note of these suggestions, while finalising this Order.

## CHAPTER – 3

### PUBLIC CONSULTATION

#### SUGGESTIONS / OBJECTIONS & REPLIES

**3.1** In pursuance of the provisions of Section 64 of the Electricity Act, 2003, the Commission has undertaken the process of public consultations, inviting suggestions / views / objections from the interested stakeholders on the Application filed by KPTCL for APR for FY21 and approval of ERC, ARR and Transmission Tariff for FY23, FY24 and FY25 under the MYT Principles. Accordingly, the Commission held a Public Hearing on 15<sup>th</sup> February, 2022, in the Commission's Court Hall to provide an opportunity for those persons who are interested to express their views/ objections on the above application filed by KPTCL.

#### **3.2 Written Objections:**

The Commission did not receive any written objection from any individual stakeholder. However, BESCOM has submitted its written objection received in the Commission's office, after the due date. The Same was forwarded to KPTCL via e-mail for which KPTCL has not responded. Commission directs BESCOM to submit written objection within the due date, in future.

#### **3.3 Public Hearing:**

During the Public Hearing held on 15<sup>th</sup> February, 2022, the M.D, KPTCL, made a brief presentation on the profile, performance and achievements of KPTCL during the FY21 and sought approval of ARR and Transmission Tariff for FY23-25.

Sri. G.N Krishnappa, Electrical Contractor made oral submissions before the Commission and pointed out that KPTCL and ESCOMs are taking one year to issue NOC and as per SoP Regulations penalty has to be levied. However, he also pointed out that there is abnormal delay in Commissioning of Mandur Sub-station, due to delay in laying of transmission line. He further, requested the Commission not consider the tariff hike proposals of KPTCL.



**Commission views:**

During the public hearing, the Commission sought certain clarifications on the tariff petition filed by KPTCL and the KPTCL has furnished replies to the points raised by the Commission. Further, the KPTCL was directed to complete the Mandur Sub-station work as early as possible so that investments should not become futile. Commission has directed KPTCL to develop Fast-Track/online application for issue of NOC in co-ordination with ESCOMs.

**KPTCL's response:**

KPTCL stated that the laying of transmission line to Mandur Sub-station is struck up because ROW issues and further, it has stated that KPTCL has planned to call tender for laying of UG cable for Commissioning of the subject project. The Commission has taken note of the reply submitted by KPTCL.

## CHAPTER – 4

### ANNUAL PERFORMANCE REVIEW FOR FY21

#### 4.0 KPTCL's Application for APR for FY21:

The KPTCL, in its application dated 30<sup>th</sup> November, 2021 has prayed the Commission to approve the Annual Performance Review (APR) for the FY21, and the revised ARR, as per the Audited Accounts and MYT norms for FY21.

The Commission, in its Tariff Order dated 30<sup>th</sup> May, 2019 had approved the Annual Revenue Requirement (ARR) and had determined the ARR of Rs.3,645.17 Crores for FY21. Further, the Commission, vide its Order dated 4<sup>th</sup> November, 2020, had approved the revised Annual Revenue Requirement (ARR) of Rs.4292.87 Crores for FY21 by considering the carried forward revenue deficit of Rs.436.71 Crores as per APR for FY19, amortized regulatory asset (for five months i.e., from November, 2020 to March, 2021) of Rs.138.09 Crores and revenue deficit of Rs.72.90 Crores for FY06-07 as per truing up of ARR for FY06-07, as per KERC Order No.N/33/2020 dated 19.10.2020 issued in implementing the order of Hon'ble ATE Order dated 05.10.2020 in Appeal No.97/2020.

In this Chapter, the Commission has reviewed the Annual Performance of KPTCL for FY21, in accordance with the provisions of the MYT Regulations, on the basis of the application filed by the KPTCL, Audited Accounts for FY21 and KPTCL's replies to the Commission's preliminary observations. The item-wise analysis of expenditure and revenue and the decisions of the Commission thereon, are as following paras:

#### 4.1 KPTCL's Submission:

The KPTCL has submitted the details of revenue earned and item-wise expenditure incurred for consideration during APR for FY21 as follows:

**TABLE – 4.1**  
**KPTCL's filing – APR FY21**

Amount in Rs. Crores			
Sl. No.	Particulars	As approved (Tariff Order dated 30 <sup>th</sup> May, 2019 & Tariff Order dtd.4.11.2020)	As filed
1	Energy available for transmission in MU	74340.70	71271.69
2	Energy sold at IF Points in MU	71984.1	69105.43
3	Transmission Losses in MU	2356.60	2166.26
4	Transmission Loss in %	3.039%	3.039%
5	Installed Capacity in MW	23063	24438
<b>6</b>	<b>Revenue from Transmission of power</b>	<b>4292.87</b>	<b>3898.52</b>
7	Expenditure :		
i	Employee Cost		1218.41
ii	Repairs & Maintenance		327.86
iii	Admin, & General Expenses		133.58
	<b>Total O&amp;M Expenses</b>	<b>1,661.30</b>	<b>1679.85</b>
8	Depreciation	839.59	960.59
9	Interest & Finance Charges	541.51	544.54
10	Interest on working capital	97.56	51.17
11	Return on Equity	843.36	758.50
12	Income Tax	0.00	285.48
13	Other Debits	0.00	34.58
14	Extraordinary items	0.00	0.00
15	Less:		
16	Interest & Finance Charges capitalized	-77.41	-97.25
17	Other Expenses capitalized	-46.42	-63.80
18	Other Income	-214.33	-75.95
19	Net Prior Period Income /Charges	0.00	0.00
<b>20</b>	<b>ARR</b>	<b>3,645.17</b>	<b>4077.71</b>
21	Add Deficit as per approved ARR for FY19 after APR for FY19	436.71	0.00
22	Amortized Regulatory Asset (for five months)	138.09	0.00
23	Revenue Deficit for FY06-07 found out during truing up	72.90	0.00
24	Revenue approved by KERC but not demanded from 01.04.2020 to 31.10.2020.	-	377.82
<b>25</b>	<b>Total ARR for FY21</b>	<b>4292.87</b>	<b>4455.53</b>
26	Deficit for FY21	0.00	557.01

As per the Tariff application, KPTCL has submitted that it has earned a Revenue of Rs.3898.52 Crores from Transmission of power as against a net ARR of Rs.4455.53 Crores for FY21. KPTCL has reported a total deficit of Rs.557.01 Crores in Revenue

for the FY21 which includes revenue gap of Rs.377.82 Crores which was not demanded as per Tariff Order dated 04.11.2020 for the period 01.04.2020 to 31.10.2020. As regards the revenue gap of Rs.377.82 Crores for the period 01.04.2020 to 31.10.2020, KPTCL has informed that the ARR for FY21 allowed by the Commission vide its Tariff Order dated 04.11.2020 was given to effect from 01.11.2020. Hence, the effect of revised Transmission charges from 01.04.2020 to 31.10.2020 amounting to Rs.377.82 Crore could not be demanded from ESCOMs. Accordingly, KPTCL has requested the Commission to include the uncovered amount of Rs.377.82 Crore in the APR of FY21 and carry forward the net deficit of APR for FY21 of Rs.577.01 Crores to the ARR for FY23 and to allow to recovery of the same from ESCOMs.

The Commission has noted that, as per Format-A1 and the audited accounts, KPTCL had earned a surplus of Rs.579.31 Crores without considering the uncovered transmission charges of Rs.377.82 Crores for FY21.

#### 4.2 Financial Performance of KPTCL as per Audited Accounts for FY21:

The overview of the financial performance of KPTCL for the FY21, as per its Audited Accounts, is as follows:

**TABLE – 4.2**

**Financial Performance of the KPTCL – FY21**

Amount in Rs. Crores

Sl. No	Particulars	FY21
	Revenue	3898.52
	Expenditure	
1	O&M Expenses	1679.98
2	Depreciation	1054.86
3	Interest & Finance Charges	595.71
4	Income Tax	247.71
5	Other Expenses	34.73
6	Extraordinary items	0.00
7	Net Prior Period Charges	0.00
	Less:	
8	Interest and Finance charges capitalized	-97.25
9	Other expenses capitalized	-64.28
10	Other income	-169.57
	<b>Total Expenditure</b>	<b>3281.91</b>
	<b>Profit for the Year</b>	<b>661.61</b>

As per the Audited Accounts, the KPTCL has earned a profit of Rs.616.61 Crores in FY21. Considering the surplus earned by the Company in the previous years, the cumulative surplus as per the audited accounts, at the end of FY21 is Rs.3289.48 Crores, which is inclusive of profit earned during FY21.

#### **4.3 Annual Performance Review for FY21:**

The Commission has considered the actual revenue and expenses reported by KPTCL as per the Audited Accounts, as against the expenses approved by the Commission, in its Tariff Orders dated 4<sup>th</sup> November 2020 and the revised ARR as per Tariff Order 04.11.2020, for the purpose of Annual Performance Review for the FY21.

The Annual Performance Review (APR) of the KPTCL for the FY21, has been taken up by the Commission, in accordance with the provisions of the KEREC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006, as amended from time to time. The analysis of item-wise expenditure and the decisions of the Commission thereon, are discussed in the following paragraphs:

##### **i) Transmission Losses for FY21:**

The Commission in its Tariff Order 2020, had fixed the revised transmission loss target at 3.039% with upper and lower range of 3.089% and 2.989% respectively for the FY21 on the basis of the methodology suggested by the KPTCL, wherein the total energy at interface points of the ESCOMs is deducted from the energy input from generation bus to the KPTCL grid, to arrive at the transmission loss in KPTCL system.

The KPTCL, in its filings, has reported transmission loss of 3.039%, as against the Commission approved annual average transmission loss of 3.039% for FY21.

##### **Preliminary Commission's observations and KPTCL reply:**

Commission's Observations:

The Commission had made the following observations:

1. KPTCL has submitted the actual voltage-wise losses, for FY19 to FY21 as detailed below:

Voltage (in kV)	Losses(in %)		
	FY 19	FY20	FY21
400kV	0.325	<b>0.288</b>	<b>0.292</b>
220kV	1.506	1.507	1.440
110kV	0.381	0.393	0.339
66kV	<b>0.949</b>	<b>0.941</b>	<b>0.968</b>

It is seen from the above Table that during FY21, there is an increase in loss levels in respect of 400kV and 66kV transmission system.

Hence, Commission directed the KPTCL to furnish the reason for increase in the transmission losses under 66kV voltage class for FY21 over FY20 and FY19. The Commission also directed the KPTCL to furnish the reason for increase in the transmission losses under 400kV and 66kV voltage class for FY21 over FY20.

#### **Reply by KPTCL:**

The KPTCL, in its reply to the preliminary observations, has submitted that Transmission losses of any transmission network are dynamic in nature. Transmission loss variations depend on the quantum of energy flow and the direction in which the flow takes place. It is for this reason the Commission has indicated the range of losses within which the transmission network has to operate. The transmission losses for the entire network of KPTCL is well within the range prescribed by the Commission for FY21 and the losses are in reducing trend from FY19 onwards as under:

FY 19 – 3.161%

FY 20 – 3.129%

FY 21 – 3.039%

In the current financial year upto August 2021, the actual Transmission loss of KPTCL is 2.975%.

The Commission, has noted the reply of the KPTCL. KPTCL was earlier directed to make a detailed study in the matter of higher transmission losses at 220 kV level and submit a report to the Commission. Since the same is not compiled

with the Commission directs KPTCL the above report within three months from the date of this Order,

- In the tariff application filed by the KPTCL, the energy handled in the KPTCL's Transmission network has been clubbed into one figure as 71271.690 MU and the energy transmitted at IF points with ESCOMs is indicated as 69105.430 MU which includes EHT, IPP and ESCOM energy consumptions as under:

Energy Consumptions(in MU)		
EHT	IPP	ESCOMs IF points
5517.762	1807.439	61780.229
Total:		69105.43

The ESCOMs, in their tariff applications have filed the energy received at IF points after deducting the transmission losses as 62331.04 MU as detailed below:

Energy Consumption by ESCOMs at IF Point for FY21 (in MU)(excluding energy from HERCS and AEQUS)					
BESCOM	MESCOM	CESC	HESCOM	GESCOM	Total
28586.62	5611.33	7223.77	12650.23	7931.86	62003.81

As per KPTCL filing the ESCOM's energy at Interface point is 61780.229 MUs, including energy drawn by ESCOM at 11kV and 33kV IF points, which also includes wheeled energy, auxiliary energy and energy drawn under STOA.

KPTCL was directed to submit details segregating the energy requirement data.

#### **Reply by KPTCL:**

KPTCL, in its reply has submitted the details of actual energy drawn by ESCOMs at interface point for FY21 which includes wheeled energy, auxiliary energy and energy drawn by Railway and under STOA as detailed below:

Sl. No	FY21	Energy in MU
1	Energy drawn by ESCOM at 11KV IF Points	55892.235
	Energy drawn by ESCOM at 33KV IF Points	7686.639
	Energy drawn by ESCOM from EHTs/IPP Import Energy 66KV and above/PPA	5536.866
	<b>Total Energy drawn by ESCOMs at IF Points</b>	<b>69115.738</b>
2	Wheeled Energy	5773.176
3	Auxiliary Energy	40.362
4	Railways Energy	215.746
5	Energy drawn under STOA	785.059
	<b>Total</b>	<b>6814.342</b>

KPTCL has further submitted that, after reconciliation with the ESCOMs, the overall requirement of Energy at IF points has increased to 69115.738 instead of 69105.430 MU and has indicated the revised transmission loss at 3.025%, for FY21.

#### **Commission Analysis & decision:**

After considering the replies furnished by KPTCL, the Commission has considered the actual transmission loss of 3.025% as reported by the KPTCL, based on the input energy and energy supplied exclusively at the interface points of the KPTCL transmission system. The Commission therefore, decides to approve the KPTCL's transmission loss of 3.025% for FY21. Since, the actual transmission loss of 3.025% as reported by KPTCL for FY21 is well within the approved upper and lower range of 3.089% and 2.989% respectively. KPTCL is not entitled for any incentive/penalty for achieving the transmission losses for FY 21.

**Hence, the Commission decides not to allow any incentive or levy penalty, as the actual transmission loss of 3.025% is within the approved lower and upper limits of losses.**

#### **ii) Transmission System Availability (TSA):**

The Commission in its Order dated 4<sup>th</sup> November, 2020, had directed the KPTCL to:

- a) Take necessary action to maintain the elements of transmission system in a healthy condition by carrying out maintenance work as per schedule and conduct Condition Monitoring of substation equipment and Residual Life Assessment (RLA) tests for the old equipment to ensure proper reliability in



supply. Further, KPTCL should expedite the ongoing project execution work to reduce system constraints, for evacuation of RE generation and to avoid time and cost overrun.

- b) Submit the monthly report of transmission system availability duly certified by SLDC regularly to the Commission.

KPTCL in its Petition, has submitted that in order to maintain the elements of the transmission system in healthy condition the respective TL&SS divisions of KPTCL are taking periodical maintenance activities of all the sub-stations and lines coming under their jurisdiction. Further, KPTCL has submitted the Transmission System Availability for FY21 certified by SLDC to the Commission, vide their letter dated 18.11.2021. Further, the details of transmission system availability upto the month of September 2021 has been submitted to KERC on a monthly basis. The Transmission System Availability (TSA) of the transmission lines, transformers and reactors in the KPTCL system, for the FY21, are as follows:

**TABLE – 4.3**

**Transmission System Availability – FY21**

Name of the Transmission Zone	Total no. of AC Tr. Lines	% Availability	Total No of ICT's	% Availability	Total No of switched BUS Reactors	% Availability	% Availability for the system
Bagalkote Zone	461	99.196	602	99.763	1	100	99.5175
Bengaluru Zone	450	99.942	689	99.936	6	61.82	99.7385
Kalaburagi Zone	319	99.941	418	99.921	0	0	99.9298
Hassan Zone	240	98.37	346	99.509	3	100	99.0477
Mysuru Zone	215	99.916	324	99.971	0	0	99.9491
Tumakuru Zone	141	99.11	411	99.827	6	86.585	99.5036
<b>Total</b>	<b>1826</b>	<b>99.335</b>	<b>2790</b>	<b>99.845</b>	<b>16</b>	<b>79.921</b>	<b>99.5747</b>

**Commission's Analysis:**

During the preliminary observation, the Commission has observed that while computing the Transmission System Availability (TSA) of transmission lines and ICTs, KPTCL had not considered all the values with regards to availability and weightage factor. Hence, KPTCL was directed to re-examine the computations and resubmit it to the Commission. Accordingly, KPTCL in its reply to the preliminary observations, has re-examined and revised the TSA from 99.57% to 99.53% for FY21.

**TABLE – 4.4**  
**Modified Transmission System Availability**  
**as submitted by KPTCL – FY21**

Name of the Transmission Zone	Total no. of AC Tr. Lines	% Availability	Total No of ICT's	% Availability	Total No of switched BUS Reactors	% Availability	% Availability for the system
Bagalkote Zone	461	99.196	602	99.763	1	100.000	99.5175
Bengaluru Zone	450	99.942	689	99.936	6	61.820	99.7385
Kalaburagi Zone	318	99.603	418	99.921	0	0.000	99.7836
Hassan Zone	243	98.387	360	99.521	3	100.000	99.0683
Mysuru Zone	215	99.916	324	99.971	0	0.000	99.9491
Tumakuru Zone	141	99.110	411	99.827	6	86.585	99.5036
<b>Total</b>	<b>1828</b>	<b>99.231</b>	<b>2804</b>	<b>99.845</b>	<b>16</b>	<b>79.921</b>	<b>99.5347</b>

The Commission also directed KPTCL to submit the details of all the forced outages in respect of RE generators for want of transmission network and submit necessary action plan to address the outages. KPTCL, in its reply to the preliminary observation, has submitted that the SLDC issues back down instructions to RE generators as part of grid operations to ensure grid security and maintain the frequency in the permissible limits in terms of IEGC/ KEGC. Thus, other than the above events and outages during scheduled maintenance, no forced outages are imposed on RE generators.

During the 64<sup>th</sup> Advisory Committee Meeting held on 25<sup>th</sup> June, 2021, the KPTCL submitted the technical performance of KPTCL for FY21 with regards to increase in transmission system network availability, decrease in losses, etc. KPTCL informed that seven projects are proposed under Green Energy Corridor Phase-I at an estimated cost of Rs.906 Crores for reducing system interruptions for evacuation of RE Generation in the State. Five projects are completed and balance two projects are targeted for completion by December 2021. These projects would help in evacuation of existing 2500 MW RE capacity and reduces interruptions. KPTCL also informed that under Green Energy Corridor Phase-II, thirteen projects are proposed at an estimated cost of Rs.2700 Crores. These projects would help in evacuation of 4500 MW from existing RE capacity and would reduce interruption.

KPTCL stated that transmission system strengthening works are taken up every year and included in the Annual Program of Works. Further, to reduce constraints in RE evacuation in 220KV B. Bagewadi Receiving Station (R/s) GM Navara & Vijayapura R/s Lingasuguru Line-1, KPTCL has submitted that it has approved 400/200kV R/s with installed capacity 2\*500 MVA at Yelwar Vijayapura taluk. KPTCL submitted that as part of network strengthening, it has commissioned 400kV Devanahalli Hardware Park GIS station and 400kV Mylasandra GIS station to meet the demand of industrial layouts.

During 65<sup>th</sup> Advisory Committee Meeting held on 27.10.2021, KPTCL has submitted the details of overloaded Transmission lines and Inter-connecting Transformers along with status of the remedial measures taken up by it. The Commission directed KPTCL to review the projects regularly in order to ensure that the projects are completed within the time frame. KPTCL has submitted the details of action taken in this regard and also has informed the Commission that works are delayed due to litigations cropping up during the implementation of the project. The Commission advised that the pendency of works need to be individually monitored at the Managing Director's Level and to resolve the issues by taking up the matter at appropriate levels, in order to avoid time and cost over-run. KPTCL submitted that it will come up with tentative dates for completion of the projects undertaken to mitigate the overloading in transmission lines and ICTs.

The Commission noted that KPTCL has initiated necessary remedial action to improve availability of the system, and has confirmed that the transmission availability remains at 99.53%.

The Commission, vide letter dated 26.11.2021 had requested the ESCOMs to furnish their views on the transmission availability as submitted by KPTCL. In response of the said letter BESCO, MESCOM, CESC, HESCO and GESCOM have confirmed the transmission system availability as claimed by KPTCL, for their respective zones.

The Commission, after duly validating the submissions made by the KPTCL, has considered the TSA at 99.53%. The Commission directs KPTCL to consistently improve and maintain its TSA, by monitoring and taking remedial measures in respect of the transmission elements which are prone to show lower availability. KPTCL shall also ensure that no RE Generation is affected by transmission system constraints.

### iii) Incentive for Transmission System Availability:

As per the provisions of Regulation 3.17(1) of the KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006, the Transmission Licensee is allowed an incentive for achieving system availability above the target availability of 98%. Hence, considering the availability and the net ARR for FY21 as approved by the Commission in this order, the allowable incentive for the FY21 is calculated as follows:

**TABLE – 4.5**

#### **Incentive for better Transmission System Availability**

<b>Incentive for better Transmission System Availability</b>	
<b>Particulars</b>	<b>FY21</b>
System Target Availability	98%
Actual System Availability for FY21	99.53%
No incentive allowed beyond 99.75% as per MYT Regulations	99.75%
Availability beyond target levels	1.53%
Incentives for Availability beyond target levels linked to approved ARR in Rs. Crs	61.83
<b>50% to be shared with the ESCOMs and balance to be retained by KPTCL Rs. Crs</b>	<b>30.91</b>

The total incentive earned by the KPTCL on account of improved system availability for the FY21 is Rs.61.83 Crores. The Commission hereby approves sharing of the gains with ESCOMs in the ratio of 50:50. Thus, the incentive on account of system availability achieved by KPTCL beyond the target set by the Commission for FY21 is Rs.30.91 Crores.

**The Commission, therefore, directs KPTCL to recover the above incentive amount of Rs.30.91 Crores from the ESCOMs, in proportion to their actual transmission capacity for the FY21 and utilize the same to adopt technological advancements in tools & machinery and to initiate advanced training to its officers and employees, to improve their efficiency in performance and report compliance thereof to the Commission.**

#### **iv) Operation and Maintenance Expenses:**

##### **KPTCL's Submission:**

KPTCL in its application, has claimed the actual O&M expenses as per audited accounts of Rs.1679.85 Crores (excluding SLDC Charges & Other expenses shared by the ESCOMs) as against Rs.1,661.30 Crores approved by the Commission for FY21. This includes Employee costs of Rs.1218.41 Crores, Administration and General Expenses of Rs.133.58 Crores and Repairs & Maintenance expenses of Rs.327.86 Crores.

The Commission, in its Tariff Orders dated 30<sup>th</sup> May, 2019, had approved O&M Expenses of Rs.1,661.30 Crores, inclusive of contributions of terminal benefits to P&G Trust and the leave contribution for FY21. Thus, the actual O&M Expenses reported by KPTCL is higher than the approved expenses by Rs.18.55 Crores.

KPTCL in its application, has submitted that as per provisional Annual Accounts, it has incurred Rs.1164.32 Crore towards employee costs after deducting the expenses shared by ESCOMs, employee cost capitalized and KPTCL portion of P&G Trust for FY21. The employee cost includes the contribution to P&G Trust of Rs.341.90 Crores and Rs.55.12 Crores towards earned leave encashment. KPTCL has submitted that the net R&M expenses incurred for the year is Rs.327.84 Crore.

KPTCL has submitted that there has been an increase to an extent of Rs.22.96 Crore in R&M expenses over the previous year due to increase in cost of repairs in respect of plant and machinery, maintenance of Lines, cables and buildings in the KPTCL network. R&M expenses claimed in APR is Rs.327.84 Crore after deducting the capitalized R & M expenses of Rs 0.02 Crore.

Further, KPTCL has claimed Rs.123.88 Crore as per Provisional Annual Accounts towards net A&G expenses for FY21 which excludes Rs.9.70 Crore towards capitalized costs.

KPTCL has computed the O&M Expenses at Rs.1672.95 Crores as per the norms as specified by the Commission towards maintenance of lines and Bays for FY21. Thus, the total allowable O&M Expenses works out to be Rs.1974.87 Crores by considering the uncontrollable O&M expenses of Rs.301.92 Crores. However, the actual O & M Expenses as per Provisional Accounts works out to Rs.1679.85 Crores (1218.41 + 327.86 + 133.58) for FY21. KPTCL in its filing has requested the Commission to allow O&M expenses of Rs.1679.85 Crores as per actual as per provisional annual accounts for FY21.

#### **Commission's Analysis and decisions:**

The Commission notes that, KPTCL has submitted the latest audited accounts for FY21 on 2<sup>nd</sup> February, 2022.

In accordance with Clause 2.5.1 of the MYT Regulations, the values of the base year of the Control period are being determined on the basis of the latest audited accounts, best estimates for the relevant years and other factors considered appropriate by the Commission, after applying the tests for determining the controllable and uncontrollable nature of various items.

As per the MYT Regulations, the O&M expenses of the transmission licensee are treated as controllable expenses. The major components of the O&M expenses are Employees Cost, Administration and General Expenses and Repairs and Maintenance expenses. The audited accounts for FY21 indicate the actual expenses incurred under these heads of expenditure. These expenses, incurred by KPTCL also includes the contributions of terminal benefits to the Pension and

Gratuity Trust towards regular employees and the employees covered under NDCPS and making the provision for Earned Leave encashment. The Commission considers the contribution made to P&G Trust, expenses on the Earned Leave encashment as uncontrollable expenses.

The normative O & M expenses are being determined, considering the actual O & M expenses incurred by the KPTCL during the base year in 2019 and the O & M expenses approved by the Commission for FY20, the actual number of bays and length of transmission lines in circuit kilometers and the actual inflation factor for the year. The Commission has been consistently adopting this approach to compute the O & M expenses, as provided for in the MYT Regulations, besides allowing additional employee cost treated as uncontrollable O & M cost, as per the provisions of MYT Regulations.

The Commission in its Tariff Order dated 30<sup>th</sup> May, 2019, while approving the O&M expenses for FY21 had considered 24,698 No. of Bays and 39,145 Ckt. Kms of transmission Lines. The actual number of Terminal Bays and the length of Ckt. Kms. of transmission lines erected by the KPTCL for FY21, are shown below:

**TABLE - 4.6**  
**Length of Transmission Lines and No. Bays**

<b>Transmission Lines-Voltage class:</b>	<b>Transmission lines (in Circuit kms) as on 31.03.2021)</b>
400 KV	3701
220 KV	12188
110 KV	11176
66 KV	11776
<b>TOTAL</b>	<b>38841</b>
Type of Bay	
Line Bay	5836
Transformer bay	2805
PT Bay	1758
Capacitor Bank Bay	1154
11 KV Bay	13440
<b>Total</b>	<b>24993</b>

From the above details, the Commission notes that, KPTCL has over-achieved its target of installations of terminal bays and under achieved the length of Ckt Kms. of transmission lines for FY21.

In line with the earlier Tariff Orders, the Commission decides to continue the computation of composite inflation index based on 80% weightage to CPI and 20% weightage to WPI. Based on this composite inflation index, the Commission has computed the inflation factor, based on similar methodology adopted by the CERC, in its orders on escalation rates, issued from time to time, shown follows:

**TABLE - 4.7**  
**Computation of Inflation Rate**

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2009	81.9	54.5	59.98				
2010	89.7	61.1	66.82	1.11	0.11	1	0.11
2011	98.2	66.5	72.84	1.21	0.19	2	0.39
2012	105.7	72.7	79.30	1.32	0.28	3	0.84
2013	111.1	80.6	86.70	1.45	0.37	4	1.47
2014	114.8	85.7	91.52	1.53	0.42	5	2.11
2015	110.3	90.8	94.70	1.58	0.46	6	2.74
2016	110.3	95.3	98.30	1.64	0.49	7	3.46
2017	114.1	97.6	100.90	1.68	0.52	8	4.16
2018	118.9	102.4	105.70	1.76	0.57	9	5.10
2019	121.2	110.2	112.40	1.87	0.63	10	6.28
2020	121.8	116.3	117.40	1.96	0.67	11	7.39
A= Sum of the product column							34.05
B= 6 Times of A							204.28
C= (n-1)*n*(2n-1) where n= No of years of data=12							3036.00
D=B/C							0.07
g(Exponential factor)= Exponential (D)-1							0.0696
<b>e=Annual Escalation Rate (%)=g*100</b>							<b>6.9602</b>
As per CERC Notification No. Eco T I / 2021-CERC dated 23.04.2021 with weightage of 80% on CPI and 20% on WPI							

Considering the inflation rate of 6.9602%, the normative O&M expenses for the FY21 will be as follows:

**TABLE – 4.8**  
**Approved Normative O & M Expenses for FY21**

Particulars	Amount in Rs. Crores	
		Amount
O&M cost in terms Rs. Thousand/bay		398.97
O&M cost in terms Rs. Thousand/Km of Line		106.47
Inflation rate*		6.9602
No. of Bays		24993
Length of Line in Kms		38841
O&M Expenses for Bays Rs. Crores		997.15
O&M Expenses for Lines Rs. Crores		413.54
<b>TOTAL O&amp;M Expenses as per Norms Rs. Crores</b>		<b>1410.70</b>



As stated in pre-para, as per the audited accounts for the FY21, the KPTCL has incurred Rs.397.01 Crores towards additional O&M Expenses on account of Contribution of terminal benefits to P&G Trust of Rs.341.90 Crores and Earned Leave Encashment of Rs.55.12 Crores for FY21. The Commission decides to allow the same as additional employee cost for FY21.

Based on the above discussions, the allowable O & M expenses for the FY21 are as follows:

**TABLE – 4.9**  
**Allowable O & M expenses for FY21**

Particulars	Amount in Rs. Crores	
	FY21	
O&M Expense as per Norms Rs Crores	1410.70	
Additional O&M Expenses on account of P&G Contribution and Earned Leave Encashment for FY21	397.01	
Total Allowable O&M Expenses	1807.71	
Claimed by KPTCL as per audited accounts	1679.85	
<b>Actuals as per provisional audited account</b>	<b>1679.98</b>	
<b>Allowable O&amp;M expenses limited to actual as claimed by KPTCL</b>	<b>1679.98</b>	

The Commission notes that, the allowable O&M expenses of Rs.1807.71 Crores is higher than the actual O&M expenses of Rs.1679.98 Crores by Rs.127.73 Crores for FY21. The Commission notes the claims made by the KPTCL is restricting its claims to the extent of actual amount of O&M expenses incurred as per audited accounts. As the O&M expenses are controllable expenses as per the provisions of MYT Regulation, the Commission by considering the claim of KPTCL and to minimize the burden on the consumers particularly during the economic slowdown period on account of Pandemic COVID-19 decides to allow the actual O&M expenses of Rs.1679.98 Crores incurred by KPTCL as per the audited accounts for FY21.

**Thus, the Commission decides to approve the total O & M expenses of Rs.1679.98 Crores for FY21.**

**v) Depreciation:**

KPTCL, in its application, has claimed an amount of Rs.960.59 Crores towards depreciation as against an amount of Rs.839.59 Crores approved in the Tariff

Order dated 30<sup>th</sup> May, 2019. As per the audited accounts and submission made KPTCL claimed an amount of Rs.1054.37 Crores for FY21, which includes Rs.93.78 Crores towards depreciation on assets created out of consumers' contribution/grants and Rs.0.48 Crores being the depreciation capitalized amount.

### Commission's Analysis & Decision:

The Commission, as per the provisions of the KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006, has determined the allowable depreciation duly considering the actual average gross block of fixed assets for FY21.

It is noted that as per the audited accounts for FY21, the depreciation before capitalization is Rs.1054.86 Crores. The capitalized amount of is Rs.0.48 Crores. The amount of depreciation withdrawn on assets created out of consumer contribution and grants as accounted under other income head of account is Rs.93.15 Crores. Thus, after excluding the withdrawal of depreciation of Rs.93.15 Crores, towards assets created out of consumer contribution and grants, Rs.0.48 Crores towards capitalised depreciation and Rs.0.22 Crores towards depreciation on SLDC assets, the net depreciation for FY21 works out to Rs.961.01 Crores. The asset-wise break-up of depreciation is shown as under:

**TABLE - 4.10**  
**Allowable Depreciation for FY21**

Particulars of assets	Net Depreciation for the Year FY21
Land and Rights	
Amortisation of Lease hold assets	0.628
Building and structures	24.608
<b>Plant and Machinery</b> Substation Transformers, Circuit breakers, other fixed apparatus of rating 100 MVA and above.	503.142
Substation Transformers, Circuit breakers, other fixed apparatus of rating below 100 MVA .	503.652
Hydraulic Works	6.432
Other Civil Works	9.919
Vehicles	2.277
Furniture Fixtures	1.473
Office Equipment	0.216
Intangible Assets	0.249

Depreciation on released assets and released assets issued to repairs.	2.262
Gross Depreciation (Before Capitalisation)	<b>1054.86</b>
<b>Less: Depreciation withdrawn on assets created out of consumer contribution and grants</b>	(-)93.15
<b>Grand Total</b>	961.71
Less: Depreciation on SLDC assets	(-)0.220
Less: Capitalised Amount of Depreciation	(-)0.483
<b>Allowable Net Depreciation</b>	<b>961.007</b>

Thus, the Commission decides to allow the net depreciation of Rs.961.01 Crores for the FY21.

#### vi) Capital Expenditure

##### a. Capital Expenditure for FY21:

###### KPTCL's submission:

KPTCL in its Tariff application has indicated that it has incurred capex of Rs.2,211.32 Crores for FY21, as against the Commission approved capex of Rs.2,000.00 Crores for FY21, duly indicating the achievements made in FY21 as follows:

**TABLE – 4.11**  
**Details of physical achievements in Capital works for FY21**

Particulars	Stations Commissioned (in No's)	Capacity Added in MVA	Line Commission in Ckt. Kms	Augmentation Works (in No's)
400 kV	2	2500	2.62	-
220 kV	6	1200	579.17	05
110 kV	12	290	260.96	38
66 kV	16	237	345.67	76
<b>Total</b>	<b>36</b>	<b>4227</b>	<b>1188.42</b>	<b>119</b>

The KPTCL, in reply to the preliminary observations, has furnished the breakup of capital expenditure in respect of following works achieved during FY21:

**TABLE – 4.12**  
**Break up of Financial Outlay on Capital expenditure for FY21**  
**(Amount in Rs. Crores)**

Particulars	Actual capital expenditure
Station works	815.15
Line Works	955.42
Augmentation Works – Stations & Lines	335.03
Other works	105.72
<b>Total</b>	<b>2,211.32</b>

**Commission's Analysis and Decisions:**

The Commission, in its MYT Order 2019, had recognized Rs.2,000.00 Crores towards capex for FY21 and had considered Rs.1,500.00 Crores for determination of ARR and for computation of transmission tariff for FY21, subject to prudence check and had directed KPTCL that, if it requires any additional capex, the same may be incurred through re- appropriation of the amounts saved in other heads of expenditure, with proper justification.

KPTCL in its filing of APR for FY21, has submitted that it has incurred a capex of Rs.2,211.32 Crores. The Commission, in its preliminary observations on Tariff filing had directed KPTCL to furnish the reasons for exceeding the Capex of Rs.2,000.00 Crores for FY21, without Commission's approval.

In reply, KPTCL has submitted that the actual Capex incurred of Rs.2,211.32 Crores includes an amount of Rs.97.25 Crores towards capitalization of interest charges and Rs.64.28 Crores towards capitalization of other expenses and it also includes expenditure towards spill over works of previous years, amounting to Rs.153.87 Crores. Hence, the capital expenditure incurred for the year FY21 is less than Rs.2,000.00 Crores. Further, KPTCL has submitted that it has adopted Debt-Equity ratio of 70:30 for sources of funding as per the norms prescribed by the KERC in its MYT regulations. KPTCL has further submitted that the actual capital expenditure of Rs.2211.32 Crores incurred during FY21 includes expenditure against 125 nos. of completed works pertaining to construction of New Stations with associated lines, exclusive transmission lines and augmentation works.

The Commission notes that KPTCL has not furnished the breakup of works of stations and lines completed during FY21. The details of no. of works furnished does not match with the details furnished in the filing. This indicates that KPTCL is not properly monitoring the major capital works despite directions by the Commission. Hence, KPTCL is once again directed to submit the breakup of completed works duly segregating them into station, lines and augmentation works against the no. of completed works as per the filing to avoid inconsistencies in the data.

The Commission had also directed KPTCL to furnish the details of loading of station / line with reference to the projected loads as per the DPR. However, KPTCL has furnished the loading details of the completed stations and lines during FY21 without any analysis as to remedies considered for number of substations in which simultaneous peak load cannot be met and number of stations having under voltage problems. It is stated that the details are being collected and would be submitted in due course. The Commission notes that in the absence of such details in the corporate office, how the monitoring of effectiveness/ prudence of the capex incurred is being done by KPTCL, needs to be explained. In view of this KPTCL is directed to submit the required details within 2 months from the date of this order.

**Considering the replies furnished and subject to the directions issued in the matter of incurring the capex, the Commission recognizes the capex of Rs.2211.32 Crores for the purpose of APR for FY21, subject to undertaking prudence check by the Commission during FY2022-23.**

**b. Review of Dis-allowance towards imprudent works / conditionally prudent works pertaining to FY20 as per Tariff Order dated 09<sup>th</sup> June 2021.**

The Commission, in its letter dated 28.06.2021, had directed KPTCL to furnish comments / opinions on the findings of the final report submitted by M/s TERI, Bengaluru in respect of Prudence check of Capital Expenditure pertaining to completed / capitalized works categorized for FY19 and FY20 and also to submit its comments on the imprudent works indicated in the report. Accordingly, KPTCL, vide its letter dated 31<sup>st</sup> July 2021, had submitted its comments and compliances on the observations made in the final report along with current status of imprudent works.

The current status of Imprudent/ conditionally prudent works as furnished by KPTCL/BESCOM/HESCOM and Commission decisions thereon is as under:

Sl. No.	Commission's Observations	Status as furnished by KPTCL/BESCOM/HESCOM	Commission's Decision
1	Evacuation of new 11Kv feeders from 66/11KV c station to reduce overload of F14 and F9 feeders of LR Bande MUSS in O & M -14 of C5 sub-division, BESCOM for the categorized amounting to Rs. 3.176597 Crores.	11kv Switchgear was commissioned on 20.04.2020 by KPTCL. The BESCOM in its letter dated 09.09.2021 submitted that the said work was taken under self-execution by BESCOM and same has commissioned on 14.12.2021 by clearing faults at multiple locations.	In view of reply furnished by BESCOM, Commission decides the said work is attributable to BESCOM and same will be reviewed in the APR of FY21 of BESCOM.
2	Badanakuppe: Establishing 2x31.5 MVA, 66/11 kV Badanaguppe S/s with associated line.	As per the details furnished by KPTCL vide letter No KPTCL/B36/2021-22/22454/625 dated 31.07.2021., 4.67 MW load has been taken on the subject work in the month of April 2021.	Since the load has been taken on the station in the month of April 2021 and during FY21 also the station was not utilized and remained idle. In view of this, Commission decides to continue the disallowance for FY21 also and same will reviewed during next tariff based on utilization / loading of the station.
3	Establishing 2x8MVA, 66/11 kV S/S at Malladihalli (Hosadurga Taluk) with associated 66 kV line from proposed 220 KV Station, Benkikere. Tumakuru Zone	As per the details furnished by KPTCL vide letter No KPTCL/B36/2021-22/22454/625 dated 31.07.2021., due to incoming load constraints and severe ROW issues Benkikere Station is yet to be commissioned.	In view of the explanation furnished by KPTCL, subject work is not functional. Hence, Commission decides to continue disallowance for FY21 also and same will reviewed during next tariff .
4	Construction of 2x8 MVA, 33/11KV Sub-Station at saptasagar.	HESCOM has submitted that 33/11KV saptasagar Sub-Station load is taken by tapping to the existing 33KV Yelparatti feeder emanating from 110/33/11 KV sub-station Kuduchi. Due to overload at 33 KV reference subject project is yet to achieve full loading. To overcome this 20MVA at 110KV MUSS, Yelparatti has been proposed. Further, HESCOM has stated that full load will be taken after completion of 20MVA work.	In view of the reply furnish by the HESCOM Commission considers the subject project as conditionally prudent. Hence, Commission directs KPTCL to complete the proposed 20 MVA, 33 KV reference Power Transformer work at 110 KV Yelparatti as early as possible and submit the compliance to the Commission to take further action in the subject matter and same will reviewed during next tariff.

Accordingly, the disallowance towards two imprudent capital works of FY20, are ordered to be disallowed in revised ARR for FY21. The disallowances are worked

out by considering the weighted average rates of depreciation at 4.76% and interest on loans at 7.61% as under:

(Amount in Rs. Crores)

<b>1</b>	<b>Name of the imprudent Work : Badanakuppe: Establishing 2x31.5 MVA, 66/11 kV Badanaguppe S/s with associated line.</b>	<b>33.34</b>
a	Target date of completion	10.01.2019
b	Year of completion	27.11.2019
c	Year of categorization	31.03.2020
d	Period for which amount to be disallowed	1 <sup>st</sup> April 2020 to 31 <sup>st</sup> March 2021
<b>e</b>	<b>Amount to be disallowed</b>	<b>3.20</b>
<b>2</b>	<b>Name of the imprudent Work: Establishing 2x8MVA, 66/11 kV S/S at Malladihalli (Hosadurga Taluk) with associated 66 kV line from proposed 220 KV Station, Benkikere. Tumakuru Zone.</b>	<b>6.40</b>
a	Target date of completion	05.02.2014
b	Year of completion	16.09.2019
c	Year of categorization	31.03.2020
d	Period for which amount to be disallowed	1 <sup>st</sup> April 2020 to 31 <sup>st</sup> March 2021
<b>e</b>	<b>Amount to be disallowed</b>	<b>0.62</b>
<b>3</b>	<b>Total amount to be disallowed in ARR-APR for FY21 (1e+2e)</b>	<b>3.82</b>

**As per the above computations, the Commission hereby disallows Rs.3.82 Crore for FY21 towards depreciation and interest on loans towards the imprudent works. Accordingly, the same is ordered to be deducted in KPTCL's revised ARR consequent on APR for FY21.**

#### **vii) Interest and Finance Charges:**

The KPTCL, in its tariff application has claimed an amount of Rs.544.54 Crores towards Interest & Finance charges, as against an amount of Rs.541.51 Crores approved in the Tariff Order dated 30<sup>th</sup> May, 2019 for FY21. KPTCL also submitted that considering interest capitalization amount of Rs.97.25 Crores, the net interest on capital loan considered for computing ARR is Rs.447.29 Crores.

#### **Commission's Analysis & Decision:**

The Commission notes that as per the audited accounts, KPTCL has incurred Rs.498.46 Crores towards the net interest and finance charges for FY21 which includes Rs.51.17 Crores towards Interest on Working Capital and Rs.97.25 Crores towards interest capitalization for FY21. The Commission has considered the opening balance of long term capital loans, new loans availed and repayment of loans made during FY21, as per the details furnished under Format-T9 and the Audited Accounts for FY21. Based on the opening and closing balances of long-term loans, the average capital loan for the year FY21 works out to Rs.7146.77

Crores. The actual amount of interest on capital loans incurred is Rs.544.54 Crores for FY21. The weighted average rate of interest works out to 7.62%. The details of the allowable interest on capital loans are as follows:

**TABLE – 4.13**  
**Allowable Interest and Finance Charges for FY21**

Amount in Rs. Crores	
Particulars	FY21
Opening balance of Secured Loans	6698.99
Opening balance of Unsecured Loans	1.78
Total	6700.77
Add: New Loans	1582.00
Less Repayments	690.01
Total loan at the end of the year	7592.76
Average Loan	7146.77
Interest on long term loans (as filed as per audited accounts)	544.54
Weighted average rate of interest based on the actual interest provided on long term loans in FY21 as per audited accounts in %	7.62%
<b>Allowable interest on long term loans</b>	<b>544.54</b>

Since the actual weighted average rate of interest of 7.62% is comparable with the prevailing interest rates for long term capital loans, the Commission decides to allow the actual interest on long term capital loans and finance charges of Rs.544.54 Crores for FY21. Further, considering the actual capitalization of interest of Rs.97.25 Crores as per the annual audited accounts, the net interest on long term loans works out to Rs.447.29 Crores for FY21.

**Thus, the Commission decides to allow gross interest on capital loans of Rs.544.54 Crores and Rs.97.25 Crores towards capitalization of interest on capital loan for FY21.**

**viii) Interest on Working Capital:**

KPTCL has claimed Rs.51.17 Crores as against Rs.97.56 Crores as approved by the Commission towards Interest on Working Capital for FY21.

**Commission's Analysis & Decision:**

The Commission, in its Tariff Order dated 30<sup>th</sup> May, 2019, had approved an amount of Rs.97.56 Crores towards interest on working capital for FY21 as per the provisions of the MYT Regulations. The Commission notes that as per the audited



accounts, it has incurred Rs.51.17 Crores towards interest on short term / working capital loans for FY21. Though the KPTCL has claimed this amount under interest on long term loans, the same has been excluded from interest on long term loans and allowed under the head- Interest on Working Capital. The Commission notes that in accordance with norms under MYT Regulations, the KPTCL is entitled to interest on working capital for FY21 as follows:

**TABLE – 4.14**  
**Allowable Interest on Working Capital for FY21**

Particulars	Amount in Rs. Crores FY 21
O&M expenses	1679.98
One-twelfth of the amount of O&M Exp.	140.00
Opening GFA as per Audited Accts	22138.53
Stores, materials and supplies 1% of Opening balance of GFA	221.39
One-sixth of the revenue from Transmission user at the prevailing tariffs	649.75
<b>Total Working Capital</b>	<b>1011.14</b>
Allowable Rate of Interest (% p.a.)	9.50%
Interest on Working Capital	96.06
Actual Interest on WC as per provisional audited accounts	51.17
As per regulations actual plus 50% of difference between actual and normative	73.61

**Thus, the Commission decides to allow Rs.73.61 Crores towards interest on working capital for FY21.**

**ix) Other Expenses/ Debits:**

KPTCL in its filing, has claimed an amount of Rs.34.58 Crores towards other debits for FY21.

**Commission's Analysis & Decision:**

The Commission notes that as per the audited accounts for FY21, the KPTCL has claimed an amount of Rs.34.58 Crores towards other debits. This amount among other items includes asset decommissioning cost, provision for bad and doubtful debts, Bank charges, loss relating to fixed assets, small and low value items written off and miscellaneous losses and write off.

As per the provision of MYT Regulations, the Commission is not allowing the provision for bad & Doubtful Debts. Thus, the Commission, by excluding an amount of Rs.11.07 Crores relating to provision for bad and doubtful debts, decides to allow an amount of Rs.23.66 Crores towards other debits for FY21.

#### x) Return on Equity:

The KPTCL in its application, has claimed an amount of Rs.758.50 Crores towards Return on Equity at 15.5% on the Equity and Reserves & Surplus, as against the RoE grossed up with MAT of Rs.843.36 Crores approved by the Commission in its Tariff Order dated 30th May, 2019 for FY21. The details of the KPTCL's submission on RoE are as follows:

**TABLE – 4.15**  
**Return on Equity - KPTCL's Submission**

Calculation of RoE	Amount in Rs. Crores
	FY21
Paid-up share capital and share deposits	2182.32
Share Deposit	0.00
Reserves and Surplus	2794.36
Total Equity	<b>4976.68</b>
<b>RoE @ 15.50%</b>	<b>758.50</b>

#### Commissions Analysis and Decisions:

In accordance with the provisions of the MYT Regulations, the Commission, has considered the opening balance of equity, based on the amount of paid-up share capital, share deposits and accumulated balance of surplus in profit and loss account under 'Reserves and Surplus' as per the audited accounts for FY21.

Further, in compliance of the Orders of the Hon'ble ATE in Appeal No.46/2014, wherein it was directed to indicate the opening and closing balances of gross fixed assets without considering the gross fixed assets created out of consumer contribution / grants along with break-up of equity and loan component in the Tariff Order henceforth, the details of GFA, debt and equity (net-worth) for FY21 are indicated as follows:

**TABLE – 4.16**  
**Status of Debt Equity Ratio for FY21**

Particulars	GFA	Actual Debt	Actual Equity (Net-worth)	Normative Debt @ 70% of GFA	Normative Equity @ 30% of GFA	Amount in Rs. Crores	
						%age of actual debt on GFA	%age of actual equity on GFA
Opening Balance	20828.09	6700.77	4893.32	14579.66	6248.43	32.17	23.49
Closing Balance	22680.34	7592.76	5472.83	15876.24	6804.10	33.48	24.13

From the above table it is seen that the actual debt equity ratio is within the normative debt equity ratio of 70: 30 on the opening and closing balances of GFA for FY21.

The Commission notes that, KPTCL in computation of RoE has considered the opening balances of accumulated surplus as per provisional audited accounts for FY21. The Commission by considering the opening balance of equity and accumulated surplus as per provisional audited accounts has decided to allow RoE at 15.5% of equity, besides allowing the taxes separately. Accordingly, the allowable RoE for FY21 is computed as follows:

**TABLE – 4.17**  
**Allowable RoE for FY21**

Particulars	Amount in Rs. Crores
	FY21
OB: Paid Up Share Capital	2182.32
OB: Share Deposit	0.00
OB: Reserves & Surplus	2672.87
<b>Total Equity</b>	<b>4885.19</b>
Allowable RoE @ 15.5% on equity	<b>752.55</b>

**Thus, the Commission approves an amount of Rs.752.55 Crores as the RoE for FY21.**

**xi) Provision for Taxation:**

**KPTCL Submission:**

KPTCL in its application, as per the provisional accounts by including the Deferred tax liability of Rs.93.51 Crores has claimed an amount of Rs.285.48 Crores towards the Income Tax for FY21 and requested the Commission to allow the same.

**Commissions Analysis and Decisions:**

The Commission notes that as per the audited accounts KPTCL has booked Rs.154.00 Crores as current income taxes and Rs.93.7147 Crores towards deferred tax liability for FY21. The Commission has approved RoE of Rs.752.55 Crores for FY21. For computing the tax liability of KPTCL for FY21, the Commission as per the provision of MYT Regulations has considered the allowable RoE at 15.5% grossed up with 15% MAT, 12% surcharge and 4% cess which works out to Rs.159.32 Crores. As the actual current year income tax as per audited account is Rs.154.00 Crores, the Commission as per the provisions of MYT Regulation decides to allow the actual income tax of Rs.154 Crores for FY21. As the deferred tax liability is only a charge on Profit and Loss account and not actual out go of tax, the Commission decides not to allow the same in approval of APR for FY21.

The Commission as per the provisions of Regulation 3.13.6 as amended by KERC (Terms and Conditions for Determination of Transmission Tariff) (Second Amendment) Regulations, 2015 decides to allow Rs.154.00 Crores, being the allowable income tax for FY21.

**Therefore, the Commission decides allows an amount of Rs.154.00 Crores, towards Income Tax for FY21.**

**xii) Other Expenses Capitalized:**

The KPTCL in its application has claimed Rs.63.80 Crores towards capitalization of employee cost, R&M expenses and A&G expenses for FY21.

**Commissions Analysis and Decisions:**

The Commission notes as per the audited accounts the actual amount of expenses capitalized towards Employees cost, R&M, A&G charges for Rs.63.79 Crores for FY21.

**Thus, the Commission decides to allow Rs.63.79 Crores towards capitalization of other expenses for FY21.**

**xiii) Other Income:**

The KPTCL in its application has claimed an amount of Rs.75.95 Crores towards Other Income for FY21.

**Commissions Analysis and Decisions:**

The Commission notes that, as per audited account, the Other Income is indicated as Rs.169.57 Crores for FY21. This amount also includes the withdrawal of depreciation of Rs.93.15 Crores on assets created out of consumer contribution / grants. This amount has already been factored in, while computing the allowable depreciation for FY21. The balance amount of Rs.76.42 Crores which mainly pertains to rent from staff quarters, rent from others, interest on investments / bank deposits and gain on sale of stores/assets, miscellaneous recoveries, etc. is treated as other income.

**Therefore, the Commission decides to allow an amount of Rs.76.42 Crores as other income for FY21.**

**xiv) SLDC Charges:**

The KPTCL, in its application has indicated the SLDC charges separately for FY21 as detailed below:

**TABLE – 4.18**  
**SLDC Charges for FY21-KPTCL's Submission**  
Amount in Rs. Crores

Sl. No.	Particulars	FY 21
1	Employee cost	0.76
2	A & G Expenses	18.17
3	Repairs & Maintenance Expenses	8.99
4	Depreciation	0.22
	<b>Total</b>	<b>28.14</b>

**Commissions Analysis and Decisions:**

The Commission notes that as per the audited accounts, KPTCL has incurred SLDC charges of Rs.28.14 Crores as against Rs.25.431 Crores approved by the Commission for FY21. Thus, the Commission decides to allow the recovery of the SLDC charges of Rs.28.14 Crores to be shared by the ESCOMs, are as follows:

**TABLE – 4.19**  
**Allowable SLDC Charges for FY21**

Particulars	Amount in Rs. Crores			
	Capacity Allocation in MW for FY21	Approved SLDC Charges for FY21 as per APR	Approved SLDC Charges for FY21	Difference of FY21 to be carried forward to FY23
BESCOM	11556	14.091	11.923	2.17
MESCOM	1785	2.177	1.996	0.18
CESC	2592	3.161	2.815	0.35
HESCOM	4425	5.396	5.032	0.36
GESCOM	2720	3.317	3.665	(-)0.35
<b>TOTAL</b>	<b>23078</b>	<b>28.140</b>	<b>25.431</b>	<b>2.709</b>

Thus, the Commission decides to consider the actual SLDC charges of Rs.28.14 Crores and the difference of Rs.2.71 Crores in SLDC charges allowed to be recovered from the ESCOMs along with the SLDC charges payable by ESCOMs to KPTCL for FY23 as discussed in the subsequent chapter of this Order.

**xv) Revenue:**

KPTCL in its application, has considered an amount of Rs.3898.52 Crores as the Revenue from Transmission Charges and miscellaneous charges as per the audited accounts for FY21. The Commission has considered the same for the purpose of APR for FY21.

**xvi) Treatment of Revenue approved by KERC but not demanded from 01.04.2020 to 31.10.2020:**

KPTCL has claimed an amount of Rs.377.82 Crores as the revenue not demanded from 01.04.2020 to 31.10.2020 for FY21, as the Tariff Order 2020 was issued on 4<sup>th</sup> November 2020 and therefore has requested to consider the same while truing up the ARR for FY21.

The Commission notes that, as per the audited accounts for FY21, even with amount of revenue earned, KPTCL by meeting all the revenue expenditure has earned the net surplus of Rs.616.61 Crores. Thus it is evident that even with the effect of imposition of various restriction and other measure during the lockdown period declared by the Gol / GoK due to COVID-19 Pandemic, KPTCL has run

the transmission business with the net surplus during FY21. Allowing any additional amount of Rs.377.82 Crore in the ARR as per APR for FY21, will result in additional deficit to the approved net revenue gap of Rs.49.55 Crores and ultimately burden the consumers in the retail supply tariff to be determined for FY23, which is unwarranted.

The Commission while carrying out the APR of FY21 has trued up the various expenses and revenue in terms of MYT Regulation considering the audited accounts for FY21. While arriving at the gap for FY21 as per APR, the Commission has considered the actual revenue earned by KPTCL as per the audited accounts and arrived the net gap of Rs.49.55 Crores for FY21 duly allowing the revenue expenditure as per the provisions of MYT Regulation. As such the Commission decides not to factor Rs.377.82 Crores as claimed by KPTCL.

**xvii) Abstract of Approved ARR for FY21 as per APR:**

Based on the above decisions the consolidated Statement of approved ARR as per APR for FY21 is as follows:

**TABLE – 4.20**  
**Abstract of approved ARR for FY21 as per APR**

Sl. No.	Particulars	Amount in Rs. Crores		
		FY21		
		As approved (T.O dated 30.05.2019) & 04.11.2020	As filed (27.11.2020)	As per APR
1	Energy available for transmission in MU	74340.70	71271.69	71271.69
2	Energy sold at IF Points	71984.10	69105.43	69115.74
3	Transmission Losses in MU	2356.60	2166.26	2155.95
4	Transmission Loss in %	3.039%	3.039%	3.025%
5	<b>Installed Capacity in MW</b>	23063	24438	23063
6	<b>Revenue from Transmission of power and Misc. Revenue in Rs.Crores</b>	<b>4292.87</b>	<b>3898.52</b>	<b>3898.52</b>
7	<b>Expenditure in Rs. Crs.</b>			
i	Employee Cost		1218.41	
ii	Repairs & Maintenance		327.86	
iii	Admin & General Expenses		133.58	
	<b>Total O&amp;M Expenses</b>	<b>1661.30</b>	<b>1679.85</b>	<b>1679.98</b>
8	Depreciation	839.59	960.59	961.01

9	Interest & Finance Charges	541.51	544.54	544.54
10	Interest on working capital	97.56	51.17	73.61
11	Return on Equity	843.36	758.50	752.55
12	Income Tax	0.00	285.48	154.00
13	Other Debits	0.00	34.58	23.66
14	Extraordinary items	0.00	0.00	0.00
15	<b>Less:</b> Interest & Finance Charges capitalised	-77.41	-97.25	-97.25
16	<b>Less:</b> Other Expenses capitalised	-46.42	-63.80	-63.79
17	<b>Less:</b> Other Income	-214.33	-75.95	-76.42
18	Net Prior Period Income /Charges	0.00	0.00	0.00
19	Carry forward of Deficit as per APR of FY19	436.71	0.00	0.00
20	Amortised Regulatory Assets (for five months)	138.09	0.00	0.00
21	Revenue approved by KERC but not demanded from 01.04.2020 to 31.10.2020	0.00	377.82	0.00
22	Revenue Deficit for FY2006-07 found out during truing up	72.90	0.00	0.00
23	<b>ARR</b>	<b>4292.87</b>	<b>4455.53</b>	<b>3951.89</b>
24	Less: Disallowance of imprudent capex for FY19 and FY20	0.00	0.00	-3.82
25	<b>Net ARR</b>	<b>4292.87</b>	<b>4455.53</b>	<b>3948.07</b>
26	<b>Deficit for FY21</b>	0.00	<b>-557.01</b>	<b>-49.55</b>
27	Transmission Charges per unit in Paise	57.55	62.51	55.39
28	<b>Transmission Charges in Rs per MW/Month</b>	155114	<b>151933</b>	<b>142655</b>

#### 4.4 Treatment of Gap in Revenue for FY21:

As against the approved ARR of Rs.4292.87 Crores and KPTCL's proposed revised ARR of Rs.4455.53 Crores, as per APR, the Commission, after the Annual Performance Review, decides to allow an ARR of Rs.3948.07 Crores for FY21. **Considering the actual revenue of Rs.3898.52 Crores, there is a deficit in Revenue of Rs.49.55 Crores for FY21.**

**The Commission decides to carry forward an amount of Rs.49.55 Crores being the deficit for FY21, to the ARR for FY23, as discussed in the subsequent Chapter of this Order.**



## CHAPTER – 5

### ANNUAL REVENUE REQUIREMENT FOR FY23-25

#### 5.0 ARR Application for FY23-25:

KPTCL has filed its Tariff application dated 30<sup>th</sup> November, 2021 for the next Control Period FY23-25 and has requested the Commission to approve ARR and transmission Tariff for FY23-25. Further, KPTCL has also requested the Commission to carry forward the deficit of Rs.557.01 Crores for FY21 to the ARR of FY23, while determining the transmission tariff for FY23.

#### 5.1 KPTCL's Submission:

KPTCL has proposed its ARR for FY23-25 as detailed below:

**TABLE – 5.1**  
**Annual Revenue Requirement for FY23-25 – KPTCL's Submission**

Amount in Rs. Crores

Sl. No.	Particulars	FY23	FY24	FY25
		As filed (30.11.2021)	As filed (30.11.2021)	As filed (30.11.2021)
1	Energy available for transmission in MU	71185.49	73479.73	75893.72
2	Energy sold at IF Points in MU	69136.77	71401.72	73785.39
3	Transmission Losses in MU	2049.00	2078.00	2108
4	Transmission Loss in %	2.878%	2.828%	2.778%
5	<b>Installed Capacity in MW</b>	28730	30855	32725
6	<b>Revenue from Transmission of power &amp; Misc. Revenue in Rs. Crores</b>	<b>5223.73</b>	<b>5610.11</b>	<b>5950.11</b>
7	<b>Expenditure in Rs. Crores</b>			
i	Employee Cost	1672.42	1906.55	2173.47
ii	Repairs & Maintenance	448.78	525.07	614.34
iii	Admin & General Expenses	160.98	183.52	209.21
	<b>Total O&amp;M Expenses</b>	<b>2282.18</b>	<b>2615.14</b>	<b>2997.02</b>
8	Depreciation	1299.09	1441.99	1600.61
9	Interest & Finance Charges	679.61	791.02	912.15
10	Interest on working capital	37.80	42.11	41.39

11	Return on Equity with MAT at 21.5488% (19.7575% on allowable equity)	1220.93	1450.24	1722.62
12	Income Tax	0.00	0.00	0.00
13	Other Debits	36.69	37.79	38.92
14	Extraordinary items	0.00	0.00	0.00
15	<b>Less:</b>			
16	Interest & Finance Charges capitalized	-103.17	-106.27	-109.46
17	Other Expenses capitalized	-67.69	-69.72	-71.81
18	Other Income	-80.58	-82.99	-85.48
19	Net Prior Period Income /Charges	0.00	0.00	0.00
	<b>ARR</b>	<b>5304.86</b>	<b>6119.31</b>	<b>7045.96</b>
20	Carry forward of Deficit/Surplus as per APR of FY21 including unrecovered revenue through Tariff as per approved ARR as per T.O 2020 dated 04.11.2020 ( from 4/20 to 10/20) Not kept as Regulatory assets	557.00	0.00	0.00
	<b>Amortised Regulatory Assets as per KERC Order dated 19.10.2020 (in Rs. Cr)</b>	<b>331.41</b>	<b>331.41</b>	<b>331.41</b>
	<b>Total ARR</b>	<b>6193.27</b>	<b>6450.72</b>	<b>7377.37</b>
	<b>Surplus/ Deficit</b>	<b>-969.54</b>	<b>-840.61</b>	<b>-1427.26</b>

Accordingly, the KPTCL has requested the Commission to approve the following transmission charges, for the Control Period FY23-25:

**TABLE – 5.2**

**Transmission Charges FY23-25 – KPTCL's Submission**

Particulars	FY23	FY24	FY25
Transmission Capacity in MW	28730	30855	32725
ARR in Rs. Crores	5304.86	6119.31	7045.96
Gap of FY21 in Rs. Crores	179.18	-	-
ARR Approved, but not recovered through Tariff from 01.04.2020 to 31.10.2020 (C)	377.82	-	-
Add: Amortized Regulatory Assets as per KERC Order Dated:19.10.2020 (D)	331.41	331.41	331.41
Total Revenue Requirement in Rs. Crores.	6193.27	6450.72	7377.37
Transmission Tariff (in Rs./MW/Month)	<b>179640</b>	<b>174221</b>	<b>187863</b>

KPTCL has prayed for:

- i. Approving proposed transmission charges for FY23-25; including the gap in revenue for FY21 as per APR indicated in the ARR of FY23 and enable KPTCL to recover the same from ESCOMs;
- ii. Approving SLDC charges as proposed for the MYT period;
- iii. Approving short-term Open access charges for FY23-25.

### **Commissions' Analysis and Decisions:**

In accordance with the provisions of the KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006, as amended from time to time, the Commission has taken up the item-wise analysis of expenditure and revenue. In this Chapter the analysis and the decisions of the Commission thereon, are discussed in the following paragraphs.

### **5.2 Capital Investment Plan for FY23-25:**

KPTCL has proposed a capex of Rs.3,521.83 Crores, Rs.3562.75 Crores and Rs.3,523.94 Crores for the Control Period FY23, FY24 and FY25 respectively under MYT regime, duly indicating the capex requirement for the completed, ongoing works, new works and GCB & Civil / Misc. works to achieve the following objectives:

- a) To meet additional load;
- b) To improve voltage profile;
- c) To take up Green Energy Corridor (GEC) Projects;
- d) To strengthen the Bengaluru city transmission network;
- e) To facilitate 24/7 power supply by ESCOMs.

KPTCL has further stated that, it is ensuring development of efficient, coordinated and economical system of intra-state transmission lines for smooth flow of electricity from generating stations to the load centres through systematic planning and implementation of the transmission capacity building programmes in the State.

The KPTCL's proposed Capital Investment Plan for FY23, FY24 and FY25 is as under:

**TABLE – 5.3**  
**Summary of proposed Capital Investment Plan**

(Amount in Rs. Crores)			
Financial Year	FY23	FY24	FY25
<b>Stations</b>	1,704.70	2,286.47	2,713.40
<b>Lines</b>	787.74	709.43	409.64
<b>Augmentation</b>	786.88	350.67	206.48
<b>Civil Works</b>	20.00	20.00	20.00
<b>Others</b>	62.51	36.18	14.42
<b>GCB</b>	100.00	100.00	100.00
<b>SCADA</b>	10.00	10.00	10.00
<b>Misc</b>	50.00	50.00	50.00
<b>Total</b>	<b>3,521.83</b>	<b>3,562.75</b>	<b>3,523.94</b>

**TABLE - 5.4**  
**Breakup of proposed Capital Investment Plan**

Particulars	FY23		FY24		FY25	
	No's	Amount in Rs. Crores	No's	Amount in Rs. Crores	No's	Amount in Rs. Crores
Completed works	255	793.85	257	670.52	262	1,091.00
Ongoing works	372	956.69	246	1,300.65	124	766.68
New Works	672	1,591.29	426	1,411.58	302	1,486.26
GCB & Civil /Misc. works	-	180.00	-	180.00	-	180.00
<b>Total</b>	<b>1299</b>	<b>3,521.83</b>	<b>929</b>	<b>3,562.75</b>	<b>688</b>	<b>3,523.94</b>

KPTCL, in its filing has stated that the proposed capex is planned to fulfil the objectives and responsibilities as envisaged in the Electricity Act, 2003 and the National Electricity Policy, through systematic planning and implementation of the transmission capacity building programme in the State to achieve ultimate objective of cost effective delivery of power.

**Commission's Analysis and Decisions:**

The major observations of the Commission, the replies furnished by KPTCL and the decision of the Commission on the major observations thereon is as under:

1. The Commission, in its preliminary observations had directed KPTCL to provide details of planning and implementation of **Green Energy Corridor** Projects in

the State considering the present status of RE and future growth in RE capacity along with complete details of works being carried out and to be carried out to meet the anticipated RE Additions.

KPTCL, in its reply has stated that it has proposed 7-works for reliable evacuation of around 4794 MW under **Green Energy Corridor (GEC) Phase-I** of MNRE and has further submitted that it is awaiting MNRE concurrence to take up proposed 13 projects under **Green Energy Corridor Phase-II**.

The Commission notes that, some of the works are yet to be completed which are taken under GEC Phase-I. Hence, Commission directs KPTCL to complete the remaining works and submit the progress thereon.

2. The Commission, in its preliminary observation had directed KPTCL to furnish its network adequacy to provide '**24X7 Power for All**' throughout the State, without any constraints, during the Control Period FY23 to FY25, under the Joint Initiative Programme of Government of India and Government of Karnataka which began few years ago and also directed KPTCL to indicate the measures already initiated and the action plan to achieve network adequacy to provide '**24X7 Power for All**' during the said Control Period.

KPTCL has submitted that four stations have been commissioned and one station is under implementation. Further, three lines have been commissioned, one line is under implementation and two works namely construction of 400kV D/C quad moose line from Edlapur to Bellary(BPS) and Edlapur to Yeramarus are likely to be deferred.

The Commission has taken note of the reply submitted by KPTCL. The Commission directs the KPTCL to complete the balance works at the earliest.

3. The Commission also notes the reply submitted by KPTCL on the impact of delay in completion of projects resulting in increase in cost and increase in per unit of cost of transmission of electricity affecting Cost effective delivery of power and also the impact of the proposed capex on the tariff. The Commission notes that KPTCL has not furnished the quantitative analysis for

the above observations. The reply submitted by KPTCL is not satisfactory. Hence, Commission directs KPTCL to take up the quantitative analysis on the above subject matter for improvement of its operational and financial efficiency and submit its analysis to the Commission, in the interest of consumers.

4. The Commission in its Preliminary Observations had directed KPTCL to submit list of Capital works duly segregating them in to completed works, ongoing works and works to be taken up in the near future including projects pertaining to FY22 from the list of 1490 number of capital works which are prepared in a chronological order and also directed to submit the abstract for the list for the works pertaining to the control period in tally with Table -11 (a) along with compliance to the observations and reasons for amount to be incurred is left blank against some of the works in the list.

In reply, KPTCL has submitted that the list of capital works is prepared based on the Annual Programme of Works (APW) (which consists of commissioned works but not financially closed, ongoing works & DPR approved works) along with tentative list of capital works proposed for the perspective plan. Unless a work is financially closed, it will be the part of capital works list. Every year the APW list is revisited and updated based on the completion of the works in the previous year. Hence all such works are retained in the capital works list so that the budget re-appropriation can be made as and when needed during the MYT period 23-25. Hence, specific amount for such works is not indicated in the list.

From the reply, the Commission concludes that KPTCL is not properly planning and monitoring its capital works even after increase in time overrun and cost overrun in projects and further insist the Commission to approve the works which amount to be incurred is not indicated. In such cases, the Commission is unable to approve the proposed capex of KPTCL without analysing the Tariff Implications of the works for which amount to be incurred is not indicated. In view of this the Commission directs KPTCL not take up such capital works for which amount is not indicated in the list for the control period.

5. The Commission had directed KPTCL to furnish the reasons for considering loans from commercial banks for entire capex and not considering the internal resources for sources of funding in format T-9.

In reply, KPTCL has submitted that it has considered borrowing of Rs.2,450.00 Crores from commercial banks (70% of the proposed capex Rs.3,500.00 Crores for FY23-25) and remaining 30% will be met through internal resources only.

6. The Commission in its Preliminary Observation had directed KPTCL to give clarification on providing the budgets towards completed works for the subsequent two years (FY24 & FY25) that too by providing huge amounts of Rs.670.52 Crores and Rs.1091.00 Crores respectively and also for indicating the Budget for completed works amounting of Rs.793.85 Crores for FY23.

In reply, KPTCL has submitted that the budget indicated for completed works Rs.793.85 Crores, Rs.670.52 Crores and Rs.1091 Crores for FY23, FY24 & FY25 respectively are the amounts required for the financial closure of the works which are completed during previous, financial years and also submitted that most of the targeted works in the financial year are completed during the last quarter of the year. Hence financial closures are achieved in the ensuing financial Years. Further, KPTCL has assured the Commission that it will make all efforts to financially close the completed works in the concerned Financial Year to avoid further spill over.

7. The Commission in its observations had directed KPTCL to furnish reasons for indicating huge amount Rs.3514.68 Crores under the head of account 'Work in Progress' along with remedial action taken to reduce the huge WIP balance. In reply KPTCL has stated that it has taken up establishment of new substations, augmentation of existing stations besides construction of exclusive transmission lines for strengthening the existing transmission network catering to the demands of ESCOMs and facilitation of evacuation of RE Power under GEC Phase 1 and commissioning many of these major works annually to a tune of Rs.2,000.00 Crores. KPTCL has further submitted that the

work in progress is in the range of 1.5 times of annual capital expenditure incurred by KPTCL.

In view of this the Commission directs KPTCL to monitor the physical and financial progress of capital works taken up, so that all the planned works shall be completed in a time bound manner and categorize them in the immediate next year in order to create assets and to pass on the real benefits to the consumers.

The status of capex proposed, approved, incurred and percentage achievement of capex incurred for the period from FY16 to FY21 is as under:

**TABLE - 5.5**  
**KPTCL CAPEX Approved v/s Actuals**  
(Amount in Rs. Crores)

Particulars	FY16	FY17	FY18	FY19	FY20	FY21
Capital investment proposed	1,400.00	2,000.00	2,000.00	2,000.00	3,207.97	3,269.64
Capital investment approved by the Commission	1,400.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Actual capital investment incurred as per audited accounts	1,278.81	1,701.96	1,825.28	1,873.92	2,231.63	2,211.32
Percentage achievement	<b>91.34%</b>	<b>85.10%</b>	<b>91.26%</b>	<b>93.70%</b>	<b>111.58%</b>	<b>110.57%</b>

It is seen from the above that the actual average capex for the last three years is around Rs.2105.62 Crores annually.

The Commission notes that, the capex required for completed works and the ongoing works amounts to more than 50% of the capex proposed for the control period. This shows that, every year KPTCL is carrying forward a huge amount relating to works in progress to the next year, resulting in delay in completion and categorization of works.

In view of the above, the Commission is of the view that allowing huge capex (which is not likely to be achieved), would have unjustified tariff implications and would amount to burdening the consumers with higher tariff without passing on the corresponding benefits to them. Hence, keeping in view the interest of



consumers in mind, the capex to be allowed should be reasonable and is achievable, so as to strike a balance between the capex needs and the likely achievement by the transmission licensee,

**Hence, the Commission recognizes capex of Rs.2500 Crores for each of the years of the Control Period FY23-25, subject to prudence check. However, considering the internal resources and equity to finance the capex, the Commission decides to consider a reasonable amount of Rs.2000 Crores for the ARR and tariff computation and directs KPTCL that, if it requires any additional capex, it shall incur the same through re-appropriation of the amounts saved in other heads of expenditure, with proper justification. KPTCL shall not approach the Commission in the middle of the year for any additional capex requirement.**

### 5.3 Transmission Losses for FY23-25

KPTCL, in its filing, has projected the transmission losses for the Sixth Control Period based on the energy input into the KPTCL grid and energy output as measured at interface points with ESCOMs. Further, the energy assessed for supply through open access is also included. The transmission losses projected for the Control Period FY23-25 are as follows:

Particulars	As per KPTCL filing		
	2022-23	2023-24	2024-25
Input Energy in KPTCL Grid (MU) as estimated by ESCOMs	71185.49	73479.73	75893.72
Energy at interface point (MU)	69136.77	71401.72	73785.39
Transmission loss in MU	2048.72	2078.01	2108.33
Transmission loss in %	2.878	2.828	2.778

KPTCL has proposed the transmission loss trajectory for the control period is as follows:

Range	FY23	FY24	FY25
Upper Limit	2.978	2.928	2.878
Average	2.878	2.828	2.778
Lower Limit	2.778	2.728	2.678

KPTCL has submitted that, it has taken up system improvement works like adding new/link lines, augmentation of existing transformer capacities and establishment of new sub-stations closer to the load centres. KPTCL has stated that, the proposed works would enable creation of robust transmission network, improve the system reliability, besides reducing transmission losses.

### **Commission's Analysis & Decision:**

The Commission, in its preliminary observations, had noted that the actual transmission losses are indicated as 3.161% for FY19, 3.129% for FY20 and 3.025% for FY21. The Commission has approved a revised transmission loss at 2.978% for FY22. As compared to the approved losses for FY22, KPTCL has proposed a reduction of 0.10% for FY23. Thereafter, KPTCL has proposed a reduction 0.05% for FY24 & FY25. Considering the huge capex proposed for the control period, the projected transmission losses, with a reduction of the 0.05 percentage point uniformly for all the years of the control period, is not justifiable. KPTCL shall furnish the justification for considering the reduction of 0.05 percentage point for each year of the control period and may reconsider revising the projected transmission losses for FY23-25.

KPTCL in its reply has submitted that the bandwidth of transmission loss variation indicated is 0.10% which is higher than the actual reduction of 0.09% between FY20 and FY21. As such the reduction of transmission losses is projected considering 0.05% annually. However, exact transmission loss will be known only after completion of the year and the same would be filed in Annual Performance Review of the respective years.

Considering the actual loss levels achieved in FY20, the current level of transmission losses reported for FY21 and the capex proposals for the control period FY23-25, the Commission approves the following trajectory of transmission loss levels:

<b>Range</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>
Upper Limit	2.914	2.814	2.714
Target (Average)	2.864	2.764	2.664
Lower Limit	2.814	2.714	2.614

#### 5.4 O & M Expenses:

##### **KPTCL's Submission:**

KPTCL in its petition, has projected the total O&M expenses at Rs.2282.18 Crores, Rs.2615.14 Crores and Rs.2997.02 Crores for the MYT period i.e., for the period FY23, FY24 and FY25 respectively. This amounts consists of Rs.1672.42 Crores, Rs.1906.55 Crores and Rs.2173.47 Crores towards employee cost and the remaining are R&M and A&G expenses for FY23, FY24 and FY25, respectively. Further, KPTCL in its filing, has submitted that it has estimated the employees cost based on normal increase like annual increments and release of Dearness Allowance. KPTCL has considered a cumulative average growth rate of 14% over the actual of FY21 for the projecting the employee costs for FY23 to FY25. However, as pay revision is due from 01.04.2022, KPTCL has considered an increase of 26% on par with the previous pay scale revision for FY23 projection.

KPTCL has considered Rs.456.73 Crores, Rs.520.68 Crores and Rs.593.57 Crores towards Additional O&M expenses on account of contribution of terminal benefits to P&G Trust and Rs.106.97 Crores, Rs.121.94 Crores and Rs.139.02 Crores towards earned leave encashment for FY23, FY24 and FY25.

KPTCL has projected A&G expenses based on the average growth rate of 14% for the sixth control period. The A&G expenses include expenses like Rent, Rates and Taxes, expenses towards Station Maintenance Contract, Security arrangement, Insurance and Telephone charges etc.

KPTCL has projected the R&M Expenses for the control period considering the cumulative average growth rate of 17% over the actual amount for the year FY21. KPTCL has stated that the proposed increase is essential to improve existing stations and other office buildings, as also the stations likely to come up during the 6th control period. Further, KPTCL has also considered the maintenance of Transmission lines, SCADA infrastructure, station control room equipment, TCD and RT division equipment etc. while computing these projections. Hence, the O&M expenses worked out by the KPTCL is as follows:

**Summary of O&M Expenses projections for the MYT period.**

**TABLE – 5.6**  
**O&M Expenses – KPTCL's projections**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
R&M Expenses	448.78	525.07	614.34
Employee Cost	1672.42	1906.55	2173.47
A&G Expenses	160.98	183.52	209.21
<b>O &amp; M expenses (excluding expenses shared by ESCOMs)</b>	<b>2282.18</b>	<b>2615.14</b>	<b>2997.02</b>

KPTCL has also worked out the normative O&M expenses as per the O&M norms specified in the KERC tariff Order dated 30.05.2019, considering the following:

a. Norms under KERC Tariff Order 30.05.2019 for O&M expenses:

Particulars	2021-22
O&M expenses for lines (in Lakhs/km)	1.27
O&M expenses for bays (in Lakhs/bay)	4.72

b. The projected details of circuit kilometres of transmission lines as follows:

**TABLE – 5.7**  
**Voltage class-wise transmission lines – KPTCL's Projections**

Voltage Class	FY22	FY23	FY24	FY25
400 kV	3934	3934	3967	4099
220 kV	13070	13372	13923	14303
110 kV	11594	12425	12946	13532
66 kV	12132	12582	13483	14204
<b>Total</b>	<b>40730</b>	<b>42313</b>	<b>44319</b>	<b>46138</b>

c. The projected details of number of bays are as follows:

**TABLE – 5.8**  
**Number of Bays – KPTCL's Projections**

Year	Line Bay	Transformer Bays	PT Bay	Capacitor Bank Bay	11 KV Bay	Total (A+B+C+D+E)
	A	B	C	D	E	
FY22	6075	2910	1853	1229	13863	<b>25930</b>
FY23	6281	3087	1912	1373	14771	<b>27424</b>
FY24	6585	3249	2004	1505	15474	<b>28817</b>
FY25	6908	3431	2126	1644	16193	<b>30302</b>

Considering the above, the KPTCL has computed the O & M expenses as per MYT Regulations as indicated below:

**TABLE – 5.9**  
**Normative O&M Expenses for FY23-25 - KPTCL's Projections**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
Normative O & M Expenses for bays	1294.41	1360.16	1430.25
Normative O & M Expenses for lines	537.38	562.85	585.95
<b>Total O&amp;M Expenses</b>	<b>1831.79</b>	<b>1923.01</b>	<b>2016.20</b>

KPTCL has stated that, even if the inflation at the rate of 5% is considered, the O&M expenses as per normative rates would increase marginally and this amount would be less compared to the O&M expenses projected by KPTCL based on average growth rate and escalation due to pay revision in employee costs.

Hence, KPTCL has requested to approve the O & M expenses of Rs.2282.18 Crores, Rs.2615.14 Crores and Rs.2997.02 Crores respectively for FY23 to FY25 as proposed by them.

#### **Commission's Analysis and Decision:**

The Commission in its preliminary observations, had observed that KPTCL in its filing, had projected the no. of Bays and transmission lines for FY22 to FY25 as shown below:

Year	No. of Bays	Transmission lines in C.Kms
FY22	25930	40730
FY23	27424	42313
FY24	28817	44319
FY25	30302	46138

The Commission sought from KPTCL, the basis for estimation of the Bays and transmission lines for the control period with reference to the actual Transmission lines and Bays as at the end of FY21. The Commission also directed KPTCL to consider the proposed capital works and ongoing works while estimating the number of Bays and transmission lines.

KPTCL in its reply to the preliminary observation, has submitted that the number of Bays and lines for FY 23-25 are projected based on the Capex programme for the sixth control period.

The Commission also observed that KPTCL, in its filing, had projected Terminal benefits and other staff welfare expenses etc., at Rs.362.49 Crores, Rs.456.73 Crores, Rs.520.68 Crores and Rs.593.57 Crores respectively for FY22 to FY25. KPTCL was directed to furnish the basis and the computation statement showing the details for claiming the amount in respect of employees recruited prior to 31.03.2002 and those employees covered under NDCPS scheme.

KPTCL in its reply, has submitted that the Terminal benefits for employees has been worked out based on Actuarial valuation for the respective years and for the employees covered under NDCPS rate of contribution prescribed by GoK from time to time. The projections for the control period FY23-25 are based on average rate of expenses in the previous years booked under the annual accounts.

The Commission notes that, KPTCL has submitted that the pay revision will be effective from 01.04.2022 and therefore, has considered an increase of 26% on par with previous pay scale revision. The Commission has not considered in this order the impact of pay revision as its yet to be incurred. The Commission would consider the impact of pay revision during Annual Performance Review after it is incurred.

As per the provisions of the MYT Regulations, the transmission licensee is required to propose O&M expenses on the basis of per Ckt-Km of transmission lines and per bay of sub-stations for the base year and apply appropriate inflation factors.

While computing the O&M expenses the Commission has considered the average actual O&M expenses incurred by the KPTCL in the preceding three years for which audited accounts were available, for computation of the base year data for projection of the O & M expenses for the next control period.

For arriving at the O&M expenses for the control period, the Commission has considered the average of actual O&M expenses including contribution to P&G

Trust and leave contributions and without SLDC charges of preceding three years as per the audited accounts for FY19 to FY21 as base year data. The Commission notes, the variation / downward trend in the actual O&M expenses incurred during FY19 to FY21. The actual total O&M expenses for FY20 and FY21 is lesser than the average O&M expenses of FY19 to FY21. Considering the reduction in the contribution of terminal benefit to P&G Trust as per the order of P&G Trust along with the reduction in the O&M expenses during FY20 and FY21, the Commission to avoid the burden on the consumers particularly during the present poor condition due to slowdown of economic activities in the country / State decides to allow the reasonable O&M expenses during the next control period FY23 to FY25. Accordingly, for the computation of O&M expenses for the control period the Commission has recognised the actual O&M expenses inclusive of P&G Trust and leave contributions of FY21 as the base data and escalated the same at an inflation rate of 6.9602% every year for projecting the O&M expenses for the control period FY23-25. As such, the break up details of P&G contribution furnished by KPTCL is not considered separately.

Accordingly, the Commission has computed the allowable O & M expenses for the Control Period FY23-25 by considering the actual O & M expenses for the base year the FY21 (inclusive P&G contribution and leave encashment) duly applying the inflation factor computed with apportionment of CPI and WPI in the ratio of 80: 20 during the preceding control period and as the employee cost constitutes nearly about 80% of the O & M expenses. The inflation factor is determined based on the similar methodology adopted by the CERC, from time to time, as shown below:

**TABLE – 5.10****Computation of weighted inflation index**

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2009	81.9	54.5	59.98				
2010	89.7	61.1	66.82	1.11	0.11	1	0.11
2011	98.2	66.5	72.84	1.21	0.19	2	0.39
2012	105.7	72.7	79.3	1.32	0.28	3	0.84
2013	111.1	80.6	86.7	1.45	0.37	4	1.47
2014	114.8	85.7	91.52	1.53	0.42	5	2.11
2015	110.3	90.8	94.7	1.58	0.46	6	2.74
2016	110.3	95.3	98.3	1.64	0.49	7	3.46

2017	114.1	97.6	100.9	1.68	0.52	8	4.16
2018	118.9	102.4	105.7	1.76	0.57	9	5.10
2019	121.2	110.2	112.4	1.87	0.63	10	6.28
2020	121.8	116.3	117.4	1.96	0.67	11	7.39
A= Sum of the product column							34.05
B= 6 Times of A							204.28
C= $(n-1)*n*(2n-1)$ where n= No of years of data=12							3036.00
D=B/C							0.07
g(Exponential factor)= Exponential (D)-1							0.0696
e=Annual Escalation Rate (%)=g*100							6.9602
As per CERC Notification No. Eco T I / 2021-CERC dated 23.04.2021 with weightage of 80% on CPI and 20% on WPI							

The Commission notes that, as per the actual data furnished by the KPTCL for the FY21, substantial amount of the O&M expenses was spent on maintenance of Bays (stations) as compared to transmission lines. Hence, the Commission decides to allocate 70% of the cost to maintenance of bays and 30% to maintenance of lines.

The Commission notes that the number of Bays and voltage class-wise Transmission lines projected by the KPTCL for the control period FY23 to FY25 are on a higher side when compared with the actual number of Bays and transmission lines in ckt-kms. during the previous years. The higher number of bays and lines projected by the KPTCL has resulted in claiming of higher amount of O&M expenses and which in turn lead to front loading of the same in the transmission charges to be payable by the ESCOMs and ultimately to the consumers. Thus, the Commission would like to reiterate that KPTCL should project the number of bays and transmission lines to be added during the next control period FY23 to FY25 in a realistic manner.

For arriving at the number of bays and transmission lines which are likely to get added during the control period FY23-25, the Commission has considered the actual number of bays and transmission lines added during the previous years as per the audited accounts and also the amount of capex approved for the control period. The Commission has reckoned the same growth rate for projecting the number of bays and transmission lines (Ckt-kms) likely to be added during the control period, for computation of O&M expenses as detailed below:



**TABLE - 5.11**  
**Approved Total Number of Bays and Transmission lines**  
**(Ckt-kms) for FY23-25**

Year	No. of Bays	No. of Transmission Lines (Ckt-kms.)
2023	26872	40691
2024	27822	41691
2025	28822	42741

Considering the above factors, the actual O&M expenses incurred during FY21 as per the audited accounts and considering the number of Bays and Lines as made out in the above table that are likely to be added, the normative O & M expenses for the FY23-25 is worked out, as follows:

**TABLE – 5.12**  
**Normative O & M Expenses for the Control Period FY23 to FY25**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
O&M cost in terms Rs. Thousand/bay	538.30	575.77	615.85
O&M cost in terms Rs. Thousand/Km of Line	148.45	158.78	169.83
Inflation rate*	6.9602	6.9602	6.9602
No. of Bays	26872	27822	28822
Length of Line in Ckt-Kms	40691	41691	42741
O&M Expenses for Bays Rs. Crores	1446.53	1601.91	1774.99
O&M Expenses for Lines Rs Crores	604.06	661.98	725.89
<b>TOTAL O&amp;M Expenses as per Norms Rs. Crores</b>	<b>2050.59</b>	<b>2263.89</b>	<b>2500.88</b>

The Commission while projecting the O&M charges for the control period, has considered the actual O&M costs including contribution to P&G Trust and leave contributions for FY21. Thus, the allowable O&M charges computed as above for the control period FY23 to FY25 is inclusive of revision of pay, contributions to P&G Trust and the leave contribution amounts. Accordingly, the Commission is not allowing the same amount as an additional uncontrollable O&M expenses separately for FY23 to FY25.

Based on the above, the normative O&M expenses for FY23-25 are as follows:

**TABLE – 5.13**  
**Approved O&M Expenses for FY23-25**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
Allowable O&M Expenses with P&G Contribution leave encashment and pay revision	2050.59	2263.89	2500.88

**KPTCL's Application for additional Employee cost for FY23-25:**

KPTCL in its Affidavit dated 21<sup>st</sup> March, 2022 has filed application under 62 & 64 of Electricity Act read with relevant KERC (Tariff) Regulations, 2000 and amendments, KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2006 and amendments for the purpose of requirement of additional employee cost for the control FY23-25.

In the said application, it is informed that the Government of Karnataka vide its Order dated 09.03.2022, has directed KPTCL and ESCOMs to file application before the Commission for including the Government portion of contribution towards Pension & Gratuity Trust in the Annual Revenue Requirement of KPTCL for FY23 – FY25, since the Government has not made any budgetary allocation towards Pension & Gratuity Contribution payable to Pension Trust and to work out the transmission tariff by including the said amount.

**Commissions Observation:**

Commission notes that, the application for including the Government portion of Pension & Gratuity contribution in the ARR for FY23-25 has been filed on 21.03.2022, which is after the conclusion of the public consultation process in determination of the Transmission Tariff of KPTCL and retail supply tariff of ESCOMs in the State. The KPTCL and Government are aware that as per Section 64 of the Electricity Act, the Commission has to issue Order on the Tariff application filed by KPTCL and ESCOMs within 120 days of filing of tariff application its before 31<sup>st</sup> March, 2022. The claim for inclusion of additional employee cost in the ARR is a not part of the tariff filing which was placed before the public for consultations in terms of Section 64 of the Electricity Act. Hence, the Commission is unable to consider the application for consideration of additional employee cost towards Pension and Gratuity Contribution payable by Government, which is submitted after the conclusion of Tariff proceedings.

## 5.5 Depreciation:

KPTCL in its Petition, has submitted that they have considered the depreciation rates as prescribed by CERC for arriving at the depreciation for the control period. KPTCL has worked out the depreciation amount based on the average growth rate of depreciation for the last three years. The depreciation claimed by the KPTCL for the FY23-25 is as under:

**TABLE – 5.14**  
**Depreciation – KPTCL's Projections**

Amount in Rs. Crores		
FY23	FY24	FY25
1299.09	1441.99	1600.61

### Commission's Analysis and Decisions:

The Commission, in its preliminary observations, had pointed out that KPTCL is claiming the depreciation and has not projected the amount accounted towards withdrawal of depreciation on asset created out of consumers' contribution for FY23, FY24 and FY25 respectively. Accordingly, KPTCL was directed to submit the details of depreciation on assets created out of consumer contribution for FY23 to FY25.

KPTCL, in its reply to the preliminary observations, without giving any details / amount has submitted that since the assets that would be created out of consumer contribution is not predictable, KPTCL has not projected creation of such assets for FY23-25, in contravention to the provisions of MYT Regulation and the orders of the Hon'ble Tribunal in the matter.

As per the MYT Regulations, as amended from time to time, the allowable depreciation is based on the rate of depreciation as specified by the CERC from time to time. The Commission has considered the opening and closing balances of gross block of assets for the FY21 as per the audited accounts. As discussed in the earlier paragraphs of this chapter, the Commission has allowed an amount of Rs.2500 Crores for each of the years of the control period towards capex as against Rs.3521.83 Crores for FY23, Rs.3562.75 Crores for FY24 and Rs.3523.94

Crores for FY25 as proposed by KPTCL. However, considering the actual achievements of the KPTCL, as against approved capex during the previous five control periods and to avoid front loading of the depreciation and interest amount in the transmission tariff, for the proposed investments and likely addition of assets, the Commission decides to reckon (for the purpose of approval of ARR) the expected capital expenditure of Rs.2000 Crores for each of the years of the control period for FY23-25 subject to prudence check at the time of approving the APR for the relevant years. Based on this decision, the Commission has considered category-wise addition of assets as proposed by the KPTCL on pro-rata basis. Since, the depreciation during the year is computed on the basis of capitalization of assets from time to time, during the year, the Commission has determined the allowable depreciation on the average of opening and closing gross block of assets by applying the actual weighted average rate of depreciation as per the audited accounts for FY21.

In accordance with the Accounting Standards 12 of the Institute of Chartered Accountants, the Commission has deducted the depreciation on account of assets created out of consumer contribution / grants. The depreciation is computed as per the actual data of fixed assets and created out of consumer contribution / grants and depreciation charged thereon as per the audited accounts for the FY21. Based on the rate of depreciation, the allowable depreciation is computed on the capital assets excluding assets created out of consumers' contribution / grants.

The Commission also notes that, year on year, there is increase in the amount under the head of account- work in progress. The Commission directs KPTCL to take suitable action to complete and commission the works on time to put the assets for use and reduce the balance of work in progress.

Accordingly, the allowable depreciation for the control period are as follows:

**TABLE – 5.15**  
**Approved Depreciation for FY23-25**

Amount in Rs. Crores

Sl. No.	Particulars of assets	FY23	FY24	FY25
1	Land and Rights			
2	Amortization of Lease hold assets	1.24	1.36	1.48
3	Building and structures	29.66	32.40	35.30
4	Plant and Machinery Substation Transformers, Circuit breakers, other fixed apparatus of rating 100 MVA and above.	605.24	661.02	720.42
5	Substation Transformers, Circuit breakers, other fixed apparatus of rating below 100 MVA .	600.51	656.32	715.51
6	Hydraulic Works	7.95	8.68	9.46
7	Other Civil Works	12.85	14.04	15.30
8	Vehicles	2.61	2.85	3.10
9	Furniture Fixtures	1.82	1.99	2.17
10	Office Equipment	0.24	0.27	0.29
11	Intangible Assets	-	-	-
12	Depreciation on released assets and released assets issued to repairs.	-	-	-
<b>13</b>	<b>Gross Depreciation (Before Capitalisation)</b>	<b>1262.12</b>	<b>1379.11</b>	<b>1503.03</b>
14	Less: Depreciation withdrawn on assets created out of consumer contribution and grants	115.09	128.21	141.33
15	Grand Total without assets created out of Consumer Contribution/ augmentation Charges	1147.03	1250.90	1361.70
16	Less: Depreciation on SLDC assets	0.22	0.22	0.22
17	Allowable depreciation	1146.81	1250.68	1361.48
18	Capitalised Amount of Depreciation	0.483	0.483	0.483
19	Allowable Net Depreciation	1146.33	1250.20	1361.00

Thus, the Commission decides to allow a net depreciation of Rs.1146.33 Crores, Rs.1250.20 Crores and Rs.1361.00 Crores for FY23, FY24 and FY25 respectively, subject to prudence check of capex for the relevant years.

## 5.6 Interest and Finance Charges:

### KPTCL Submissions:

KPTCL in its filing, has submitted that, the Interest cost has been estimated on the existing loan portfolios and on proposed loans during the sixth control period. KPTCL has submitted that it has considered the interest on long term loans at 7%

for 2022-23, 7.5% for 2023-24 and 8% for 2024-25. The funding of Capex for the control period is expected through long term debts.

The details of Interest and Finance charges projected for the FY23 to FY25 are, as follows:

**TABLE – 5.16**  
**Interest & Finance Charges – KPTCL's Projections**  
Amount in Rs. Crores

	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>
<b>Interest and Finance charges</b>	717.41	833.13	953.54
Capitalization	103.17	106.27	109.46
<b>Net</b>	<b>614.24</b>	<b>729.86</b>	<b>844.08</b>

#### **Commission's Analysis and Decisions:**

The Commission notes that, as per D-9 format, KPTCL has claimed the interest on capital amount by including the interest on short term working capital loan for FY23 to FY25.

The Commission notes the capex proposed by KPTCL for Rs.3521.83 Crores for FY23, Rs.3562.75 Crores for FY24 and Rs.3523.94 Crores for FY25. For the purpose of computing the interest on long term loans, and also for depreciation the Commission has reckoned the capex of Rs.2000.00 Crores for each of the years of the control period for FY23 to FY25. Further, the Commission by considering the equity and internal resources has reckoned Rs.1225.00 Crores as new Capital Loan for each year of the Control Period FY23-25.

The Commission has taken note of the long term capital loan portfolio of KPTCL. Accordingly, KPTCL has availed the loan in the past and recent years at the rate of 8.25% to 7.61% from financial institutions.

The weighted average rate of interest on long term loans as per the audited accounts for the FY21 is 7.61% p.a. Thus, for arriving at the interest rates for the control period FY23 to FY25, the weighted average rate of interest of the preceding year FY21 on the existing loan balances has been considered.

The Commission notes the rate of interest considered by KPTCL is claiming the interest on capital loan for FY23 to FY25. The Commission further notes that, the present interest rates by commercial banks and financial institutions are charged mainly on the basis of Marginal Cost of fund based Lending Rates (MCLR). The Commission notes that, the present SBI MCLR rate for capital loans with a tenure of 3 years is 7.30%. Considering the present MCLR, and 200 basis points as per the MYT Regulation, the Commission decides to allow an interest rate of 9.30% for FY23-25 for new Capital loans. It shall be noted that, the rate of interest now considered by the Commission on the new capital loans is subject to review during APR.

On the basis of the above discussions and considering the closing balance of long term loans for the FY21, and on the projected loan balance for the period from FY23 to FY25, the Commission has computed the allowable interest on loans as follows:

**TABLE – 5.17**  
**Approved Interest on Loans for FY23-25**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
Opening balance of loans (Secured and unsecured)	7913.35	8362.84	8755.69
Add : New Loans (Borrowings)	1225.00	1225.00	1225.00
Less : Repayments	775.51	832.15	809.95
<b>Total loan at the end of the year</b>	<b>8362.84</b>	<b>8755.69</b>	<b>9170.74</b>
Average Loan	8138.09	8559.26	8963.21
Weighted average rate Interest on Existing Loan Balance	7.851%	7.955%	8.047%
Allowable Interest Rate on new loan in %	9.30%	9.30%	9.30%
<b>Allowable Interest on Capital Loan</b>	<b>638.93</b>	<b>680.88</b>	<b>721.25</b>
<b>Interest Capitalized allowable</b>	<b>-103.17</b>	<b>-106.27</b>	<b>-109.46</b>
<b>Net Interest allowed</b>	<b>535.76</b>	<b>574.61</b>	<b>611.79</b>

Thus, the Commission decides to allow interest on capital loans is **Rs.535.76 Crores, Rs.574.61 Crores and Rs.611.79 Crores for FY23, FY24 and FY25 respectively, as the net interest on capita loan.** The interest and finance charges approved above for the MYT period are subject to prudence check of capex actually incurred during the relevant years of the control period.

## 5.7 Interest on Working Capital:

KPTCL in its filings, has submitted that it is managing its finances through short-term borrowings to gain the interest rate advantage. However, KPTCL has not claimed the interest on working capital while proposing the ARR for the control period FY23 to FY25. Further, KPTCL has requested the Commission to allow the interest on working capital for the control period as per the norms under the MYT Regulations.

### Commission's Analysis and Decisions:

The Commission notes that, the requirement of working capital has to be met by borrowing on short term basis and utilized for the purpose of financial management of the day to day business of the utility. The KPTCL's in its filing under Format -9 has indicated the short term loans balances and interest thereon of Rs.37.80 Crores, Rs.42.11 Crores and Rs.41.39 Crores respectively for FY23 to FY25 and included and claimed along with the interest on long term capital loan for FY23 to FY25.

The Commission, in accordance with the norms specified under MYT Regulations, by considering the present SBI MCLR of 7% for one year tenure along with 250 basis points has considered the interest rate at 9.50% per annum in allowance of interest on working capital loan for FY23 to FY25. The computation of allowable normative interest on working capital for FY23 to FY25 is as under:

**TABLE – 5.18**  
**Approved Interest on Working Capital for FY23-25**

Particulars	Amount in Rs. Crores		
	FY 23	FY 24	FY 25
One-twelfth of the amount of O&M Exp.	170.88	188.66	208.41
Opening GFA as per Audited Accts	26649.79	29049.79	31799.79
Stores, materials and supplies 1% of Opening balance of GFA	266.50	290.50	318.00
Revenue	4555.18	4746.09	4946.09
One-sixth of the expected revenue from Transmission user at the prevailing tariffs	759.20	791.01	824.35
Total Working Capital	1196.58	1270.17	1350.75
Rate of Interest (% p.a.)	9.50%	9.50%	9.50%
<b>Interest on Working Capital</b>	<b>113.67</b>	<b>120.67</b>	<b>128.32</b>



Thus, the Commission decides to allow interest on working capital at Rs.113.67 Crores, Rs.120.67 Crores and Rs.128.32 Crores for FY23, FY24 and FY25 respectively.

#### 5.8 Return on Equity:

The KPTCL in its filing had claimed the Return on Equity by considering the equity plus accumulated surplus under reserves and surpluses at the beginning of the year duly applying the rate of return at 15.5% (along with MAT at the rate of 17.472%) as per the MYT Regulations. The RoE claimed by KPTCL are as follows:

**TABLE – 5.19**  
**Return on Equity – KPTCL's Submission**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
Equity	2182.32	2182.32	2182.32
Reserves & Surplus	4318.39	5539.32	6989.56
Share Deposit	0.00	0.00	0.00
Total	6500.71	7721.64	9171.88
RoE @ 15.50%	<b>1007.61</b>	<b>1196.85</b>	<b>1421.64</b>
RoE with MAT @ 17.472%	<b>1220.93</b>	<b>1450.24</b>	<b>1722.62</b>

#### Commission's Analysis and Decisions:

The Commission has considered the closing balance of paid up share capital, the accumulated surplus/deficit amount under reserve and surplus account and share deposit amount as per the audited accounts for the FY21 as the opening balance of equity for FY22 and the same is the base data for the projections for the control period FY23-25. The Commission in order to avoid the front loading of the allowable RoE in the transmission tariff, has not carried forward and considered the allowable RoE of each year as the additional equity infused during the year for computation of RoE for subsequent year thereon for FY23 to FY25. The Commission in accordance with the provisions of MYT Regulations, as amended has computed the allowable RoE at 15.5%.

**TABLE – 5.20**  
**Approved Return on Equity for FY23-25**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
OB: Paid Up Share Capital	2182.32	2182.32	2182.32
OB: Share Deposit	0.00	0.00	0.00
OB: Reserves & Surplus (accumulated surplus)	3289.48	3289.48	3289.48
<b>Total Equity</b>	<b>5471.80</b>	<b>5471.80</b>	<b>5471.80</b>
<b>Allowable RoE at 18.7815% with MAT</b>	<b>1027.69</b>	<b>1027.69</b>	<b>1027.69</b>

Thus, the Commission decides to allow Rs.1027.69 Crores as ROE with MAT for each of the years for the control period FY23-25.

#### 5.9 Interest and other Expenses capitalized:

The KPTCL in its filing, has claimed the following interest and other expenses to be capitalized during the control period:

**TABLE – 5.21**  
**Proposed capitalization Interest and other Expenses**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
Interest expenses capitalized	-103.17	-106.27	-109.46
Other expenses capitalized	-67.69	-69.72	-71.81
<b>Total</b>	<b>-170.86</b>	<b>-175.99</b>	<b>-181.27</b>

The Commission takes note of the actual amount of interest on capital loans and other expenses capitalised during the previous years as per the audited accounts. Considering the same and the amount of capex and the new borrowings allowed, the Commission decides to allow Rs.103.17 Crores Rs.106.27 Crores and Rs.109.46 Crores as capitalisation of interest for FY23, FY24 and FY25 respectively. Regarding other expenses capitalised, the Commission by considering the actuals as per audited accounts during the previous years, has decided to allow the amounts as claimed by KPTCL, towards other expenses capitalised for FY23-25. **Thus, the Commission decides to allow total capitalised interest and other expenses of Rs.170.86 Crores, Rs.175.99 Crores and Rs.181.27 Crores respectively for FY23-25.**

### 5.10 Non-Tariff Income:

KPTCL in its filing has projected the non-tariff income of Rs.80.58 Crores, Rs.82.99 Crores and Rs.85.48 Crores for FY23, FY24 and FY25 respectively. These amounts mainly include income on account of interest on investments, receipt of rent from staff quarters, receipt of rent from other office buildings, income from sale of scrap, income from trading, and miscellaneous receipts.

#### Commission's Analysis and Decisions:

The Commission notes that, KPTCL in its filing under Format T-4 has projected non-tariff income for the control period considering income from investments, income from sale of scrap, rent from staff quarters /others, etc. The Commission notes the actual other income earned by KPTCL as per audited accounts during the previous years.

Thus, the Commission by reckoning the actual other income earned by the KPTCL during the previous years, decides to allow the other income for the control period for FY23, FY24 and FY25 as under:

**TABLE – 5.22**

#### Approved Non-Tariff Income for FY23-25

Non-Tariff Income	Amount in Rs. Crores		
	FY23	FY24	FY25
	93.54	82.99	85.48

### 5.11 Provision for Taxes:

The Commission had noted that the KPTCL in its application, for the approval of ARR, has not included a provision for income tax.

The Commission, while determining the RoE in the pre-paras for the Control period FY23-25, has also included the applicable MAT on the allowable RoE at 18.7815%. Hence, the Commission has not allowed the income tax once again for FY23 to FY25.

### 5.12 Other Debits:

KPTCL, in its filing has claimed Rs.36.69 Crores, Rs.37.79 Crores, Rs.38.92 Crores in ARR for the control period FY23-25 respectively. Since the Other Debits to be

incurred cannot be estimated before actually incurring them, the Commission has not allowed the Other Debits as claimed by KPTCL.

### 5.13 SLDC Charges:

The KPTCL in its filing, has excluded the SLDC charges in terms of employee cost, R&M expenses, A&G expenses and depreciation as detailed below:

**TABLE – 5.23**  
**SLDC Charges – KPTCL's Submission**

Particulars	Amount in Rs. Crores		
	FY23	FY24	FY25
Employee cost	18.88	19.24	19.61
R&M expenses	2.04	3.36	5.52
A&G expenses	9.13	9.20	9.27
Depreciation	0.22	0.22	0.22
<b>TOTAL</b>	<b>30.27</b>	<b>32.02</b>	<b>34.62</b>

#### Commission's Analysis and Decisions:

The system operations of the SLDC being an activity not related to transmission business. As such the Commission decides that the SLDC charges cannot be factored in the ARR of the KPTCL. As the KPTCL is incurring these costs but has excluded the same in its ARR filing, the same needs to be collected from the users of the transmission network.

The Commission in its tariff Order dated 4<sup>th</sup> November, 2020 had approved SLDC charges of Rs.25.43 Crores for FY21. The Commission in Chapter-4 of this Order, has approved the actual amount of O&M expenses and depreciation charges of SLDC of Rs.28.14 Crores to be recovered from the ESCOMs for FY21 as against the SLDC charges of Rs.25.43 Crores, approved by the Commissions. The net deficit of Rs.2.71 Crores is approved to be collected by KPTCL from ESCOMs towards SLDC charges for FY23.

The Commission notes that, the employee cost of SLDC projected for FY23-25 also includes the component of contribution to P&G trust and leave encashment. As such, the Commission decides to allow the net SLDC charges of Rs.32.98 Crores for FY23 by including the gap in SLDC charges of Rs.2.71 Crores

for FY21, Rs.32.02 Crores for FY24 and Rs.34.62 Crores for FY25, as projected by KPTCL/SLDC.

Thus, the Commission approves the net SLDC charges to be collected as Rs.32.98 Crores, Rs.32.02 Crores and Rs.34.62 Crores during for FY23-FY25.

Accordingly, the Commission decides that these charges are to be recovered by KPTCL from the ESCOMs and other long term transmission network users in proportion to the transmission capacity as follows:

**TABLE – 5.24**  
**Approved ESCOM wise SLDC Charges for FY23-25**

ESCOMs	Revised SLDC Charges for FY23				SLDC Charges for FY24		SLDC Charges for FY25	
	Tr. Capacity in MW for FY23	Difference (Deficit) of FY21 to be Recovered	SLDC Charges for FY23	Total SLDC Charges to be collected in FY23 Revenue and Misc. Revenue	Tr. Capacity in MW for FY24	SLDC Charges to be collected in FY24	Tr. Capacity in MW for FY25	SLDC Charges to be collected in FY25
BESCOM	12673	2.17	15.31	17.48	13373	16.404	14123	17.974
MESCOM	1885	0.18	2.28	2.46	1935	2.374	1985	2.526
CESC	2750	0.35	3.32	3.67	2800	3.435	2850	3.627
HESCOM	4725	0.36	5.71	6.07	4875	5.980	5025	6.395
GESCOM	3020	-0.35	3.65	3.30	3120	3.827	3220	4.098
<b>TOTAL</b>	<b>25053</b>	<b>2.71</b>	<b>30.27</b>	<b>32.98</b>	<b>26103</b>	<b>32.020</b>	<b>27203</b>	<b>34.620</b>

#### 5.14 Revenue including Miscellaneous Charges:

KPTCL in its filing, has projected a revenue Rs.5223.73 Crores for FY23, Rs.5610.11 Crores for FY24 and Rs.5950.11 Crores for FY25 on the estimated transmission capacity of 28730 MW, 30855 MW and 32725 MW respectively.

The Commission in the pre-paras, has reckoned the transmission capacity of 25053 MW, 26103 MW and 27203 MW for FY23, FY24 and FY25 respectively and accordingly computed the existing revenue on the basis of per MW per month transmission charges as approved by the Commission for FY22. The Commission notes the revenue earned by the KPTCL during FY20 and FY21 as per the audited accounts and Commission also notes that along with the transmission charges

collected from the ESCOMs, KPTCL has also earned the revenue of Rs.21.93 Crores for FY20 on account of usage of transmission network by Open Access customers of and Rs.14.20 Crores during FY21. **Accordingly, while estimating the revenue from transmission, the Commission, on the basis of actual miscellaneous revenue and other operating income earned by KPTCL during the previous years, has decided to factor the same in to estimate the total revenue at existing tariff and has reckoned Rs.4555.18 Crores, Rs.4746.09 Crores and Rs.4946.09 Crores for FY23, FY24 and FY25 respectively.**

### 5.15 Abstract of Approved ARR for FY23-25:

The abstract of approved ARR for the control period FY23-25 are as follows:

**TABLE – 5.25**  
**Approved Annual Revenue Requirement for FY23-25**

Amount in Rs. Crores

Particulars	FY23		FY24		FY25	
	As Filed	As Approved	As Filed	As Approved	As Filed	As Approved
Energy available for transmission in MU	71185.49	71645.88	73479.73	73740.45	75893.72	75961.32
Energy sold at IF Points	69136.77	69593.94	71401.72	71702.26	73785.39	73937.71
Transmission Losses in MU	2049.00	2051.94	2078.00	2038.19	2108	2023.61
Transmission Loss in %	2.878%	2.864%	2.828%	2.764%	2.780%	2.664%
Revenue from Transmission of Power & Misc. Revenue in Rs. Crs	5223.73	4555.18	5610.11	4746.09	5950.11	4946.09
Expenditure in Rs. Crs						
Employee Cost	1672.42		1906.55		2173.47	
Repairs & Maintenance	448.78		525.07		614.34	
Admin & General Expenses	160.98		183.52		209.21	
Total O&M Expenses	2282.18	2050.59	2615.14	2263.89	2997.02	2500.88
Depreciation	1299.09	1146.33	1441.99	1250.20	1600.61	1361.00
Interest & Finance Charges	679.61	638.93	791.02	680.88	912.15	721.25
Interest on working capital	37.80	113.67	42.11	120.67	41.39	128.32

Return on Equity with MAT at 21.5488% (19.7575% on allowable equity)	1220.93	1027.69	1450.24	1027.69	1722.62	1027.69
Income Tax	0.00	0.00	0.00	0.00	0.00	0.00
Other Debits	36.69	0.00	37.79	0.00	38.92	0.00
Extraordinary items	0.00	0.00	0.00	0.00	0.00	0.00
Less						
Interest & Finance Charges capitalized	-103.17	-103.17	-106.27	-106.27	-109.46	-109.46
Other Expenses capitalized	-67.69	-67.69	-69.72	-69.72	-71.81	-71.81
Other Income	-80.58	-93.54	-82.99	-82.99	-85.48	-85.48
Net Prior Period Income /Charges	0.00	0.00	0.00	0.00	0.00	0.00
<b>ARR</b>	<b>5304.86</b>	<b>4712.81</b>	<b>6119.31</b>	<b>5084.34</b>	<b>7045.96</b>	<b>5472.38</b>
Carry forward of Deficit/Surplus as per APR of FY21 including unrecovered revenue through Tariff as per approved ARR as per T.O 2020 dated 04.11.2020 (from 4/20 to 10/20) Not kept as Regulatory assets	557.00	49.55	0.00	0.00	0.00	0.00
Amortized Regulatory Assets as per KERC Order dated 19.10.2020 in Rs. Cr.	331.41	331.41	331.41	331.41	331.41	331.41
<b>Total ARR</b>	<b>6193.27</b>	<b>5093.77</b>	<b>6450.72</b>	<b>5415.75</b>	<b>7377.37</b>	<b>5803.79</b>
<b>Surplus/ Deficit</b>	<b>-969.54</b>	<b>-538.59</b>	<b>-840.61</b>	<b>-669.66</b>	<b>-1427.26</b>	<b>-857.70</b>
<b>Transmission Charges per unit in Paise</b>	<b>87.00</b>	<b>71.10</b>	<b>87.79</b>	<b>73.44</b>	<b>97.21</b>	<b>76.40</b>
<b>Transmission Charges in Rs. Per MW/Month</b>	<b>179640.04</b>	<b>169433.18</b>	<b>174221.36</b>	<b>172896.71</b>	<b>187862.75</b>	<b>177792.65</b>

Based on the above approved ARR, the transmission charges for FY23-25 are determined in the subsequent Chapter of this order.

**CHAPTER – 6****TRANSMISSION TARIFF FOR FY23-25****6.0 KPTCL's Submission:**

KPTCL in its application dated 30<sup>th</sup> November, 2021 has furnished the ESCOM wise transmission capacity as follows:

Considering the proposed ARR for FY23-25 and gap in revenue for FY21, KPTCL has projected the transmission tariff for the control period as follows:

**TABLE - 6.1****Transmission Capacity Allocation in MW –KPTCL's submission**

Capacity allocation amongst ESCOMs	2022-23 (Projected)	2023-24 (Projected)	2024-25 (Projected)
BESCOM	14361	15891	16698.5
MESCOM	2210	2210	2210
CESC	3102	3357	3654.5
HESCOM	5657	5827	6422
GESCOM	3400	3570	3740
<b>TOTAL</b>	<b>28730</b>	<b>30855</b>	<b>32725</b>

**TABLE – 6.2****Transmission Charges-KPTCL's Submission**

Particulars	Amount in Rs. Crores		
	FY 23	FY 24	FY 25
Transmission Capacity in MW	28730	30855	32725
Net ARR - (A)	5304.86	6119.31	7045.96
Add: Gap of 2020-21 – (B)	179.18	-	-
ARR Approved, but not recovered through Tariff from 01.04.2020 to 31.10.2020 (C)	377.82	-	-
Add: Amortized Regulatory Assets as per KERC Order Dated:19.10.2020 (D)	331.41	331.41	331.41
Total Revenue Requirement (A+B+C+D)	6193.27	6450.72	7377.37
<b>Transmission Tariff (in Rs./MW/Month)</b>	<b>179640</b>	<b>174221</b>	<b>187863</b>



Based on the above transmission tariff, KPTCL in its filing has proposed the following transmission charges to be collected from the ESCOMs during the Sixth Control Period FY23-25.

**TABLE – 6.3****ESCOM-Wise Proposed Transmission charges – KPTCL's Submission**

Company	2022-23		2023-24		2024-25	
	Transmission Capacity in MW	Transmission Charges - Rs. Crores	Transmission Capacity in MW	Transmission Charges - Rs. Crores	Transmission Capacity in MW	Transmission Charges - Rs. Crores
BESCOM	14361	257.98	15891	276.86	16698.5	313.70
MESCOM	2210	39.70	2210	38.50	2210	41.52
CESC	3102	55.72	3357	58.49	3654.5	68.65
HESCOM	5657	101.62	5827	101.52	6422	120.65
GESCOM	3400	61.08	3570	62.20	3740	70.26
<b>TOTAL</b>	<b>28730</b>	<b>516.11</b>	<b>30855</b>	<b>537.56</b>	<b>32725</b>	<b>614.78</b>

**6.1 Commission's Analysis and Decision:**

The Commission in its preliminary observations, had observed that KPTCL, in its ARR filing for FY23 to FY25 has projected the Transmission capacity of each ESCOMs and total Transmission Capacity to recover the approved revenue from the ESCOMs as mentioned below:

Financial Year	Transmission Capacity
FY21	24438
FY22	27328
FY23	28730
FY24	30855
FY25	32725

KPTCL was directed to submit the details for the ESCOM-wise capacity to be added during each year, based on the capital programme envisaged.

KPTCL in its reply, has submitted the details for the ESCOM-wise transmission capacity to be added during each year as shown below:

Sl. No.	Name of ESCOM	FY 21-22	FY 22-23	FY 23-24	FY 24-25
1	BESCOM	2040	255	1530	807.5
2	MESCOM	0	255	0	0
3	CESC	255	85	255	297.5
4	HESCOM	425	467.5	170	595
5	GESCOM	170	340	170	170
<b>Total</b>		<b>2890</b>	<b>1402.5</b>	<b>2125</b>	<b>1870</b>

The Commission has taken note of the reply submitted by KPTCL.

The Commission also notes that the total projected transmission capacity of 28730 MW, 30855 MW and 32725 MW for FY23, FY24 and FY25 respectively is on a higher side, considering the actual transmission capacity added during the previous years. Accordingly, the Commission, considering the actual transmission capacity addition in the previous years and the KPTCL's proposals to undertake various capital works during the ensuing control period, has arrived at transmission capacity which is likely to be added during the sixth control period. Thus, the ESCOM-wise approved transmission capacity in MW for the control period FY23-25 is as follows:

**TABLE – 6.4**  
**Approved Transmission capacity in MW**

Particulars	Capacity Allocation in MW FY23	Capacity Allocation in MW FY24	Capacity Allocation in MW FY25
BESCOM	12673	13373	14123
MESCOM	1885	1935	1985
CESC	2750	2800	2850
HESCOM	4725	4875	5025
GESCOM	3020	3120	3220
<b>TOTAL (MW)</b>	<b>25053</b>	<b>26103</b>	<b>27203</b>

As per the approved ARR, as discussed in the preceding Chapter, the allocation of the Transmission charges, based on the ESCOM-wise Transmission capacity for the control period, is as follows:

TABLE – 6.5

## Approved Transmission Charges payable by ESCOMs for FY23

Particulars	Capacity Allocation in MW	Transmission charges for FY23 - Rs. Crores per annum	Transmission charges for FY23 - Rs. Crores per Month
BESCOM	12673	2576.672	214.72
MESCOM	1885	383.258	31.94
CESC	2750	559.129	46.59
HESCOM	4725	960.686	80.06
GESCOM	3020	614.026	51.17
<b>TOTAL (MW)</b>	<b>25053</b>	<b>5093.771</b>	<b>424.48</b>

TABLE – 6.6

## Approved Transmission Charges payable by ESCOMs for FY24

Particulars	Capacity Allocation in MW	Transmission charges for FY24 Rs. Crores per annum	Transmission charges for FY24 Rs. Crores per Month
BESCOM	13373	2774.577	231.21
MESCOM	1935	401.466	33.46
CESC	2800	580.933	48.41
HESCOM	4875	1011.446	84.29
GESCOM	3120	647.325	53.94
<b>TOTAL (MW)</b>	<b>26103</b>	<b>5415.747</b>	<b>451.31</b>

TABLE – 6.7

## Approved Transmission Charges payable by ESCOMs for FY25

Particulars	Capacity Allocation in MW	Transmission charges for FY25 Rs. Crores per annum	Transmission charges for FY25 Rs. Crores per Month
BESCOM	14123	3013.159	251.10
MESCOM	1985	423.502	35.29
CESC	2850	608.051	50.67
HESCOM	5025	1072.090	89.34
GESCOM	3220	686.991	57.25
<b>TOTAL (MW)</b>	<b>27203</b>	<b>5803.792</b>	<b>483.65</b>

The monthly Transmission charges payable for the control period FY23-25 are as follows:

**TABLE – 6.8****Approved monthly transmission charges/MW/Month for FY23-25**

Year	Transmission Charges
<b>FY23</b>	Rs. 169433 per MW/Month
<b>FY24</b>	Rs. 172897 per MW/Month
<b>FY25</b>	Rs. 177793 per MW/Month

The transmission tariff determined shall be applicable to all the ESCOMs and shall also apply to all long-term open access customers excluding Renewable energy sources based generators, who generate and supply electricity, within the State (Intra-State) and are not availing the REC benefit. Such renewable energy generators shall continue to pay charges as per the appropriate Orders of the Commission.

The charges determined above are applicable for use of the Transmission System only. In case the Open Access customers use the networks of ESCOMs in addition to the transmission system, the wheeling charges payable would be as determined by the Commission in the respective Tariff Orders of the ESCOMs.

## 6.2 Transmission Charges for Short Term Open Access (STOA) Customers for FY23-25

KPTCL in their tariff filing has proposed the STOA charges in Rs./MWh basis as under:

**TABLE – 6.9**

**Proposed transmission charges payable by  
STOA customers in Rs./MWh**

Year	25% of Proposed ARR	Energy of IF Points in Mus	Transmission Charges in Rs./Mwh.
<b>FY23</b>	1326.21	69136.77	191.82
<b>FY24</b>	1529.82	71401.72	214.25
<b>FY25</b>	1761.49	73785.31	238.73

The Commission notes that, as per the prevailing Regulations the STOA charges are in Rs./MW and therefore, cannot consider the proposal of KPTCL. KPTCL may file suitable proposal separately for amendment of the MYT Regulation.

In accordance with the KERC (Terms and Conditions of Open Access) Regulations 2004 and the KERC (Terms and Conditions for Transmission Tariff) Regulations, 2006, the transmission charges for short term open access consumers for FY23, FY24 and FY25 are indicated as follows:

**TABLE – 6.10**  
**Approved transmission charges for Short Term**  
**Open Access consumers for FY23-25**

Duration of Open Access	Transmission Charges (Rs/MW) FY23	SLDC Charges Rs./MW/Day FY23	Transmission Charges (Rs/MW) FY24	SLDC Charges Rs./MW/Day FY24	Transmission Charges (Rs/MW) FY25	SLDC Charges Rs./MW/Day FY25
More than 12 hrs. & upto 24 hrs. in a day in one block	1392.60	36.07	1421.07	33.61	1461.31	34.87
More than 6 hrs. & upto 12 hrs. in a day in one block	696.30		710.53		730.65	
Upto 6 hrs. in a day in one block	348.15		355.27		365.33	

The Commission opines that, apart from the ESCOMs, the open access consumers, which includes Generators/Traders/Licensee who are using /intend to use the KPTCL transmission network, thereby availing the services of the SLDC should also bear the expenses incurred by the SLDC.

Based on the total transmission capacity for which the approval/ NOC is issued and the allowable SLDC expenses for FY23-25, the Commission decides to allow the SLDC to collect Rs.36.07 per MW per day, Rs.33.61 per MW per day and Rs.34.87 per MW per day for FY23, FY24 and FY25 respectively, for all the open access transactions including long term RE based wind and mini Hydel open access customers during the control period FY23-25. This is apart from the transmission charges payable to KPTCL, as applicable.

As determined above, the transmission charges of Rs.1,69,433 per MW per month, Rs.1,72,897 per MW per month and Rs.1,77,793 per MW per month shall be applicable for all long term open access consumers, respectively for FY23, FY24 and FY25.

**Commission's Order:**

- 1. In exercise of the powers conferred on the Commission under Sections 62 and 64 and other provisions of the Electricity Act, 2003, the Commission hereby approves the revised ARR as per Annual Performance Review for FY21 and determines and notifies the Annual Revenue Requirement and Transmission tariff of KPTCL for FY23-25 as approved in Chapter-6 of this Order**
- 2. The tariff determined in this order shall come into effect from 1<sup>st</sup> April, 2022.**
- 3. This Order is signed dated and issued by the Karnataka Electricity Regulatory Commission at Bengaluru, this day, the 4<sup>th</sup> of April, 2022.**

**Sd/-  
(H.M. Manjunatha)  
Officiating Chairman**

**Sd/-  
(M.D.Ravi)  
Member**

## APPENDIX

### COMMISSION'S DIRECTIVES AND COMPLIANCE BY THE KPTCL

#### New Directives:

#### 1. Issue of Evacuation Clearance by KPTCL:

The Commission has come across several cases of delay in evacuation clearance being issued by the KPTCL to the generators. As a result, many generators have filed petitions before this Commission for extension of time for commissioning of their generating plants under force majeure conditions. When the Commission has not allowed the same, appeals were preferred by them before the Hon'ble ATE and have succeeded in getting favourable orders to give extension of time and to allow higher tariff. Thus, due to delay in giving clearances, the generators have to be paid a higher tariff resulting in increase in power purchase cost affecting the consumers in the retail supply tariff.

**Hence, the Commission hereby directs KPTCL to evolve a definite time frame for clearing the evacuation requests by fixing timelines at different stages of giving officers/officials for the delay so as to ensure that the evacuation clearance is given within a reasonable time and avoid delays and consequent litigations in the matter.**

**Compliance of this Directive may be reported within two months from the date of issue of this Tariff Order.**

#### 2. Issue of No Objections Certificates(NOC) for Wheeling and Banking facility to Open Access Consumers/ Captive generators:

The Commission has observed that in the matter of issue of No Objections Certificates(NOC) for Wheeling and Banking facility to Open Access Consumers/ Captive generators, the KPTCL/SLDC/ ESCOMs are not adhering to the time frame prescribed by the Commission as per the KERC (Open Access)

Regulations, 2004, as amended from time to time. As a result of the delay, substantial quantum of energy is being wheeled/ banked to the transmission/ distribution network under the provisions of 'deemed approval for the W & B facility'. The energy so wheeled/ banked remains unpaid and the generators are made to indefinitely wait for payment and ultimately they are filing petitions before this Commission for settlement of their claims.

Since the energy is wheeled/ banked from RE sources which are having must run status, any delay in giving NOC for wheeling / banking facility or non-payment of the charges for the deemed approved W & B is not justifiable. Whereas, timely action in clearing NOC for W & B facility would avoid all the complications/ litigations in the matter.

**The KPTCL, SLDC and ESCOMs are therefore directed to strictly adhere to the timelines fixed by the Commission as per the OA Regulations. For this purpose, they shall define the responsibility centres and fix definite timelines at each of the processing stage and ensure that the W & B applications are disposed of within the prescribed timeframe. They shall fix up personal responsibility on the concerned officials for avoidable delay in giving the NOC.**

**Compliance of this Directive may be reported within two months from the date of issue of this Tariff Order**



**Existing Directives:**

The Commission, in its Tariff Order dated 9<sup>th</sup> June 2021, and the earlier Tariff Orders, has issued several Directives. The Commission has been reviewing the compliance thereof, on a regular basis. In the present proceedings also, the Commission has reviewed the compliance to the Directives. The Commission besides reviewing the existing directives, decides to elaborate and clarify them for continued compliance. The same are discussed below:

**1) Reactive Power compensation and restoration of failed Capacitors**

The Commission in its Tariff Order dated 4<sup>th</sup> November, 2020, had directed KPTCL to:

- a. restore any failed capacitors timely; and
- b. Regularly submit the monthly status report of capacitor banks duly furnishing the following details:
  - i. Reactive energy charges paid to the CTU every month; and
  - ii. Action plan for restoring the remaining failed capacitors.

**Compliance of Directive by the KPTCL:**

KPTCL, in its Petition, has submitted that it is submitting monthly status report of capacitor banks periodically to the Commission. Further, the Chief Engineers of the Transmission Zone are taking timely action to restore the failed capacitors, as and when they fail. KPTCL has also informed that it has submitted the status of Capacitor Banks as on September 2021 to the Commission vide its letter dated 15.11.2021. Further, in accordance with the directions of the Commission, KPTCL has also furnished the details of Reactive Energy Charges during the FY21 to the Commission vide its letter dated 15.11.2021.

**Commission's Views:**

The Commission, in its preliminary observation, has observed that 1798 number of capacitor banks are installed at the end of September, 2021 whereas, the number of capacitors working at the end of the month are 1700. The Commission also observed that 13 capacitor banks failed during the month

whereas only 10 capacitor banks were restored during the month. Further, total installed capacity at the end of the month is 8544.68 MVar, whereas total working capacity at the end of the month is 7283.34 MVar which amounts to 85.24% of the total installed capacity.

Accordingly, KPTCL was directed to submit the following details:

- a. Average number of days taken for replacement of faulty capacitors;
- b. Average percentage of spare capacitor of each type in terms of physical dimension and rating together with associated equipment/components of capacitor bank available for replacement of failed capacitors.
- c. Action plan for restoring the remaining failed capacitors;

KPTCL in its reply to the Preliminary observations, had submitted the following:

- a. Depending upon the availability of the materials, minimum of 3 days to maximum of 2 months is taken to restore the faulty capacitor banks. Higher numbers of days are required in cases where the spares are required to be procured through tendering.
- b. Procurement of Spares is being done in O/o. CEE/SEE/EE within their power of delegation, since capacitor cells of same dimension, rating, make & type are to be procured for matching the existing ones.
- c. As at the end of November 2021, total 89 numbers of capacitor banks are out of service. The respective Transmission Zones, have initiated necessary action to restore the capacitor banks at the earliest. The action plan has been drawn to rectify the 89 numbers of the failed capacitor banks in the next three months.

The Commission notes the reply furnished by KPTCL. It is to be noted that capacitors help in effective reactive power management in an electrical system. Thus, for effective reactive power management and to save KPTCL from paying reactive energy charges, it is very important that KPTCL should maintain its capacitor banks in a healthy condition and restore the failed capacitors as and when they fail so as to put them back to service quickly. Keeping the capacitors in working condition results in improvement in bus voltages, reduction of transmission losses and minimize/avoid payment of

reactive energy charges to the CTU. Thus, in order to ensure efficient grid management, it is imperative to provide desired reactive power compensation in the transmission network by installing adequate capacitor banks into the system. KPTCL in accordance with the Commission's earlier Orders, is submitting month-wise details of status of capacitor banks regularly to the Commission. The Commission also notes that KPTCL has not paid any amount to PGCIL towards reactive energy charges, instead it has received Rs.11,91,36,245 towards reactive energy charges from PGCIL for FY21. The Commission further notes that failing of capacitors and restoration of failed capacitors is a continuous process and KPTCL is taking measures to restore the failed capacitors in its transmission network and is installing additional capacity of capacitor banks to achieve the desired reactive compensation in the transmission network for ensuring efficient grid management. Nevertheless, the Commission reiterates that the KPTCL shall:

- a. Restore any failed capacitors by taking timely action; and
- b. Regularly submit the monthly status report of capacitor banks duly furnishing the following details:
  - i. Reactive energy charges paid to the CTU every month; and
  - ii. Action plan for restoring the remaining failed capacitors.
  - iii. Maintain minimum 5% of spare capacitor of each type in terms of physical dimension and rating together with associated equipment/components of capacitor bank available for replacement of failed capacitors.

## **2) Implementation of Intra State ABT:**

The Commission vide its Order dated 4<sup>th</sup> November, 2020, had directed that KPTCL and ESCOMs shall take necessary measures to achieve full implementation of Intra-State ABT by sorting the issues among KPTCL and ESCOMs and report compliance thereon.

### **Compliance of Directive by the KPTCL:**

KPTCL in its Petition, has submitted that the Commission, during 59<sup>th</sup> Advisory Committee meeting held on 13.01.2020, had directed the Director (Tech.)

KERC, to conduct a meeting with ESCOMs and SLDC to sort out the issues raised by ESCOMs regarding billing methodology under Intra-State ABT. However, the said meeting is yet to take place. Further, during 65<sup>th</sup> meeting of the Advisory Committee, KPCL has agreed to complete the pending works related to ABT metering by December 2021.

### **Commission's Views:**

During 64<sup>th</sup> Advisory Committee Meeting held on 25.06.2021, KPCL had informed the Commission that the date of installation of meters to the hydel stations of KPCL has been postponed to the end of December, 2021 which was earlier scheduled to be completed by March, 2021. The Commission directed KPCL to complete this task at the earliest.

During 65<sup>th</sup> Advisory Committee Meeting held on 27<sup>th</sup> October, 2021, KPCL has ensured that the pending works are expected to be completed by December, 2021.

The Commission notes that a meeting under the chairmanship of Director(Tech.) KERC with ESCOMs and SLDC to sort out the issues raised by ESCOMs regarding billing methodology under Intra-State ABT is yet to take place. As such, the KPTCL, SLDC and ESCOMs are directed to conduct a meeting under the chairmanship of MD KPTCL to try and sort out the issues with regards to billing methodology under Intra-State ABT once KPCL completes installation of ABT meters of its hydel stations so as to find a way out to implement the Intra-State ABT at least by March, 2022.

### **3) Directive on Manpower Studies conducted**

The Commission had directed the KPTCL to have a fresh look into its manpower requirements keeping in view the computerization of its operational and financial activities and also keeping in view the technological advancements and the changed organizational set-up.

The Commission had opined that there is a need to streamline the personnel deployment and career growth to achieve higher employee productivity, accrual of greater benefits to the organisation which would result in reduction

of tariff and hence the burden on the consumers. Any delay in implementation of the study report by KPTCL would lead to inefficient utilization of its human resources. Thereby, the Commission in its earlier Tariff Orders also had directed the KPTCL to complete the manpower studies at the earliest and submit the interim report to the Commission. Also, KPTCL was directed to ensure implementation of a proper manpower planning strategy with a view to ensure optimum use of human resources and to minimize the operational costs and submit a compliance thereon to the Commission.

### **Compliance by KPTCL**

KPTCL has entrusted Human Resource Study to M/s Institute of Social and Economic Change (ISEC), Bengaluru vide work award dated 23.09.2021. The Agency has been directed to submit the final report within six months from the date of Award. Based on the study report, KPTCL would draw up an action plan for implementation of the same.

### **Commission's views**

The Commission notes that, KPTCL has not taken the directive seriously. KPTCL has been furnishing the status of implementation of Report on the Manpower studies by taking up afresh. The Commission, after going through the compliance submitted in its Tariff Filing that KPTCL has engaged an agency by awarding the work and has directed the agency to submit the report within 6 months of the award date of 23.09.2021. The Commission again opines that; it is absolutely necessary to institute manpower studies to plan for the future in order to efficiently utilize the available manpower with a view to reduce the overall costs.

In this regard, KPTCL is directed to analyse the report by the agency and submit a stringent action plan indicating the implementation strategies along with a comprehensive action plan for implementation without further delay.

**The Commission in its previous Tariff Order has directed KPTCL to circulate the report submitted by the internal committee of KPTCL among all the ESCOMs and**

similar action be taken in all the ESCOMs for streamlining the deployment and career growth in order to achieve higher employee productivity and accrual of greater benefits to the organization which would also reduce the tariff burden on the consumers. Whereas, KPTCL has not mentioned any action taken on the above Directive.

The Commission reiterates that the KPTCL shall ensure proper implementation of the Man Power planning strategy with a view to ensure optimum use of human resources to minimize its operational costs.

#### 4) Directive on prevention of electrical accidents

The Commission had directed the KPTCL to prepare a stringent action plan to effect improvements in transmission network and also implement safety measures to prevent electrical accidents. A detailed Sub-Station Division wise action plan for improvement in the Transmission Lines and reduction in accidents were to be submitted to the Commission.

##### **Compliance by KPTCL**

The Chief Engineers of the transmission zones are regularly carrying out / monitoring works related to rectification of hazardous locations. The zone-wise status of accidents occurred in KPTCL along with details of hazardous locations and an action plan to reduce the same was furnished to the Hon'ble Commission vide letter No. KPTCL / B36 / 1189 / 2021-22 / 1195 dated 15.11.2021.

Further, during the 65<sup>th</sup> Advisory Committee meeting KPTCL appraised the details of accidents and rectification of Hazardous Locations from June 2021 up to September 2021 and informed the Commission that KPTCL has directed all the ESCOMs not to give electricity connection to installations where CEA Safety Regulations are not followed.

In its replies to the preliminary observations, KPTCL has submitted the details of hazardous locations for the period from April 2021 to September 2021 vide Annexure – 9.

KPTCL has informed that, as per the directions of the Hon'ble Commission in 65<sup>th</sup> Advisory Committee meeting, the zonal chief engineers have been directed to draw up an action plan to rectify hazardous locations on top priority. The Chief Engineers have initiated action for preparation of estimates / DPRs and would take up the work immediately.

**Commission's views:**

The Commission notes that, KPTCL vide letter No KPTCL / B36 / 1189 / 2021-22 / 1195 dated 15.11.2021 has furnished the information on the accidents occurred during the 4<sup>th</sup> quarter of FY21 along with the details of hazardous locations identified and rectified during the same period. During this period, the Commission observed that only 3.79% of identified hazardous locations have been rectified.

Further, KPTCL vide letter No KPTCL / B36 / 2021-22 / 26196 / 1203-206 dated 17.11.2021 has furnished the details of the accidents occurred during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of FY21 without furnishing the details of the hazardous locations identified, rectified and balance to be rectified as at the end of the specific quarter. KPTCL was directed to provide the details of accidents, hazardous locations identified, rectified and balance to be rectified for the entire period of FY21.

In the Annexure – 9, it has furnished the details of hazardous locations identified, rectified and balance to be rectified for the period April 2021 to September 2021 only. As per the data, the balance number of hazardous locations identified during this period as 12, rectified as 17 and balance to be rectified is 144.

The Commission observes that, the hazardous locations identified are very less during this period.

The Commission expects KPTCL to speed up the process of identifying and provide strategic action plan to rectify all the hazardous locations within a definite timeframe, in order to prevent electrical accidents.

The Commission notes with displeasure, the casual manner in which KPTCL has furnished the reply in respect of identification and rectification of hazardous locations instead of initiating strategic, stringent action plan to identify and set right the already identified hazardous locations. If KPTCL doesn't initiate stringent action plan to set right the already identified hazardous locations and do not take aggressive steps to identify the hazardous locations, electrical accidents are bound to increase resulting in loss of lives of human beings and livestock besides loss of properties.

Further, KPTCL has not submitted any details of action taken to conduct awareness campaign on electrical safety aspects, including sensitising its field staff so as to sustain its efforts to prevent and minimise accidents.

**Therefore, the Commission reiterates the directive to the KPTCL to speed up the work of identification and rectification of hazardous locations and also to submit a stringent, strategic action plan along with the details of number of locations identified, rectified and the balance number of such locations to prevent electrical accidents in transmission lines and substations quarterly, to the Commission.**