KARNATAKA ELECTRICITY REGULATORY COMMISSION

TARIFF ORDER 2016

ANNUAL PERFORMANCE REVIEW FOR FY15

&

ANNUAL REVENUE REQUIREMENT FOR FY17-19

&

DETERMINATION OF TRANSMISSION TARIFF FOR FY17-19

OF

KPTCL

30th March 2016

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C O N T E N T S

LIST OF TABLES

ABBREVIATIONS	
AAD	Advance Against Depreciation
AEH	All Electric Home
ABT	Availability Based Tariff
A & G	Administrative & General Expenses
ARR	Annual Revenue Requirement
ATE	Appellate Tribunal for Electricity
BBMP	Bruhut Bangalore Mahanagara Palike
BDA	Bangalore Development Authority
BESCOM	Bangalore Electricity Supply Company
BMP	Bangalore Mahanagara Palike
BST	Bulk Supply Tariff
BWSSB	Bangalore Water Supply & Sewerage Board
CAPEX	Capital Expenditure
CCS	Consumer Care Society
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
DCB	Demand Collection & Balance
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
FA	Financial Adviser
FKCCI	Federation of Karnataka Chamber of Commerce & Industry
FR	Feasibility Report
FoR	Forum of Regulators
FY	Financial Year
GESCOM	Gulbarga Electricity Supply Company
GFA	Gross Fixed Assets
GoI	Government Of India
GoK	Government Of Karnataka
GRIDCO	Grid Corporation
HESCOM	Hubli Electricity Supply Company
HP	Horse Power
HRIS	Human Resource Information System
ICAI	Institute of Chartered Accountants of India
IFC	Interest and Finance Charges
IW	Industrial Worker

IP SETS	Irrigation Pump Sets
KASSIA	Karnataka Small Scale Industries Association
KEB	Karnataka Electricity Board
KER Act	Karnataka Electricity Reform Act
KERC	Karnataka Electricity Regulatory Commission
KM/Km	Kilometre
KPCL	Karnataka Power Corporation Limited
KPTCL	Karnataka Power Transmission 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
NLC	Neyveli Lignite Corporation
NCP	Non Coincident Peak
NTP	National Tariff Policy
O&M	Operation & Maintenance
P & L	Profit & Loss Account
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
PRDC	Power Research & Development Consultants
REL	Reliance Energy Limited
R & M	Repairs and Maintenance
ROE	Return on Equity
ROR	Rate of Return
ROW	Right of Way
RPO	Renewable Purchase Obligation
REC	Renewable Energy Certificate
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition System
SERCs	State Electricity Regulatory Commissions
SLDC	State Load Despatch Centre
SRLDC	Southern Regional Load Dispatch Centre
STU	State Transmission Utility
TAC	Technical Advisory Committee

TCC	Total Contracted Capacity
T&D	Transmission & Distribution
TCs	Transformer Centres
TR	Transmission Rate
VVNL	Visvesvaraya Vidyuth Nigama Limited
WPI	Wholesale Price Index
WC	Working Capital

KARNATAKA ELECTRICITY REGULATORY COMMISSION
BENGALURU - 560 001

Dated this 30th day of March, 2016

Order on KPTCL's Annual Performance Review for 15,
Annual Revenue Requirement for FY17-19 and
Determination of Transmission Tariff for FY17-19

In the matter of:

Application of KPTCL in respect of the Annual Performance Review for FY15, Annual Revenue Requirement for FY17-19 and Determination of Transmission Tariff for FY17-19 under Multi Year Tariff framework.

Present:	**Shri M.K. Shankaralinge Gowda**	**Chairman**
	Shri H.D.Arun Kumar	**Member**
	Shri D.B.Manival Raju	**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 has filed its application on 30th November 2015, under the provisions of the KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2006, for the review of its Annual Performance Review for the financial year 2014-15 (FY15) and approval of ARR and determination of transmission tariff for the control period FY17-19.

In exercise of the powers conferred under Sections 62, 64 and other provisions of the Electricity Act, 2003, read with KERC (Terms and conditions for Determination of Transmission Tariff) Regulations 2006, and other enabling Regulations, the Commission has carefully considered the application and the views and objections submitted by the consumers and other stakeholders. The Commission's decisions are given in this order, Chapter wise.

CHAPTER – 1

INTRODUCTION

1.0 About KPTCL:

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

The KPTCL is a registered company under the Companies Act, 1956, incorporated on 28th July, 1999 and having commenced its operations from 1st August, 1999. It continued to perform the functions of Transmission and Distribution utilities, which were carried out by the erstwhile Karnataka Electricity Board (KEB).

The KPTCL became a Transmission Company due to unbundling of Transmission and Distribution business in Karnataka, effective from 1st June, 2002. The Distribution business was vested with newly created Distribution Companies (ESCOMs).

As per the Electricity Act, 2003, the KPTCL became an exclusive wires company, with effect from 10th June, 2005 and its bulk power purchase activity was vested with the newly formed Power Company of Karnataka Ltd., (PCKL).

KPTCL maintains / operates the intrastate transmission system in the State. While also undertaking establishment of new network, the KPTCL is responsible for transmission of power from generating stations to the ESCOMs and to the intra State / inter State open access consumers. The KPTCL operates **1076** sub stations and maintains **33912** circuit kilometers of transmission lines with voltage of 66 KV and above as at the end of January, 2016. The voltage wise sub-stations and transmission lines maintained by the KPTCL are as detailed below.

Type of Substation	Numbers	Transmission line in Ckt.kms
400 kV	4	2683
220 kV	97	10704
110 kV	378	10125
66 kV	597	10400
Total	**1076**	**33912**

Source: *KPTCL website - as on 31.01.2016.*

(*Figures of transmission lines rounded off to nearest integer)*

Area of operation of the KPTCL is divided into 6 Transmission Zones with 15 Circles and 47 Divisions. In addition, there are 32 Transmission lines and Sub-station Divisions (TL&SS) for operation and maintenance of the transmission system and implementation of augmentation works. There are 4 Relay Testing (RT) Circles and 14 RT Divisions responsible for maintenance of protective relays and meters and addressing trouble shooting issues of KPTCL Stations. Further, there are 15 transmission works division which take care of construction activity relating to intrastate transmission system. At the Divisional level, there are 79 accounting units which are responsible for accounting of all transactions of the KPTCL.

1.1 KPTCL at a glance:

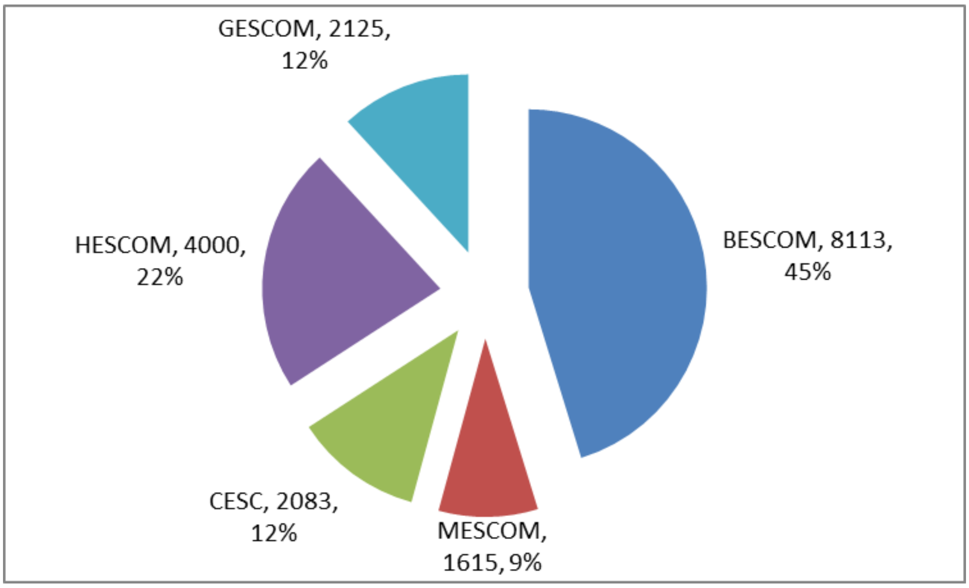
Sl. No	Particulars (As on 31-03-2015)		2014-15
1.	**Generation Capacity (connected to Transmission System)**	MW	**15052**
	a) KPC Hydro and Thermal	MW	6615
	b) CGS (Karnataka Share)	MW	2169
	c) NCE, IPPs and Others	MW	6268
2.	**No. of Receiving Sub-Stations /Length of Tr. Lines (as on 31.03.2015)**	Nos./CKms.	
	a) 400 kV	Nos./CKms.	4/2650
	b) 220 kV	Nos./CKms.	94/10298
	c)110 kV	Nos./CKms.	375/10021
	d)66 kV	Nos./CKms.	585/10235
3.	Assets as at the end of FY15	Rs. in Crores	13122.74
4.	**Total employees:**		
	a) Sanctioned	Nos.	15969
	b) Working	Nos.	10908
5.	Demand Charges for Transmission of Power to ESCOMs (FY15)	Rs. in Crores	2467.41
6.	Collections of transmission charges	Rs. in Crores	2263.35

1.2 Transmission capacity of KPTCL in FY15:

The total transmission capacity in the State was 17,936 MW during FY15.

The ESCOM wise transmission capacity for FY15 is as follows:

ESCOM WISE TRANSMISSION CAPACITY in MW – FY15



Source: *KPTCL Audited Accounts FY15*

CHAPTER – 2
PUBLIC HEARING PROCESS

2.1 BACKGROUND:

The Commission had approved the ARR and transmission tariff for KPTCL for FY15 in its MYT order dated 6th May, 2013. The ARR and Transmission tariff for FY15 was revised as per the Commission's tariff order dated 12th May, 2014. The KPTCL in its application dated 30th November, 2015, has sought approval for the Annual Performance Review for FY15, approval of ARR for FY17-19 and determination of Transmission Tariff for FY17-19.

2.2 Commission's Directives & Compliance by KPTCL:

The Commission, in its tariff order dated 2nd March, 2015, 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 directions in a time bound manner.

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

2.3 Public hearing process

On receipt of the application of the KPTCL dated 30th November, 2015, the Commission conveyed its preliminary observations on the application on 15th December, 2015. The KPTCL has furnished its replies on 28th December, 2015.

The Commission in its letter dated 14th January, 2016, has treated the application of the KPTCL as petition in terms of the Tariff Regulations subject to further verification and validation. Accordingly, KPTCL was directed to publish a summary of the application in the news papers within a week in accordance with the Clause 5(1) of the KERC (Tariff) Regulations, 2000, as amended on 1st February, 2012.

In compliance with the above directions of the Commission, the KPTCL has published the summary of its application in the following newspapers on 18th & 19th January, 2016.

- The Hindu
- Deccan Herald
- Prajavani
- Udayavani

The KPTCL's ERC and the Tariff Application were also made available on the web-sites of the KPTCL & the KERC. In response to notices published in the above newspapers, calling for objections on the APR for FY15, ARR for FY17-19 and revision of transmission tariff of the KPTCL for FY17, the Commission has received 3 written objections.

The Commission held a Public Hearing on 26th February, 2016 in the Court Hall of its Office. Objections raised and the responses from the KPTCL thereon, are discussed in Chapter – 3 of this order.

2.4 Consultation with Advisory Committee of the Commission

A meeting of the Advisory Committee of the Commission was held on 10.03.2016. The members of the Committee discussed the various issues involved in the application of the KPTCL and offered valuable suggestions. These suggestions have been taken note of by the Commission 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 undertook the process of public consultation in order to obtain suggestions / views / objections from the interested stake-holders on the Application for APR for FY15 and ERC, ARR and Transmission Tariff Application for FY17, FY18 and FY19 under MYT Principles filed by KPTCL. In the written submissions as well as during the public hearing, some of the Stake-holders and public have raised objections to the Application filed by KPTCL. The names of the persons who filed written objections and made oral submissions are given below:

List of persons who filed written objections:-

Sl.No	Application No.	Name & Address of Objectors
1	KB -01	Director Finance, BESCOM
2	KA-01	Sri. K.B.Arasappa, Hon. Gen. Secretary, KASSIA, Bengaluru.
3	KA-02	Sri Lokaraj, Secretary, Federation of Karnataka Chambers of Commerce and Industry, Bengaluru.

List of the persons, who made oral submissions during the Public Hearing, held on 26.02.2016.

SL.No	Names & Addresses of Objectors
1	Sri A. Raja Rao & M.L. Ashok, Consumer Care Society, Bengaluru.
2	Sri Mallappa Gowda & Sri Ramakrishna, KASSIA, Bengaluru.
3	Sri Raghavendra Prasad, Advocate & M.G. Prabhakar, FKCCI, Bengaluru.
4	Sri Manjunath & Venkatesh, Bharatiya Kissan Sangha, Anekal.

3.2 The gist of the objections, replies by KPTCL and the Commission's Views are appended to this order as **Appendix-1**

CHAPTER – 4
ANNUAL PERFORMANCE REVIEW FOR FY15

4.0 *KPTCL's application for APR for FY15:*

The KPTCL, in its application dated 30th November, 2015, has requested for taking up its Annual Performance Review (APR) for the FY15 based on its Audited Accounts.

The Commission, in its tariff order dated 12th May, 2014, had approved the revised Annual Revenue Requirement (ARR) and Transmission tariff for the FY15. In this Chapter, the Commission has taken up the Annual Performance Review for the FY15 based on the Audited Accounts filed by the KPTCL as discussed below:

4.1 *KPTCL's Submission:*

The KPTCL has submitted its proposal for consideration during APR for the FY15, as follows:

TABLE – 4.1

KPTCL's filing – APR FY15

Amount in Rs. Crores

Sl. No	Particulars	As Approved – T.O. dated 12.05.2014	As per Filing
	Revenue	**2196.95**	**2263.35**
	Expenditure		
1	O&M Expenses	776.58	992.33
2	Depreciation	607.81	590.93
3	Interest & Finance Charges	670.70	525.39
4	Interest on working capital	67.35	0.00
5	RoE	498.05	386.84
6	Provision for taxation	0.00	21.86
7	Other Debits	0.00	12.87
8	Extraordinary items	0.00	96.01
9	Net Prior Period Charges		55.00
	Less		
10	SLDC charges	0.77	0.22
11	Interest & Finance Charges capitalized	101.60	38.71
12	Other Expenses capitalized	37.43	42.46

13	Other Income	117.00	132.43
14	Carry forward surplus of FY13 as per APR	166.74	0.00
	NET ARR	**2196.95**	**2467.41**
	Gap	**0.00**	**(204.06)**

The KPTCL has reported a deficit of Rs.204.06 Crores for the FY15. It has proposed to carry forward this gap to the ARR for FY17.

4.2 KPTCL's Financial Performance as per Audited Accounts for the FY15:

The overview of the financial performance of KPTCL for the FY15, as per its Audited Accounts, is as follows:

TABLE – 4.2
Financial Performance of the KPTCL – FY15

Amount in Rs. Crores

Sl. No	Particulars	FY15
	Revenue (including other income)	**2395.80**
	Expenditure	
1	O&M Expenses	992.34
2	Depreciation	591.19
3	Interest & Finance Charges	525.39
4	Current tax	21.86
5	Other Debits	114.49
6	Extraordinary items	96.01
7	Transmission and wheeling charges	1.77
8	Net Prior Period Charges	55.00
	Less	
9	Interest and Finance charges capitalized	38.71
10	Other expenses capitalised	42.71
	Total Expenditure	**2316.63**
	Profit for the Year	**79.17**

As per the Audited Accounts, the KPTCL has earned profit of Rs.79.17 Crores for the FY15. Considering the surplus earned by the Company in the previous years, the cumulative surplus is Rs.399.35 Crores (inclusive of profit in the FY15).

4.3 Annual Performance Review for FY15:

The Annual Performance Review for the FY15 has been taken up duly considering the actual expenses as per the Audited Accounts, against the expenses approved by the Commission in its tariff order dated 12th May, 2014.

The Commission, in accordance with the provisions of the KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006 and amendment notified on 1st February, 2012 has taken up the Annual Performance Review of the KPTCL for the FY15. The item wise review of expenditure and the decisions of the Commission thereon are discussed in the following paragraphs:

i) Transmission Losses for FY15:

The Commission had approved the annual average transmission loss of 3.92% for the FY15. The KPTCL, in its filing, has reported the transmission loss of 3.667%.

The Commission in its tariff order dated 6th May, 2013, had fixed the target transmission losses of 3.92% for the FY15 on the basis of the methodology suggested by the KPTCL, wherein the energy input from generation bus into the KPTCL grid is deducted from the total energy at interface points of the ESCOMs, to arrive at the transmission losses in KPTCL system.

The actual transmission losses of 3.667% reported by the KPTCL are based on the input energy and energy supplied at interface points of the KPTCL transmission system exclusively. Since the actual transmission losses are less than the lower limit of the approved range of transmission losses (3.82% to 4.02%) for the FY15, the Commission decides to allow incentive on such lower actual transmission losses for the FY15 as detailed below:

TABLE – 4.3

Incentive for reduction in transmission losses in FY15

Particulars	FY15
1% of RoE (Rs. Crs.)	3.60

Lower level of approved Tr.Losses in %	3.82
Actual Transmission Losses	3.67
Decrease in loss level beyond targeted lower band	0.15
Incentive for reduction in Transmission losses - Rs. Crs	1.08
50% to be shared with the ESCOMs and balance to be retained by KPTCL - Rs. Crs.	**0.54**

ii) System Availability:

KPTCL's Submission:-

The transmission system availability as submitted by the KPTCL for the FY15, is as follows:

TABLE – 4.4

System Availability – FY15

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	% System Availability for the system
Bagalkote Zone	356	98.61%	510	99.90%		0.00%	**99.37%**
Bengaluru Zone	357	99.88%	555	99.08%	4	100.00%	**99.39%**
Kalaburagi Zone	265	99.68%	341	99.82%	0	0.00%	**99.76%**
Hassan Zone	198	99.12%	292	99.90%	0	0.00%	**99.58%**
Mysuru Zone	149	99.96%	247	99.94%	0	0.00%	**99.95%**
Tumakuru Zone	105	99.73%	368	99.93%	0	0.00%	**99.89%**
TOTAL	**1430**	**99.32%**	**2313**	**99.61%**	**4**	**100.00%**	**99.50%**

Commission's Analysis:

The Commission has forwarded the transmission system availability submitted by the KPTCL to all the ESCOMs for their view/comments. While the CESC and the HESCOM have concurred with the transmission availability the other ESCOMs have not furnished comments.

The Commission has verified the system availability data and found certain inconsistencies like, repeated entry of same transmission lines, incorrect names of the substations and low availability shown in respect of some of the elements. The observations were forwarded to the KPTCL with direction to submit revised computation of transmission system availability, after complying with the observations. The KPTCL has resubmitted the revised availability computation, after incorporating Commission's observations and confirmed the transmission availability at 99.50%. Based on the revised computation, the Commission has considered the availability at 99.50%.

iii) Incentive for Transmission System Availability:

As per the provisions of the Regulation 3.17(1) of 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 actual availability at 99.50% for the FY15 and the net ARR, after APR at Rs.2527.64 Crores (as indicated later in this order), the allowable incentive for the FY15 is as detailed below:

TABLE – 4.5

Incentive for better Transmission System Availability

Particulars	FY15
System Target Availability	98%
Actual System Availability for the FY15	99.50%
No incentive allowed beyond 99.75% as per MYT Regulations	99.75%
Availability beyond target levels	1.50%
Incentives for Availability beyond target levels linked to approved ARR in Rs. Crs	38.69
50% to be shared with the ESCOMs and balance to be retained by KPTCL Rs. Crs	**19.34**

Thus, the total incentive earned by the KPTCL on account of transmission loss reduction and better system availability for the FY15 is Rs.39.77 Crores.

The Commission decides to allow sharing of these gains with ESCOMs in the ratio of 50:50 and hence directs the KPTCL to recover Rs.19.88 Crores from the ESCOMs in proportion to the transmission capacity allocated for the FY15.

iv) Operation and Maintenance Expenses:

KPTCL's Submission:

The actual O&M Expenses reported by the KPTCL is Rs.992.33 Crores (excluding SLDC Charges & Other expenses shared by ESCOMs). This includes Employee costs of Rs.790.19 Crores, Administrative & General Expenses of Rs.64.75 Crores and Repairs & Maintenance expenses of Rs.137.39 Crores. The Commission in its Tariff Order dated 6th May, 2013, had approved O&M Expenses of Rs.776.58 Crores inclusive of additional O & M expenses of Rs.147.07 Crores on account of P&G contribution for FY15. The actual O&M Expenses are more than the approved expenses by Rs.215.75 Crores.

The KPTCL in its application has requested the Commission to approve O & M expenses as per actuals as the normative O & M expenses is less as compared to actual expenditure. Further, the KPTCL has stated that the CERC norms allows O&M expenses of Rs.62.30 lakhs / bay for 400 kV bays, Rs.43.61 lakhs / bay for 220 kV bays and Rs.31.15 lakhs / bay for 132 kV and below as compared to the KERC norms of Rs.0.96 lakhs / bay.

The KPTCL also, has stated that it had filed review petition RP 05 of 2013 and RP06 of 2014, before the Commission which are yet to be decided.

The KPTCL has furnished the statement of O & M expenses filed and approved by 10 other States for the period from 2010-11 to 2014-15. The KPTCL has requested to consider the methodology adopted in the States of Gujarat and Haryana as these States operate 66 KV transmission system similar to Karnataka. It has further requested to allow O & M expenses as per the audited accounts by treating employee cost as uncontrollable expenses and consider allowing each component of O & M expenses separately.

Further, KPTCL has submitted the breakup of O&M expenses for transmission lines and bays wherein major cost is incurred towards maintenance of bays as compared to the cost incurred on maintenance of lines.

Commission's Analysis and decisions:

The normative O & M expenses are determined based on the actual O & M expenses incurred by the KPTCL, actual number of Bays and Circuit Kilometers of transmission lines in the KPTCL and the actual inflation rate for the year.

In Multi-year Tariff approach, the values of the base year of the Control period are being determined based on the latest audited accounts available, best estimates for the relevant years and other factors considered appropriate by the Commission, and after applying the tests for determining the controllable and uncontrollable nature of various items (Clause 2.5.1 of the MYT Regulations).

The normative O & M expenses have been computed based on the actual O & M expenses of the base year (FY11 - FY13), number of Bays, and Circuit Kilometers of transmission lines by applying the inflation factor for the relevant years. The Commission has been consistently adopting this approach to work out the O & M expenses, as provided for in the MYT Regulations, besides allowing additional employee cost treated as uncontrollable O & M cost.

The Commission in its Tariff Order dated 6th May, 2013, had considered 20239 No of Bays and 32689 Ckt. Kms of transmission Lines as projected by the KPTCL for the FY15. Now, as per the actual data reported by the KPTCL, the No. of Bays is 20247 and the length of transmission lines is 33204 Ckt. Kms. as detailed below:

Voltage class	**Transmission lines (in Circuit kms as on 31.03.2015)**
400 KV	2650
220 KV	10298
110 KV	10021
66 KV	10235
TOTAL	**33204**

Type of Bay	**Nos. as on 31.03.2015**
Line Bay	5136
Transformer bay	2290

PT Bay	1474
Capacitor Bank Bay	823
11 KV Bay	10524
Total	**20247**

As in the earlier Tariff Order dated 2nd March, 2015, the Commission decides to continue 80% weightage to CPI and 20% weightage to WPI for computing composite inflation index. Considering this composite inflation index, the Commission has computed the inflation factor based on the similar methodology adopted by the CERC in its orders on escalation rates issued from time to time, as shown below:

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2003	92.6	107	104.12				
2004	98.72	111.1	108.624	1.04	0.04	1	0.04
2005	103.37	115.8	113.314	1.09	0.08	2	0.17
2006	109.59	122.9	120.238	1.15	0.14	3	0.43
2007	114.94	130.8	127.628	1.23	0.20	4	0.81
2008	124.92	141.7	138.344	1.33	0.28	5	1.42
2009	127.86	157.1	151.252	1.45	0.37	6	2.24
2010	140.08	175.9	168.736	1.62	0.48	7	3.38
2011	153.35	191.5	183.87	1.77	0.57	8	4.55
2012	164.93	209.3	200.426	1.92	0.65	9	5.89
2013	175.35	232.2	220.83	2.12	0.75	10	7.52
2014	182	246.9	233.92	2.25	0.81	11	8.90
A= Sum of the product column							35.36
B= 6 Times of A							212.19
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							0.0724
e=Annual Escalation Rate (%)=g*100							**7.24**

Considering the inflation rate of 7.24%, the normative O & M expenses for the FY15 will be as follows:

TABLE – 4.6
Approved Normative O & M Expenses – FY15

Particulars	FY15
O&M cost in terms Rs. thousands/Bay	104.73
O&M cost in terms Rs. thousands/ckt.Km of Line	146.16
Inflation rate in %	7.24

No. of Bays	20247
Length of Line in ckt.Kms	33204
O&M Expenses for Bays (Rs.Crs)	212.04
O&M Expenses for Lines (Rs.Crs)	485.31
TOTAL O&M Expenses as per Norms (Rs.Crs)	**697.35**

The Commission in its tariff order dated 6th May, 2013, while approving the O & M expenses for the FY15 had considered an amount of Rs.147.07 Crores towards contribution to Pension and Gratuity Fund. These additional expenses were treated as uncontrollable O & M expenses besides the normative O & M expenses which are treated as controllable O&M expenses.

As per the audited accounts for the FY15, the KPTCL has incurred Rs.164.01 Crores towards provision for leave encashment and Rs.126.33 Crores towards P&G contribution.

The Commission notes that, the KPTCL is incurring higher employee cost on account of contribution to the P&G Trust and making provisions for leave encashment annually in addition to the normal employee cost. which is inclusive of basic pay, dearness allowance and HRA. Considering, the plea of the KPTCL that the O & M expenses as per norms are not sufficient to meet the actual O & M expenses incurred, the Commission decides to allow contribution to P&G Trust and the leave encashment as uncontrollable O&M expenses. This component will be allowed in addition to the controllable normative O&M expenses to enable the KPTCL to meet its O&M expenses.

The O& M expenses on account of additional employee costs incurred by the KPTCL due to Pension & Gratuity Contribution (as per the existing approved actuarial valuation report) and leave encashment are treated as uncontrollable O & M expenses as follows:

TABLE – 4.7

Approved Additional Employee Cost (Uncontrollable O&M Expenses)

Particulars	Amount in Rs. Crs.
P&G Contribution for FY15	126.33
Provisions for earned leave encashment	164.01
Total Uncontrollable O&M Expenses -FY15	**290.34**

The comparison of the O & M expenses allowed by the CERC to the PGCIL and the O & M expenses being allowed by the KERC for the KPTCL may not be relevant as the KPTCL is claiming O & M expenses on all the bays from 400 kV to 11 kV voltage levels. The O & M expenses in most of the States are being approved on normative basis as these expenses are considered as controllable expenses linked to efficiency of operation and maintenance. As such there is a need for the KPTCL to initiate measures for increase in productivity / efficiency of operation by reducing the O & M expenses besides achieving reduction of transmission losses and increase in system availability.

Based on the above discussions, the O & M expenses for the FY15 are as follows:

TABLE – 4.8

Approved Allowable O & M expenses for FY15

Amount in Rs.Crores

Particulars	FY15
Total normative O&M Expenses	697.35
Additional employee cost	290.34
Total O&M Expenses allowable in Rs.Crs.	**987.69**

Thus, the Commission decides to allow O & M expenses of Rs.987.69 Crores for the FY15.

v) Depreciation:

The KPTCL, in its audited accounts, has indicated an amount of Rs.590.93 Crores towards depreciation after capitalisation of Rs.0.25 Crores for the FY15. The Commission, in its tariff order dated 6th May, 2013, had approved an amount of Rs.607.81 Crores. As such the actual depreciation is lower by Rs.16.88 Crores.

The allowable depreciation has been determined by the Commission in accordance with the KERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006 as amended on 1st February, 2012. Considering the actual average gross block of fixed assets for the FY15, the depreciation of Rs.591.18 Crores as per audited accounts works out to weighted average rate of 4.45%. The capitalized amount of depreciation of Rs.0.25 Crores has been factored in other expenses capitalized as discussed in subsequent paragraphs of this Chapter. After excluding withdrawal of depreciation of Rs.40.46 Crores (Rs.28.34 Crores for the FY15 and Rs.12.12 Crores for prior period accounted in the FY15) towards assets created out of consumer contribution and grants, the net depreciation for FY15 is Rs.550.72 Crores.

The KPTCL in its filing has stated that an amount of Rs.0.22 Crores has been accounted as depreciation on assets of SLDC for the FY15. The same has been deducted while determining the allowable depreciation for FY15.

Thus, the Commission decides to consider depreciation of Rs.550.50 Crores for the FY15.

vi) Capital Investment for the FY15:

As per the application of APR, the KPTCL has incurred capital expenditure of Rs.754.25 Crores for the FY15 (format T17), against the approved capex of Rs.1400 Crores. The KPTCL has furnished breakup of the capital expenditure for different categories for Rs.835.66 Crores, which includes the interest and finance charges and other expenses capitalized during the FY15. The addition of assets during the FY15, is stated to be Rs.951.45 Crores (Rs.471.63 Crores against Plant; Rs.425.04 Crores against Machinery and pertains to Towers, line and cables). The breakup of the approved capital investment against the achievement for the FY15 is as follows:

TABLE – 4.9

Capital Expenditure -Approved Vs Actuals for FY15

Amount in Rs. Crores

Classification of Work	Approved capex	Budget allocation by KPTCL for FY15	Physical Progress (No.of works)	Financial Progress for FY15
Additional loads	601.25	71.79	135	89.52
Voltage improvement	48.81	371.29	147	343.80
Evacuation of power from new generating stations	488.22	179.69	7	167.09
Strengthening of existing system	261.72	155.15	77	161.61
General Capital works	-	622.08	….	73.64
TOTAL	**1400**	**1400.00**	**366**	**835.66**

The KPTCL had proposed capex of Rs.601.25 Crores towards investment on catering to additional load, but has allocated a meager capex of Rs.71.79 Crores and has incurred Rs.89.52 Crores. Similarly, in the category of voltage improvement, the KPTCL had proposed only Rs.48.81 Crores, but it has allocated a higher capex at Rs.371.29 Crores and incurred Rs.343.80 Crores. In respect of evacuation of power from new generating stations, the KPTCL had proposed Rs.488.22 Crores, allocated only Rs.179.69 Crores and achieved a capex of Rs.167.09 Crores. Further, in the category of strengthening of existing system, the KPTCL had proposed a capex of Rs.261.72 Crores, against which it has allocated a capex of Rs.155.15 Crores and incurred Rs.161.61 Crores.

From the above analysis, it is observed that, the KPTCL has not properly segregated the works into the categories as planned. This shows lack of planning and coordination in preparing the annual plan of works and integrate it with the proposed work, as per the approved capex by the Commission. However, the total capital expenditure incurred by the KPTCL is within the approved capex for the FY15.

The capital expenditure in respect of completed works, on-going works, new works and general works as furnished by the KPTCL is shown below:

TABLE – 4.10

Physical & Financial Progress of Works for FY15

Amount in Rs. Crores

Classification of Work	No of works proposed	Budget allocation for FY15	Physical Progress (No.of works)	Financial Progress for FY15
Completed Works	95	80.37	95	69.53
On-going works	201	485.45	201	506.12
New Works	70	212.1	….	186.37
General Capital works	….	622.08	….	73.64
TOTAL	**366**	**1400**	**296**	**835.66**

From the above it is seen that, the KPTCL has incurred Rs.186.37 Crores towards new works during the year, but, has not achieved any physical progress thereon, during the FY15.

TABLE – 4.11

Proposed & Approved Capex Vs Actual Capital expenditure for FY13 to FY14

Amount in Rs.Crores

Year	Proposed Capex	Approved Capex	Capital Expenditure (Actuals)	% age Achieve -ment	Total value of Asset categorized
FY13	2500	1150	1011.38	87.94	1560.60
FY14	1400	1400	887.58	63.39	865.97
FY15	1400	1400	754.25	53.88	951.45

The asset categorized shown above, indicates a downward trend from FY13 onwards, which shows that, a number of works are still under execution stage. The KPTCL needs to take necessary action to complete the projects as per schedule and categorize the assets.

vii) Prudence Check of Capital expenditure for FY15 :-

The prudence check of capital expenditure of KPTCL was taken in two parts:

a) Prudence check of execution of the capital works of the FY15:
b) Prudence check of Material Procurement process of the FY15:

a) Prudence check of execution of the capital works of the FY15:

The Commission has been allowing the capital expenditure proposed by the KPTCL in tariff filing every year, subject to prudence check. The capital expenditure incurred by the KPTCL against the approved Capex for the FY15 and the cost of completed and categorized works is as shown below:

TABLE – 4.12
Approved Vs Actual Capital expenditure & Asset categorization for FY15

Amount in Rs. Crores

Year	Approved Capex	Capital Expenditure (Actuals)	% age Achievement	Asset categorized
FY15	1400	754.25	53.88	951.45

The Prudence check of capital expenditure, being an annual exercise, the Commission has entrusted the prudence check of capital expenditure of KPTCL to M/s Price water house Coopers Private Limited (PWC). M/s PWC have conducted the prudence check as per the guidelines and the terms of the reference prescribed in the bid documents and the scope of the work issued by the Commission.

In the prudence check carried out by M/s PWC, it received a list of works containing a total expenditure of categorized works for the year FY15 with a cost of Rs.636.68 Crores, of which a total sample size of Rs.261.39 Crores has been selected being a coverage of 41.3% of the total categorised works.

In case of the material procurement review for major materials, M/s PWC has reviewed Rs.131.99 Crores work of materials procured which is 20.7% of the total categorised amount.

The total number of capital works eligible for prudence check were 64 in the category of works costing Rs.3 Crore & above, and 45 works in the category of works costing below Rs.3 Crore. A total of 36 No. of sample projects were identified for the capex prudence check which included 21 projects with capex of Rs.3 Crore & above and 15 projects with capex below Rs.3 Crore.

After completing the prudence check work, the Consultants have submitted a report. Gist of the findings is as under:

Gist of Prudence check findings for FY15 Particulars	**Numbers**	**Amount in Rs.Crs.**
No. of works costing Rs.3 Crores and above considered as sample	21	238.53
No. of works costing less than Rs.3 Crores considered as sample	15	22.86
No. of works costing Rs.3 Crores and above not meeting the norms of prudence as stipulated in the guidelines issued by this Commission	Nil	
No. of works costing less than Rs.3 Crores not meeting the norms of prudence as stipulated in the guidelines issued by this Commission	Nil	
Total Number of works not meeting the norms of prudence as stipulated in the guidelines issued by this Commission	Nil	

Some of the other findings of the prudence check are summarized in the following Table:

Summary of Works having cost overrun

Particulars	Within 10%	Above 10%
Rs.3 Crores and above	01	05
below Rs.3 Crores	02	01

Summary of Works having Time overrun

Particulars	Within Year	Between one and two Years	above 2 Years
Rs.3 Crores and above	10	04	05
below Rs.3 Crores	06	03	0

b) Prudence check of Material Procurement process of the FY15:

The KPTCL has been executing capital works both on turnkey as well as partial turnkey contracts. In the process, the KPTCL procures major materials like, Power transformers, Circuit Beakers and conductors etc., and issues them to the partial turnkey contractor for carrying out the labour contract works as per award.

In view of the fact that, a large quantity of major materials are being procured by the KPTCL every year, the Commission decided to review material procurement process of major materials as a part of prudence check, to ensure that, the procurement is made out in a cost effective manner without compromising the operational needs. Hence, the consultants were directed to look into the procurement process of the KPTCL, and analyse the process.

The Consultant has stated that, Material procurement at KPTCL is carried out by the Tendering and Procurement (T&P) department of Corporate office as well as by Zone/field offices. Major material items like power transformers, circuit breakers, etc. are procured by the Corporate office mostly for new substation/augmentation of substation capacity. Zone/Field office of KPTCL procures other material of low value as per the requirement for specific project or for maintenance activities.

The material procurement is processed through Tendering as per the Karnataka Transparency in Public Procurements (KTPP) Act. The Chief Engineers (CEs) of the KPTCL transmission zones furnish material requirement to the SEE Project and Monitoring (P&M) department at the Corporate office. SEE (P&M) in turn provides the consolidated requirement of material to CE (T&P) department. Based on the requirement furnished by SEE (P&M), material procurement process is initiated.

Consultants have observed that the Corporate office of KPTCL has incurred expenditure of Rs.131.99 Crores for FY 2014-15 for procurement of power transformers and circuit breakers. The Corporate office has not placed purchase orders for procurement of conductors, cables and transmission line tower parts during FY 2014-15.

The Consultant has also observed that most of the power transformers were procured at above the prevailing SR Rates of FY13-14, except 12.5MVA, 66/11kV Power Transformers. While the 66kV and 110kV circuit breaker were purchased below the prevailing SR rates of FY13-14.

The Consultant has stated that, for review of material stock position of the KPTCL, information has been collected from all Divisional stores. No inventory is kept at store for high value items like transformers because major materials are purchased against works only, as and when required as per projects specifications as most capex works are awarded on Total Turn Key (TTK) basis. Only in cases of augmentation of sub-station, transformers and other materials are purchased by Corporate office.

The Commission had forwarded the Prudence Check final Report to the KPTCL for their information.

viii) Interest and Finance Charges:

The KPTCL has claimed an amount of Rs.525.39 Crores towards Interest and Finance charges. The Commission in its tariff order dated 6th May, 2013, had approved an amount of Rs.670.70 Crores. Thus, the actual Interest and Finance charges is lower by Rs.145.31 Crores

As per the Audited Accounts and data furnished under format T9, considering the opening and closing balances of long term loans, the average loan for the year FY15 would be Rs.4948.41 Crores. The weighted average rate of interest works out to 10.44% based on the actual amount of interest of Rs.516.62 Crores incurred during the FY15.

TABLE – 4.13
Allowable Interest and Finance Charges

Amount in Rs. Crores

Particulars	FY15
Secured Loans	5027.02
Unsecured Loans	11.02
Total	5038.04
Less Interest accrued & dues	0.00
Long term secured & unsecured loans	5038.04
Add new Loans	812.73
Less Repayments	991.99
Total loan at the end of the year	4858.78
Average Loan	4948.41
Interest on long term loans (as filed)	516.52
Weighted average rate of interest based on the actual interest proposed on long term loans in FY14 as per audited accts in %	10.44%
Allowable Interest on long term loans	**516.51**
Allowable other interest and finance charges	0.01
Capitalisation of Interest	38.71
Net interest and finance charges	**477.81**

Since the weighted average rate of interest is less than the prevailing interest rates for long term loans, the Commission decides to allow actual interest on long term loans and finance charges of Rs.516.52 Crores for FY15. Further, considering the actual capitalization of interest of Rs.38.71 Crores the net interest on long term loans and finance charges would be Rs.477.81 Crores.

Thus the Commission decides to allow net interest and finance charges of Rs.477.81 Crores for FY15.

ix) Interest on Working Capital:

As per the audited accounts for FY15, KPTCL has incurred interest on short term loans to an extent of Rs.8.85 Crores. As per the norms under MYT Regulations as amended, KPTCL is entitled to interest on working capital for FY15 as follows:

TABLE – 4.14

Allowable Interest on Working Capital

Amount in Rs.Crores

Particulars	FY15
One-twelfth of the amount of O&M Exp.	82.31
Opening GFA as per Audited Accts	12171.29
1% of Opening balance of GFA	121.71
One-sixth of the expected revenue from Transmission user at the prevailing tariffs	387.52
Total Working Capital	**591.54**
Rate of Interest (% p.a.)	11.75%
Interest on Working Capital	69.51
Actual interest on working capital as per audited accounts	8.85
Allowable interest on working capital as per Regulations	**39.18**

Thus, the Commission decides to allow the interest on working capital of Rs.39.18 Crores for FY15.

x) Other Debits:

The KPTCL in its Audited Accounts has indicated an amount of Rs.116.26 Crores towards other debits and wheeling charges. This includes an amount of Rs.103.38 Crores towards interest on outstanding power purchase dues. As the cost of power purchase including interest is not a component of transmission charges, the Commission hereby decides not to consider this expenditure for the purpose of the annual review of performance for FY15. The balance amount of Rs.12.88 Crores relates to cost of decommissioning of assets, small and low value items written off, interest on delayed compensation and miscellaneous losses and write offs.

As such the Commission decides to allow an amount of Rs.12.88 Crores towards other debits for FY15.

xi) Return on Equity:

KPTCL has claimed RoE of Rs.386.84 Crores for FY15 as follows:

TABLE – 4.15

Return on Equity - KPTCL's Submission

Amount in Rs.Crores

Calculation of RoE	FY15
Paid up share capital and share deposits	2075.32
Capital Reserves and Surplus	420.45
Total Equity	2495.77
RoE @ 15.50%	**386.84**

The Commission in its tariff order dated 6th May, 2013, had approved RoE of Rs.498.05 Crores, inclusive of MAT.

The Commission, in accordance with the MYT Regulations has considered paid up share capital, share deposits and reserves & surplus as per the audited accounts for FY15.

Further, the Commission has considered to allow RoE at 15.5% of equity and the taxes as per actual as reported in the audited accounts. Accordingly, the allowable RoE for FY15, is as follows:

TABLE – 4.16

Allowable RoE for FY15

Amount in Rs.Crores

Particulars	FY15
Paid Up Share Capital as on 31.03.2015	1575.32
Share Deposit	424.68
Reserves and Surplus	320.19
Total Equity	**2320.19**
Allowable RoE @ 15.50%	**359.63**

Thus, the Commission approves an amount of Rs.359.63 Crores towards RoE for FY15.

xii) Provision for Taxation:

KPTCL in its Audited Accounts has indicated an amount of Rs.21.86 Crores towards Income Tax for FY15. Since the Commission has allowed RoE @ 15.5% without considering allowable MAT, **the Commission decides to allow the actual expenses towards payment of Income Tax of Rs.21.86 Crores for FY15.**

xiii) Net Prior Period Charges:

KPTCL in its Audited Accounts has indicated an amount of Rs.55.00 Crores as net prior period credits. This amount pertains to net of prior period income / expenses and losses excess pertaining to depreciation, employee cost and other administrative expenses.

The Commission decides to allow an amount of Rs.55.00 Crores as net prior period credits for FY15.

xiv) Extraordinary items:

KPTCL in its Audited Accounts has indicated an amount of Rs.96.01 Crores being the RE subsidy amount accounted during FY04 withdrawn in accordance with letter No.EN 29 PSR 2015 dated 19.05.2015 of the Energy Department, GoK. KPTCL has also furnished the copy of this letter to justify the claims. As per the Commission's Tariff Order dated 6th July, 2007, while truing up the ARR for FY04, an amount of Rs.96.39 Crores has been considered as revenue subsidy based on the audited accounts of KPTCL for FY04. Since this amount which was considered as revenue during the earlier true up exercise for FY04, being withdrawn by KPTCL in FY15 based on the GoK's decision, **the Commission decides to consider this amount of Rs.96.01 Crores as extraordinary item of expenditure for FY15.**

xv) Other Expenses Capitalized:

KPTCL in its filing has indicated an amount of Rs.42.46 Crores towards capitalization of other expenses for FY15. KPTCL in its audited accounts has factored an amount of Rs.42.46 Crores towards capitalization which pertains mainly to capitalization of employee cost, A&G and R&M as detailed below:

TABLE – 4.17

Other Expenses Capitalized – KPTCL's Submission

Amount in Rs.Crores

Particulars	FY15
Repairs and Maintenance	0.08
Administration and General Expenses	6.18
Employee Cost	36.20
Total expenses capitalized	**42.46**

As per audited accounts of KPTCL, an amount of Rs.0.25 Crores is accounted towards capitalization of depreciation on assets. **Considering this amount, the Commission allows Rs.42.71 Crores towards capitalization of other expenses for FY15.**

xvi) Other Income:

KPTCL in its audited accounts has indicated an amount of Rs.70.68 Crores as other income for FY15. However, KPTCL in its application has indicated an amount of Rs.132.43 Crores as other income. This amount also includes the withdrawal of depreciation of Rs.40.47 Crores on assets created out of consumer contribution / grants. This amount has already been factored while computing allowable depreciation. It also includes an amount of Rs.60.76 Crores included as revenue from operations in the audited accounts for FY15. Since the Commission has considered this amount as part of the revenue from operations, the balance amount of Rs.30.21 Crores mainly pertaining to rent from staff quarters, rent from ESCOMs and interest on bank deposits etc., is treated as other income.

The Commission decides to consider this amount of Rs.30.21 Crores as non-tariff income for the purpose of APR for FY15.

xvii) SLDC Charges:

KPTCL in its filing has claimed an amount of Rs.0.22 Crores pertaining to SLDC charges from the ARR for FY15. This amount pertains to depreciation of assets pertaining to SLDC. As per KPTCLs application, the SLDC charges claimed for FY15 is Rs.16.60 Crores including other items of expenses are as detailed below:

TABLE – 4.18

SLDC Charges for FY15-KPTCL's Submission

Sl.No.	Particulars	Amount in Rs.Crs.
1	Employee cost	10.99
2	A & G Expenses	5.36
3	R & M Expenses	0.03
4	Depreciation	0.22

	Total	16.60

The Commission in its order dated 6th May, 2013 had approved SLDC Charges of Rs.20.13 Crores for FY15. However, considering the actual SLDC charges of Rs.16.60 Crores incurred during FY15 as per KPTCL's filing, the Commission decides to allow adjustment of the reduction in SLDC charges of Rs.3.54 Crores to be shared by ESCOMs as detailed below:

TABLE – 4.19

Allowable SLDC Charges for FY15

Amount in Rs. Crores

Particulars	Capacity Allocation in MW	SLDC Charges for FY15 as per APR	SLDC Charges for FY15 as approved in Order dated 12th May 2014	Excess to be adjusted in FY17
BESCOM	8666	7.73	9.87	-2.14
MESCOM	1530	1.36	1.6	-0.24
CESC	2253	2.01	2.23	-0.22
HESCOM	3706	3.30	3.83	-0.53
GESCOM	2465	2.20	2.61	-0.41
TOTAL	**18620**	**16.60**	**20.14**	**-3.54**

The above said excess amount of SLDC charges shall be adjusted in the SLDC charges payable by ESCOMs to KPTCL in FY17 as discussed in the subsequent chapter of this Order.

xviii) Abstract of Approved ARR for FY15:

As per the above item wise decisions of the Commission, the consolidated Statement of ARR for FY15 is as follows:

TABLE – 4.20

Abstract of approved ARR for FY15 as per APR

Sl. No.	Particulars	FY15 (Revised 12.05.2014)	As filed (30.11.2015)	As per APR
	Revenue from Transmission of power in Rs.Crs	**2196.95**	**2263.35**	**2325.12**
	Expenditure in Rs.Crs			
1	Employee Cost		790.19	
2	Repairs & Maintenance		137.39	
3	Admin & General Expenses		64.75	
	Total O&M Expenses	**776.58**	**992.33**	**987.69**
4	Depreciation	607.81	590.93	550.50
5	Interest & Finance Charges	670.70	525.39	516.52
6	Interest on working capital	67.35	0.00	39.18
7	Return on Equity	498.05	386.84	359.63
8	Provision for taxation	0.00	21.86	21.86
9	Other Debits	0.00	12.87	12.88
10	Extraordinary items	0.00	96.01	96.01
	Less			
11	Interest & Finance Charges capitalised	101.60	38.71	38.71
12	Other Expenses capitalised	37.43	42.46	42.71
13	Other Income	117.00	132.43	30.21
14	Net Prior Period Charges	0.00	55.00	55.00
15	Carry forward of surplus as per APR of FY13	166.74		
16	SLDC Charges	0.77	0.22	
	Net ARR	**2196.95**	**2467.41**	**2527.64**

4.4 Treatment of Gap in Revenue for FY15:

As against an approved ARR of Rs.2196.95 Crores and KPTCL's proposed ARR of Rs.2467.41 Crores, the Commission after the annual review of performance for FY15 decides to allow an ARR of Rs.2527.64 Crores for FY15. Considering the actual revenue of Rs.2325.12 Crores, there is a deficit of Rs.202.52 Crores for FY15.

The Commission decides to carry forward this deficit to the proposed ARR for FY17 as discussed in the subsequent chapter of this Order.

CHAPTER – 5

ANNUAL REVENUE REQUIREMENT FOR FY17 – 19

5.0 ERC Application for FY17–19:

KPTCL in its application dated 30th November, 2015, has requested the Commission to approve ARR and transmission charges for FY17-19. Further, KPTCL has also requested to carry forward the deficit of FY15 to the ARR of FY17, while determining the transmission tariff for FY17.

5.1 KPTCL's Submission:

KPTCL has proposed its ARR for FY17-19 as detailed below:

TABLE – 5.1

Annual Revenue Requirement for FY17-19 – KPTCL's Submission

Amount in Rs.Crores

Sl. No	Particulars	FY17	FY18	FY19
1	**Revenue**	**2842.83**	**3020.41**	**3129.70**
	Expenditure			
2	Employee Cost	859.02	1121.37	1172.32
3	Repairs & Maintenance	223.41	257.13	295.92
4	Admin & General Expenses	70.40	77.77	85.88
5	Total O&M Expenses	1152.83	1456.27	1554.12
6	Depreciation	759.73	840.73	921.56
7	Interest & Finance Charges	583.29	663.74	748.11
8	Return on Equity	462.79	550.02	635.27
9	Provision for taxation	98.77	117.38	135.58
10	Other Debits	13.44	14.78	16.26
	Less			
11	Interest & Finance Charges capitalised	45.36	52.80	60.26
12	Other Expenses capitalised	47.09	49.44	51.91
13	Other Income	48.44	52.82	57.66
14	Add carry forward deficit(-) of FY15	(204.06)		
	NET ARR	**3134.02**	**3487.86**	**3841.07**
	Gap	**(291.19)**	**(467.45)**	**(711.37)**

Considering the above ARR, KPTCL has requested to approve the following transmission charges for the Control Period FY17-19:

TABLE – 5.2

Transmission Charges FY17-19 – KPTCL's Submission

Particulars	FY17	FY18	FY19
Transmission Capacity in MW	20230	21505	22270
ARR in Rs.Crs.	2929.96	3487.86	3841.07
Gap of FY15 in Rs.Crs.	(204.06)		
Total Revenue Requirement in Rs.Crs.	3134.02	3487.86	3841.07
Transmission Tariff **(in Rs./MW/Month)**	**129100**	**135157**	**143731**

KPTCL has also sought,

i. To include the gap in revenue for FY15 as per APR in the ARR of FY17.

ii. To approve SLDC charges as proposed.

iii. To approve Open access charges for FY17-19.

Commissions' Analysis and Decisions:

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

5.2 Capital Investment Programme for FY17-19:

KPTCL's Proposal

KPTCL has proposed a capex of Rs.2000 Crores for each year of the Control Period FY17 to FY19, indicating the capex requirement for the completed, ongoing stations and new works. It is submitted by KPTCL that, the capital expenditure is planned with the following objectives:

a) To meet additional loads.
b) To improve voltage profile.
c) To take up Generation Green energy corridor projects.
d) To strengthen Bangalore transmission network.
e) To construct proposed 400 kV lines for Yeramarus evacuation scheme.

It is further submitted by KPTCL that, it has planned several projects involving 1300 ckms lines and 3900 MVA transformation capacity for evacuation of power from generation projects. The summary of the capex proposed for the control period is as under:

TABLE – 5.3

Capital Investment Plan for FY17-19 – KPTCL's Submission

Amount in Rs. Crores

Particulars	2016-17		2017-18		2018-19	
	No.s	Budget	No.s	Budget	No.s	Budget
Completed works	252	543.80	252	508.31	293	777.48
Ongoing Stations	252	735.94	250	694.95	217	781.10
New works	234	720.25	234	796.73	16	441.41
General						
TOTAL	**738**	**2000**	**736**	**2000**	**526**	**2000**

Further, KPTCL has also submitted the details of Substations, Exclusive lines and Augmentation works, proposed to be taken up during FY17 to FY19 as follows:

TABLE – 5.4

Proposed Capital Investment Plan of KPTCL for FY17-19

Particulars	FY17			FY18			FY19		
	No. of Works	Project Cost in Rs. Crs	Budget 16-17 in Rs Crs	No. of Works	Project Cost in Rs Crs	Budget 17-18 in Rs Crs	No. of Works	Project Cost in Rs Crs	Budget 18-19 in Rs Crs
Sub-Station	35	650.29	134.3	66	1103.18	323.71	55	1514.83	390.94
Augmentation	46	104.68	22.03	106	223.63	58.18	110	256.88	71.05
Exclusive lines	36	948.71	200.65	65	1125.6	274.58	49	1172.47	308.58
Total	117	1703.68	356.98	237	2452.41	656.47	214	2944.18	770.57

It is submitted by KPTCL that the proposed capex is to fulfill the objectives and responsibilities it has to discharge under the Electricity Act, 2003 and the National Electricity Policy, through systematic planning and implementation of the transmission capacity building programmes in the State.

Commission's Analysis and Decisions:

The status of capex proposed, incurred, percentage achievement and the assets categorized for the period from FY13 to FY15 against the capex actually incurred is as under:

TABLE – 5.5

Proposed & Approved Capex Vs Actual Capital expenditure for FY13 to FY15

Amount in Rs.Crores

Year	Proposed Capex	Approved Capex	Capital Expenditure (Actuals)	% age Achievement	Total Asset categorized
FY13	2500	1150	1011.38	87.94	1560.60
FY14	1400	1400	887.58	63.39	865.97
FY15	1400	1400	754.25	53.88	951.45

From the above table, the Commission notes that, as against the approved capex, the KPTCL has achieved 87.94% of the approved capex of Rs.1150 Crores (which was originally proposed at Rs.2500 Crores) for FY13 and the percentage achievement has come down to 63.39% and 53.88% during FY14 and FY15 respectively. This indicates that the KPTCL has not been able to achieve the targets as approved by the Commission. It also indicates lack of proper planning and execution on the part of KPTCL.

The Commission notes that, the capex required for completed works and ongoing works amounts to more than 50% of the capex proposed for each year from FY17 to FY19. 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.

Further, looking at the quantum of works shown in the category of completed and ongoing works for FY17 to FY19, KPTCL is likely to continue the progress of capex at the same levels as was achieved in the previous years.

The Commission further notes that, KPTCL has not submitted its rolling perspective plan for the control period i.e., FY17 to FY19, which should inter-alia contain the load forecast and generation planning also. Further, it is noted that, KPTCL has not specified as to whether its capex plan is based on the earlier Perspective Plan prepared during FY13 with relevant changes for each years or it has planned its capital investment according to the "**Capital Expenditure Guidelines for KPTCL**" issued by the Commission. Without a proper and updated rolling perspective plan, KPTCL would not be in a position to achieve its own set goals as per its mission statement.

KPTCL should submit its Rolling Plan for the Control Period within three months, duly considering the **"Capital Expenditure Guidelines for KPTCL" issued by the Commission** and the recommendations of the earlier Perspective Plan, variations occurred during the previous years and also the works planned for mitigating the transmission congestion around Bengaluru city as well as other places, power evacuation from new major power generating stations and addressing the requirement of reliability and alternative power supply availability to all important substations.

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 the capex to be allowed should be at the reasonable levels which are achievable, so as to strike a balance between the capex needs and the likely achievement by the transmission licensee.

Hence, the Commission recognizes the capex of Rs.2000 Crores for each year from FY17 – 19 as proposed by KPTCL. However, the Commission decides to consider a reasonable amount of Rs.1500 Crores for tariff computation and directs KPTCL that, if it requires any additional capex, it may approach the Commission for additional capex, with proper justification. The Commission would consider the requests on submission of details / proper justification by KPTCL.

5.3 Transmission Losses:

KPTCL in its filing has projected transmission losses for the third 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 are as follows:

TABLE – 5.6

Transmission Losses FY17-19 – KPTCL's Submission

Particulars	FY17	FY18	FY19
Input Energy to KPTCL Grid (MU)	686945	72035	75447
Energy at interface point (MU)	66311	69608	72980
Transmission loss in MU	2384	2427	2467
Transmission loss in %	**3.47**	**3.37**	**3.27**

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

TABLE – 5.7

Projected Trajectory of transmission losses (in % terms)

Range	FY17	FY18	FY19
Upper Limit	3.67	3.57	3.47
Average	3.47	3.37	3.27
Lower Limit	3.27	3.17	3.07

KPTCL has stated 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, improvement of system reliability besides reduction in transmission and distribution losses

Commission's Analysis & Decision:

The Commission, in its Tariff Order dated 6th May, 2013 had benchmarked transmission losses at 3.92% for FY15 and 3.90% for FY16 on the basis of the methodology followed by KPTCL till then wherein the input energy data included not only energy input of KPTCL system but also the energy from Southern Grid.

KPTCL in its present filing has computed transmission loss trajectory on the basis of energy input to KPTCL system and output as per the energy delivered at interface points of ESCOMs. The actual transmission losses as per the above methodology for FY15 are reported at 3.67%. Further, KPTCL has reported the transmission losses of 3.536% for the period April 2015 to November 2015 considering energy input as measured at KPTCL periphery and energy output at IF Points with ESCOMs for determining transmission losses.

The Commission in its Tariff Order dated 2nd March, 2015 has approved the present methodology of considering energy input as measured at KPTCL periphery and energy output at IF Points with ESCOMs for determining transmission losses.

As regards the auxiliary consumption, the Commission as per its earlier decision continues to treat the same as sale by ESCOMs and charges payable by KPTCL. KPTCL is required to exclude the auxiliary consumption while computing its transmission losses.

Considering the actual loss levels achieved in FY15, the current level of transmission losses reported for FY16 and the capex proposals for the control period FY17 – 19 wherein KPTCL has justified that investments in transmission network would result in reduction of losses both in transmission and distribution system, the Commission decides to accept the proposal of KPTCL and accordingly the following is the approved loss trajectory for FY17-19:

TABLE – 5.8

Approved trajectory of Transmission Losses for FY17-19

Range	FY17	FY18	FY19
Upper Limit	3.67	3.57	3.47
Average	**3.47**	**3.37**	**3.27**
Lower Limit	3.27	3.17	3.07

5.4 O & M Expenses:

KPTCL in its filing has projected O & M expenses in terms of R& M expenses, A&G expenses and employee cost as detailed below:

a) Repairs and Maintenance Expenses

KPTCL has stated that, R&M Expenses have been projected at an average rate of about 15% over and above the budgeted amount for FY16. KPTCL has stated that it is essential to improve existing stations and other office buildings, as also the stations likely to come up during the 4th Control Period. Further, KPTCL has taken into account the maintenance of SCADA infrastructure, station control room equipment, TCD and RT division equipment etc. The R & M expenses projected for the Control Period are as follows:

TABLE – 5.9

R&M expenses – KPTCL's projections

Amount in Rs. Crores

Particulars	FY16 (Revised estimate)	FY17	FY18	FY19
Repairs and maintenance (excluding expenses shared by ESCOMs)	**194.09**	**223.41**	**257.13**	**295.92**

b) Employees Costs

KPTCL in its filing has stated that, the Employees cost estimates are based on normal increase like Annual Increments and Dearness Allowance of 4% per installment, for two installments and other allowances have been considered at the existing rates. Further, KPTCL has computed contribution to Pension Trust considering the provisional actuarial valuation at 35% on Basic pay, Dearness pay and Dearness Allowance for Pension and for Gratuity at 10% on Basic Pay and Dearness Pay. The details of the Employees Costs proposed by KPTCL are as follows:

TABLE – 5.10

Employee cost – KPTCL's projection

Amount in Rs. Crores

Particulars	FY16 (Revised Estimate)	FY17	FY18	FY19
Employees Cost (excluding expenses shared by ESCOMs)	843.48	859.02	1121.37	1172.32

5.5 Administration and General Expenses:

KPTCL has stated that, the Administration & General (A&G) Expenses are projected based on the realistic estimates made by the accounting units for the base year. A & G Expenses are estimated at an average of 10% for the fourth Control Period taking into account expenses like Rent, Rates and Taxes, Expenses to be incurred towards Security arrangement, Insurance and Telephone charges etc. Accordingly, the projected A&G expenses for the control period are as follows:

TABLE – 5.11

A&G Expenses - KPTCL's Projections

Amount in Rs. Crores

Particulars	FY16 (Revised Estimate)	FY17	FY18	FY19
A & G Expenses (excluding expenses shared by ESCOMs)	63.72	70.40	77.77	85.88

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

TABLE – 5.12

O&M Expenses – KPTCL's projections

Amount in Rs. Crores

Particulars	FY16	FY17	FY18	FY19
R&M Expenses	194.09	223.41	257.13	295.92
Employee Cost	843.48	859.02	1121.37	1172.32
A&G Expenses	63.72	70.40	77.77	85.88
O & M expenses (excluding expenses shared by ESCOMs)	**1101.29**	**1152.83**	**1456.27**	**1554.12**

The projected details of circuit kilometers of transmission lines and station bays are as follows:

TABLE – 5.13

Voltage class wise transmission lines – KPTCL's Projections

Transmission lines in Ckmts					
Voltage Class	**FY15 (Actual)**	**FY16**	**FY17**	**FY18**	**FY19**
400 kV	2650	2683	3053	3533	3953
220 kV	10298	10498	10748	11038	11243
110 kV	10021	10171	10911	11026	11596
66 kV	10235	10442	10712	11162	11422
Total	**33204**	**33794**	**35424**	**36759**	**38214**

TABLE – 5.14

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)
FY15 (Actuals)	5136	2290	1474	823	10524	**20247**
FY16	5238	2367	1532	870	10897	**20904**
FY17	5347	2457	1592	1078	11296	**21770**
FY18	5504	2607	1681	1244	12080	**23116**
FY19	5657	2723	1764	1328	12758	**24230**

Further, in accordance with the provisions of the MYT Regulations, KPTCL in its filing has computed the O & M expenses as follows:

TABLE – 5.15

Normative O&M Expenses for FY17-19 – KPTCL's Projections

Particulars	FY17	FY18	FY19
O & M Expenses for lines (in Rs. thousands / km)	499.47	518.30	538.81
O & M Expenses for bays (in Rs. Thousands/ bay)	213.51	227.11	238.36
Total O & M Expenses	**712.98**	**745.41**	**777.17**

KPTCL has stated that, even if the inflation at the rate of 5.49% factored by the Commission in its calculations in tariff order 2013 is considered, the O&M expenses as per normative would increase marginally. This amount is not adequate as compared to the projections made by the KPTCL based on the actuals of FY-15 escalated by a moderate increase of 8% (except for FY18 wherein revision of pay is considered). The O&M expenses as per audited accounts and as approved by the Commission in respective tariff orders indicate that the O&M expenses based on norms, are falling short of actuals by substantial amounts.

TABLE – 5.16

O&M expenses as per audited accounts Vs. approved O & M expenses – KPTCL's Submission

Amount in Rs. Crores

Particulars	FY13	FY14	FY15
O&M Expenses as per actuals	796.54	848.07	992.33
O&M Expenses as approved by KERC	704.64	817.83	776.58
Difference	91.90	30.24	215.75

KPTCL has also furnished the breakup of O & M expenses in terms of expenses incurred for maintenance of bays and maintenance of lines for FY15 wherein it is observed that major amount is required for maintenance of bays (stations) as compared to the amount spent on maintenance of transmission lines.

In view of the above, KPTCL has requested to consider O & M expenses as proposed.

Commission's Analysis and Decision:

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.

KPTCL has requested the Commission to allow normative increase of 8% over the actuals, since the approved O & M expenses as per norms are not adequate to meet the actual O& M expenses.

The Commission notes that, the projections of R&M expenses, employee cost and O&M expenses made by the KPTCL indicate an annual increase of about 8% except for the FY18.

Hitherto, the Commission was considering 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. This approach was basically due to variations in data pertaining to one year wherein there were elements of pay revision, revision of HRA, variations in contribution to Pension and Gratuity Trust and provisions for leave encashment.

Now, as there are no new elements of any O & M expenses in the FY15 apart from the P&G contribution and leave encashment, the Commission decides to consider actual O & M expenses of the FY15, as per the audited accounts of KPTCL, excluding the contribution to Pension and Gratuity Trust and provisions for the leave encashment as base year data for the control period FY17-19.

KPTCL in its application has projected employee cost for FY18 at an abnormal increase of 30.50% over FY17 owing to the proposed revision of pay. In the absence of supporting data for claiming additional employee cost due to revision of pay scales effective from 1st April, 2017, the Commission is of the view that such expenses could be factored only after being incurred by the KPTCL. Further, the Commission is of the view that any revision of pay scales should reflect in improved productivity and efficiency for the betterment of services rendered by the KPTCL to the consumers in the State. As per the decisions of the Commission in the similar situations in the earlier Tariff Orders, the KPTCL is required to justify any increase in pay scale with commensurate increase in real employee productivity. Accordingly, the Commission will look into the issue, at the time of approving the APR for relevant years when the actual revision of pay scales takes place instead of loading these costs upfront, in the present ARR exercise.

The P & G contribution is varying as per actuarial valuations undertaken by the KPTCL on an annual basis and the KPTCL is also providing additional pension contribution for its employees recruited on or after 1st June, 2006 to meet the pension obligations of such employees under the "Newly Defined Contributory Pension Scheme". The Commission notes that, these contributions for the terminal benefits of the employees constitute an additional cost over and above the regular employee cost, which are factored in on normative basis. Further, the Commission notes that, the KPTCL is factoring provisions for leave encashment which forms substantial amount of the employee cost. Therefore, the Commission decides to consider these costs as uncontrollable O & M expenses and thereby determine the normative O & M expenses (controllable O & M expenses) duly considering the actual O & M expenses for the base year without the P&G contribution and the provision for earned leave encashment.

Accordingly, the Commission has computed the allowable O & M expenses for the Control Period FY17 to FY19 by considering the actual O & M expenses for the base years the FY15 (without P&G contribution and leave encashment) duly applying the inflation factor computed with apportionment of CPI and WPI in the ratio of 80 : 20 as 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 – 5.17

Computation of weighted inflation index

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2003	92.6	107	104.12				
2004	98.72	111.1	108.624	1.04	0.04	1	0.04
2005	103.37	115.8	113.314	1.09	0.08	2	0.17
2006	109.59	122.9	120.238	1.15	0.14	3	0.43
2007	114.94	130.8	127.628	1.23	0.20	4	0.81
2008	124.92	141.7	138.344	1.33	0.28	5	1.42
2009	127.86	157.1	151.252	1.45	0.37	6	2.24
2010	140.08	175.9	168.736	1.62	0.48	7	3.38
2011	153.35	191.5	183.87	1.77	0.57	8	4.55
2012	164.93	209.3	200.426	1.92	0.65	9	5.89
2013	175.35	232.2	220.83	2.12	0.75	10	7.52
2014	182	246.9	233.92	2.25	0.81	11	8.90
A= Sum of the product column							35.36
B= 6 Times of A							212.19
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							0.0724
e=Annual Escalation Rate (%)=g*100							**7.24**

The Commission notes that, as per the actual data furnished by the KPTCL for the FY15 substantial amount of the O & M expenses is 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.

Considering the above factors, the actual O & M expenses of the FY15 as per audited accounts excluding contribution to the P&G Trust and the leave encashment and the number of Bays and Lines as proposed by the KPTCL, the normative O & M expenses for the FY17-19 is worked out, as follows:

TABLE – 5.18

Normative O & M Expenses FY17 – FY19

Particulars	FY15
Actual O&M expenses without SLDC Charges and contribution to P&G Trust in Rs.Crs.	701.99
O&M Costs for stations in terms of Bays @70% of O&M Expenses in Rs.Crs.	491.40
O&M Costs for Transmission Lines in terms of Ckt.Kms @30% of O&M Expenses in Rs.Crs.	210.60
Bays (No.s)	20247
Line length (Ckt. Km)-	33204
O&M Costs per bay (Rs in thousands)	**242.70**
O&M Costs per Ckt. Km (Rs in thousands)	**63.43**

Particulars	FY17	FY18	FY19
O&M cost in terms Rs. Lakhs/Bay	2.79	2.99	3.21
O&M cost in terms Rs. Lakhs/Km of transmission Line	0.73	0.78	0.84
Inflation rate*	7.24	7.24	7.24
No. of Bays	21770	23116	24230
Length of transmission Line (in Ckt.Kms)	35424	36759	38214
O&M Expenses for Bays Rs Crs	607.62	691.90	777.74
O&M Expenses for transmission Lines (Rs Crs.)	258.39	287.53	320.55
TOTAL O&M Expenses as per Norms (Rs. Crs.)	**866.01**	**979.43**	**1098.29**

Considering the actual data of basic pay, dearness pay, dearness allowance and contribution to P&G Trust during the FY15, the allowable contribution to the P&G Trust for the Control Period of FY17-19 is as follows:

TABLE – 5.19

Approved Additional Employee Cost
(Uncontrollable O&M Expenses) for FY17-19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Basic Pay+DP	363.62	374.53	385.77
DA	147.27	181.65	217.96
Basic Pay+DP+DA	510.89	556.18	603.73
Contribution to Pension fund including NDCPS @ 30% /10%.	114.60	124.76	135.43
Gratuity Contribution@6.01% on Basic+DP for other than those covered under NDCPS	13.58	13.99	14.41
Total P&G Contribution	**128.19**	**138.75**	**149.84**

As regards allowing the provisions for the leave encashment for the FY17-19, the Commission decides to consider the projections made by the KPTCL, subject to revising the same as per actuals during APR for the relevant years. Thus, the uncontrollable O & M expenses allowable for FY17-19 are, as follows:

TABLE – 5.20

Approved Additional Employee Cost
(Uncontrollable O&M Expenses) for FY17-19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Contribution to P&G Trust	128.19	138.75	149.84
Contribution to leave encashment	123.01	98.41	78.72
Total uncontrollable O & M expenses	**251.20**	**237.16**	**228.56**

Based on the above allowable normative O & M expenses and uncontrollable O & M expenses, the approved O & M expenses for FY17-19 are as follows:

TABLE – 5.21

Approved O&M Expenses for FY17-19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
O&M Expenses as per Norms	866.01	979.43	1098.29
Additional O&M Expenses on account of P&G Contribution	251.20	237.16	228.56
Allowable O&M Expenses with P&G Contribution	**1117.21**	**1216.59**	**1326.85**

5.6 Depreciation:

The KPTCL has projected the depreciation for the control period duly considering the rates of depreciation specified by the CERC.

TABLE – 5.22

Depreciation – KPTCL's Projections

Amount in Rs.Crores

FY15 (Actual)	FY16 (Revised)	FY17	FY18	FY19
591.18	690.47	759.73	840.73	921.56

Commission's Analysis and Decisions:

As per the MYT Regulations, as amended, 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 of gross block of assets for the FY15 as per the audited accounts. As discussed in the earlier paragraphs of this chapter, the Commission has decided to allow an amount of Rs.2000 Crores for each of the years of the control period towards capex as proposed by KPTCL. However, considering the actual achievements of the KPTCL, as against approved capex during the previous three control periods, for the purpose of factoring depreciation on the proposed investments and likely addition of assets, the Commission decides to consider an amount of Rs.1500 Crores for each of the years of the control period of the FY17-19. 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 during the year from time to time, the

Commission has determined the allowable depreciation on the average gross block of assets by applying the rate of depreciation as specified by the CERC.

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 net fixed assets and depreciation thereon as per the audited accounts for the FY15. Based on this rate of depreciation, the allowable depreciation is computed on the capital assets excluding assets created out of consumer contribution / grants as proposed by the KPTCL for FY17-19.

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

TABLE – 5.23

Approved Depreciation for FY17 – 19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Building and Structures	18.49	19.99	21.48
Plant and Machinery	383.07	411.77	440.39
Sub station transformers, lines etc.	305.35	328.95	352.52
Hydraulic works	3.61	3.84	4.06
Other civil works	1.82	2.02	2.21
Vehicles	0.38	0.39	0.41
Furnitures	1.03	1.07	1.10
Office equipments	0.24	0.27	0.31
Less Depreciation on assets created out of consumer contribution and grants	30.31	32.79	35.52
Approved depreciation	**683.69**	**735.51**	**786.95**

Thus, the Commission decides to allow the net depreciation of Rs.683.69 Crores, Rs.735.51 Crores and Rs.786.95 Crores for FY17, FY18 and FY19 respectively subject to prudence check of capex for relevant years.

5.7 Interest and Finance Charges:

KPTCL Submissions:

The KPTCL in its filing has stated that, the Interest cost has been estimated on the existing loan portfolios and on drawls during the current year. In the case of existing loans as on 31-03-2015, the interest on loans is computed at a weighted average rate of 10.69% p.a. as per actuals for the FY15. For future investments during the control period, the KPTCL has considered the weighted average rate of 10%. As regards the new loans availed during the FY16 (Upto November 2015), the KPTCL has informed that loans from commercial banks are availed at an interest rate of 9.70%.

As regards the capex Programme of Rs.2000 Crores for each year of the fourth Control Period, the funding is expected through long term debts of Rs.1400 Crores to Rs.1500 Crores and the balance from the internal resources, equity by the GoK and grants.

The KPTCL has stated that, it is managing its finances through short term borrowings. However, the Commission is not allowing interest on short term borrowings on the ground that it allows interest on working capital on a normative basis. The interest cost allowed on Working Capital on normative basis is not sufficient to cover the interest on short term borrowings. The KPTCL has requested to consider the same and allow the projected interest for the control period including interest on short term borrowings.

The details of Interest and Finance charges projected for the FY17 to FY19 are, as follows:

TABLE – 5.24

Interest & Finance Charges – KPTCL's Projections

Amount in Rs.Crores

	FY17	FY18	FY19
Interest and Finance charges	583.29	663.74	748.11

Commission Analysis and Decisions:

The Commission notes that, though substantial capex was allowed in the Tariff Orders, the KPTCL has not been able to utilize the entire approved capex in the past three control periods. The actual achievement varies from as low as 56% in the FY12 to 91% in the FY10. During the next control period, the KPTCL has proposed annual capital expenditure requirement of Rs.2000 Crores as against the past proposal of Rs.1400 Crores per year during FY14 – 16. As discussed earlier in this Chapter, the Commission has allowed a reasonable capex of Rs.1500 Crores for each of the year of the control period FY17 – 19. Considering the actual performance, for the purpose of factoring the interest on proposed investments in to the ARR, the Commission has decided to allow a debt equity ratio of 70 : 30 on Rs.1500 Crores.

The claims of KPTCL to allow interest on short term loans for financing capex cannot be considered, as the Commission considers that short term loans should be availed only for working capital for which interest is being allowed separately as per the provisions of the MYT Regulations. It is financially prudent to avail long term loans for capital expenditure and therefore no provision has been made for short term loan for capex. Consequently, KPTCL's claim in this regard is rejected.

The weighted average rate of interest on long term loans as per the audited accounts for the FY15 is 10.44% p.a. This rate of interest is considered for the existing loan balances for which interest has to be factored during FY17. Further, for the years FY18 and FY19, the weighted average rate of interest of the preceding year has been considered on the existing loan balances. The Commission decides to consider the new loans at an interest rate based on the SBI base rate of 9.30% existing as on 5th October, 2015 with a spread of 200 basis points. Since interest rates are at present on a downward trend, the Commission has considered the normative rate of interest on new long term loans at 11.25% p.a.

On the basis of the above discussions and considering the closing balance of long term loans for the FY15, the Commission has computed the allowable interest on loans as detailed below:

TABLE – 5.25

Approved Interest on Loans for FY17-19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Opening balance of long term loans	5245.70	5676.47	6112.96
Add new Loans	1050.00	1050.00	1050.00
Less Repayments	619.23	613.51	658.46
Total loan at the end of the year	5676.47	6112.96	6504.50
Average Loan	5461.08	5894.71	6308.73
Allowable Interest	574.30	623.75	671.07
Weighted average rate of interest	**10.52%**	**10.58%**	**10.64%**
Interest on long term loans	**574.30**	**623.75**	**671.07**

The above approved interest and finance charges allowed are subject to prudence check of capex actually made for the relevant years of the control period.

5.8 Interest on Working Capital:

The KPTCL has not claimed working capital separately for each of the years in the Control Period FY17-19. However under Format T9, it has indicated interest on short term loans based on the closing balance of Rs.40.00 Crores for the control period, as follows:

TABLE – 5.26

Interest on Working Capital – KPTCL's Projections

Amount in Rs. Crores

Particulars	FY17	FY18	FY19
Interest on working capital	4.00	4.00	4.00

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 filing does not indicate any addition or repayment of short term loans on a regular basis during the control period. However, the Commission in accordance with the provisions of the MYT Regulations decides to allow interest on working capital at the normative rate of interest on short term loans.

The base rate of interest declared by State Bank of India with effect from 5th October, 2015 is 9.30% as compared to the earlier rate of 9.70%. Considering a spread of 250 basis points above the base rate, the interest rates works out to 11.80%. Since interest rates at present are showing a downward trend, the Commission has considered the normative rate of interest of 11.75% p.a.

The Commission therefore, in accordance with the norms specified under MYT Regulations, decides to approve the interest on working capital considering the normative rate of interest for short term loans at 11.75% as follows:

TABLE – 5.27

Approved Interest on Working Capital for FY17-19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
One-twelfth of the amount of O&M Exp.	93.10	101.38	110.57
Opening GFA as per Audited Accts	14146.94	15268.87	16388.46
Stores, materials and supplies 1% of Opening balance of GFA	141.47	152.69	163.88
Receivables equivalent to two months average revenue	473.81	503.40	521.62
Total Working Capital	708.37	757.47	796.07
Rate of Interest (% p.a.)	11.75%	11.75%	11.75%
Interest on Working Capital	**83.23**	**89.00**	**93.54**

5.9 Return on Equity:

The KPTCL has computed Return on Equity considering the equity plus reserves and surpluses at the beginning of the year duly applying the rate considered by the Commission as follows:

TABLE – 5.28

Return on Equity – KPTCL's Submission

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Equity	2075.32	2075.32	2075.32
Reserves & Surplus	810.39	1273.18	1823.20
Share Deposit	100.00	200.00	300.00
Total	2985.71	3548.50	4198.52
RoE @ 15.50%	**462.79**	**550.02**	**635.27**

Commission's Analysis and Decisions:

The Commission has considered the closing balance of paid up share capital, the accumulated surplus in profit and loss accounts carry forward to reserve and surplus account and share deposit as per the audited accounts for the FY15 as the base data for the projections for the control period. Further, the Commission has considered infusion of additional equity of Rs.25 Crores during the FY16 as per the Orders of the Government of Karnataka. The Commission has considered the prevailing rate of Minimum Alternate Tax (MAT) at 21.342% on the Return on Equity of 15.50% as specified in the MYT Regulations.

TABLE – 5.29

Approved Return on Equity for FY17-19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Paid Up Share Capital	2075.32	2075.32	2075.32
Share Deposit	45.00	45.00	45.00
Reserves & Surplus	786.02	1236.51	1756.82
Total Equity	2906.34	3356.83	3877.14
RoE inclusive of MAT	**572.71**	**661.48**	**764.01**

5.10 Interest and other Expenses capitalized:

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

TABLE – 5.30

Proposed capitalization Interest and other Expenses

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Interest expenses capitalized	45.36	52.80	60.26
Other expenses capitalized	47.09	49.44	51.91

The Commission decides to approve these expenses as proposed by the KPTCL for the control period FY17-19.

5.11 Non Tariff Income:

KPTCL in its filing has projected non tariff income at Rs.48.44 Crores, Rs.52.82 Crores and Rs.57.66 Crores for FY17, FY18 and FY19 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 and miscellaneous receipts.

Commission's Analysis and Decisions:

The Commission notes that, KPTCL in its filing under Format T4 has projected non tariff income for the control period considering income from investments, income from sale of scrap, rent from staff quarters & others and miscellaneous receipts.

As such, for the purpose of allowing the non-tariff income for the control period, the Commission decides to consider the proposed amounts for the control period FY17 to FY19 as follows:

TABLE – 5.31

Approved Non Tariff Income for FY17-19

Amount in Rs.Crores

Non Tariff Income	FY17	FY18	FY19
	48.44	52.82	57.66

5.12 SLDC Charges:

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

TABLE – 5.32

SLDC Charges – KPTCL's Submission

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Employee cost	14.95	18.70	19.30
R&M expenses	0.65	0.80	0.60
A&G expenses	7.65	8.50	9.30
Depreciation and other costs relating to fixed assets	0.28	0.32	0.35
TOTAL	**23.53**	**28.32**	**29.55**

Commission's Analysis and Decisions:

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

The Commission notes that, the employee cost of SLDC projected for FY18 and FY19 also includes the component of revision of pay. As discussed in the earlier paragraphs under O & M expenses, the Commission decides to allow normative employee cost of Rs.16.18 Crores for FY18 and Rs.17.60 Crores for FY19 besides considering the other expenses namely R&M and A&G as proposed by KPTCL. Thus, the SLDC charges allowed to be recovered by the KPTCL for the control period FY17-19 are as follows:

TABLE – 5.33

Approved SLDC Charges FY17-19

Amount in Rs.Crores

Particulars	FY17	FY18	FY19
Employee cost	14.95	16.18	17.60
R&M expenses	0.65	0.80	0.60
A&G expenses	7.65	8.50	9.30
Depreciation and other costs relating to fixed assets	0.28	0.32	0.35
TOTAL	**23.53**	**25.80**	**27.85**

Further, as discussed in the earlier chapter of this Order, an amount of Rs.3.54 Crores of excess SLDC charges recovered in the FY15 is to be adjusted in the SLDC charges payable by ESCOMs in FY17.

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

TABLE – 5.34

Approved ESCOM wise SLDC Charges for FY17-19

Particulars	FY17		FY18		FY19	
	Transmission Capacity Allocation in MW	SLDC charges Rs.Crores per annum*	Transmission Capacity Allocation in MW	SLDC charges Rs.Crores per annum	Transmission Capacity Allocation in MW	SLDC charges Rs.Crores per annum
BESCOM	9728	9.17	11003	13.20	11428	14.29
MESCOM	1615	1.64	1615	1.94	1615	2.02
CESC	2253	2.40	2253	2.70	2423	3.03
HESCOM	3999	4.13	3999	4.80	4169	5.21
GESCOM	2635	2.65	2635	3.16	2635	3.30
TOTAL (MW)	**20230**	**19.99**	**21505**	**25.80**	**22270**	**27.85**

*** After deducting the excess amount allowed for FY15**

5.13 Abstract of Approved ARR for FY17 – 19

The abstract of approved ARR for the control period FY17-19 are as follows:

TABLE – 5.35

Approved ARR for FY17-19

Amount in Rs.Crores

Sl.No.	Particulars	FY17	FY18	FY19
1	O&M Expenses	1117.21	1216.59	1326.85
2	Depreciation	683.69	735.51	786.95
3	Interest & Finance Charges	574.30	623.75	671.07
4	Interest on working capital	83.23	89.00	93.54
5	Return on Equity	572.71	661.48	764.01
6	Provision for taxation	0.00	0.00	0.00
7	Other Debits	0.00	0.00	0.00
8	Extraordinary items	0.00	0.00	0.00
	Less			
9	Interest & Finance Charges capitalised	45.36	52.80	60.26
10	Other Expenses capitalised	47.09	49.44	51.91
11	Other Income	48.44	52.82	57.66
12	Net Prior Period Charges			
13	Carry forward of deficit of FY15	202.52		
14	**NET ARR**	**3092.77**	**3171.28**	**3472.60**

Based on the approved ARR, the transmission charges for FY17-19 is determined in the subsequent chapter of this order.

5.14 Application for Additional Revenue Requirement for FY17:

The KPTCL, in its application dated 16th March, 2016, seeking additional ARR for FY17 has submitted that:

1. The Second Transfer Scheme Rules dated 31.05.2002 were issued by the GoK, for transfer of assets and liabilities and personnel of KPTCL to the ESCOMs. According to Rule 4(13) of these Rules, the State Government is responsible for funding the pension and other liabilities of the personnel as on the date of Second Transfer i.e. 31.05.2002 and sub rule 13(2)(b) provides for establishment of a Pension Trust for managing the fund.

2. The GoK, vide its order dated 19.12.2002, has ordered constitution of the Pension and Gratuity Trust and also decided to adopt "Pay

as you go" approach, in funding the pension and gratuity requirement.

3. The GoK vide its letter dated 25.02.2016, has informed that against the proposed pension and gratuity contribution of 996.39 Crores for FY17 and the arrears of pension contribution of Rs.2047.84 Crores payable to KPTCL and ESCOMs, the Finance Department (FD) has agreed to provide Rs.550 Crore for meeting the pension liability. As there is difference between the proposed requirement and the availability as indicated by the FD for FY17, the Pension Trust is directed to work out the amount of contribution to be recovered through tariff considering the indicative amount of contribution available from the Government.

4. It is submitted by KPTCL that, as worked out by the Pension Trust, an amount of Rs.527.79 Crores (Arrears of Rs.427.49 Crores and Rs.100.30 Crores for FY17) has to be recovered through tariff.

Accordingly, KPTCL has filed an application claiming an additional ARR of Rs.1081.58 Crores, to be recovered through tariff.

Commission's views and decision

The Commission proceeds to dispose of the application filed by KPTCL, as follows:

a) The application for additional ARR has been filed on 16th March 2016, that is much after completion of the process of calling for objections on the original tariff application and furnishing replies thereon. The Commission has also completed the process of public consultation by holding a public hearing, in respect of KPTCL, on 26th February, 2016.

b) As per Rule 4(13) of the Karnataka Electricity Reforms (Transfer of Undertakings of KPTCL and its Personnel to Electricity Distribution and Retail Supply Companies) Rules, 2002, notified by the Government on 31.05.2002, the State Government is liable for funding the pension and gratuity liability of existing pensioners as on the effective date of Second Transfer Scheme.

c) The Government, as per its order dated 19.12.2002, has adopted "pay as you go" approach to meet the pension and gratuity requirements of existing pensioners on the effective date of second transfer Scheme. With this arrangement, the GoK is liable to meet the pension and gratuity requirement of existing pensioners as noted above. **Hence, this liability cannot be passed on to the consumers, through tariff.**

In view of the above, the Commission is unable to accept the application for approval of additional ARR towards pension and gratuity of the said pensioners. Accordingly, the said application stands disposed of.

CHAPTER – 6

TRANSMISSION TARIFF FOR FY17-19

6.0 KPTCL's Submission:

KPTCL in its application dated 30th November, 2015 has furnished the ESCOM wise transmission capacity as follows:

TABLE - 6.1
ESCOM Wise Transmission Capacity From FY-17 - 19 – KPTCL's Submission

Company	Capacity in MVA			Capacity in MW		
	FY17	FY18	FY19	FY17	FY18	FY19
BESCOM	11445	12945	13445	9728	11003	11428
MESCOM	1900	1900	1900	1615	1615	1615
CESC	2650	2650	2850	2253	2253	2423
HESCOM	4705	4705	4905	3999	3999	4169
GESCOM	3100	3100	3100	2635	2635	2635
TOTAL	**23800**	**25300**	**26200**	**20230**	**21505**	**22270**

Considering the proposed ARR for FY17-19 and gap in revenue for FY15, KPTCL has projected the transmission tariff for the control period as follows:

TABLE – 6.2
Transmission Charges-KPTCL's Submission

Amount in Rs. Crores

Particulars	FY17	FY18	FY19
Transmission Capacity in MW	20230	21505	22270
Net ARR - (A)	**2929.96**	**3487.87**	**3841.07**
Add: Gap of FY15	204.06	-	-
Total Revenue Requirement (A+B)	3134.02	3487.87	3841.07
Transmission Tariff **(in Rs./MW/Month)**	129100	135157	143731

Based on the above transmission tariff, KPTCL has proposed the following transmission charges to be collected from ESCOMs during the Control Period FY17-19.

TABLE – 6.3

ESCOM Wise Proposed Transmission charges – KPTCL's Submission

Amount in Rs.Crores/Month

Company	FY17	FY18	FY19

	Transmission Capacity in MW	Transmission Charges Rs.Crores per Month	Transmission Capacity in MW	Transmission Charges Rs.Crores per Month	Transmission Capacity in MW	Transmission Charges Rs.Crores per Month
BESCOM	9728	125.58	11003	148.71	11428	164.26
MESCOM	1615	20.72	1615	21.82	1615	23.21
CESC	2253	29.09	2253	30.45	2423	34.83
HESCOM	3999	51.62	3999	54.05	4169	59.92
GESCOM	2635	34.01	2635	35.85	2635	37.87
TOTAL	**20230**	**261.02**	**21505**	**290.88**	**22270**	**320.09**

Commission's Analysis and Decision:

The Commission has approved the standard "Transmission Agreement" to be entered between KPTCL and ESCOMs / long term transmission network users. Accordingly, KPTCL has entered into Transmission Agreements with the ESCOMs.

The Commission in its preliminary observations had observed that there is no transmission capacity addition proposed in MESCOM & GESCOM areas for three years (FY17-19), CESC and HESCOM for two years (FY17-18). KPTCL was directed to clarify as to whether these ESCOMs do not require transformer capacity addition even though the consumer demand is projected on normative growth and if so, whether the existing capacity is sufficient enough to cater to the future load growth.

KPTCL in its replies to the preliminary observations has stated that the transformer capacity at 220 KV voltage level available in each ESCOMs is sufficient to meet the projected peak demand. The load growth in the case of HESCOM, MESCOM and CESC areas is marginal and could be met with the existing capacity. It is also stated that the capacity additions envisaged in these ESCOMs are expected to come up only after the control period FY17-19.

Considering, KPTCL's proposals, the ESCOM wise transmission capacity in MW for the control period FY17-19 is as follows:

TABLE – 6.4

Approved Transmission capacity in MW

Name of ESCOM	FY17	FY18	FY19
BESCOM	9728	11003	11428
MESCOM	1615	1615	1615
CESC	2253	2253	2423
HESCOM	3999	3999	4169
GESCOM	2635	2635	2635
TOTAL	**20230**	**21505**	**22270**

As per the approved ARR as detailed in the preceding Chapter, the approved Transmission tariff for the control period is as follows:

TABLE – 6.5

Approved Transmission Charges payable by ESCOMs for FY17

Particulars	Transmission Capacity Allocation in MW	Transmission charges Rs. Crores per annum	Transmission charges Rs. Crores per Month
BESCOM	9728	1487.22	123.94
MESCOM	1615	246.90	20.58
CESC	2253	344.44	28.70
HESCOM	3999	611.37	50.95
GESCOM	2635	402.84	33.57
TOTAL (MW)	**20230**	**3092.77**	**257.73**

TABLE – 6.6

Approved Transmission Charges payable by ESCOMs for FY18

Particulars	Transmission Capacity Allocation in MW	Transmission charges Rs. Crores per annum	Transmission charges Rs. Crores per Month
BESCOM	11003	1622.58	135.21
MESCOM	1615	238.16	19.85
CESC	2253	332.24	27.69
HESCOM	3999	589.72	49.14
GESCOM	2635	388.58	32.38
TOTAL (MW)	**21505**	**3171.28**	**264.27**

TABLE – 6.7

Approved Transmission Charges payable by ESCOMs for FY19

Particulars	Transmission Capacity Allocation in MW	Transmission charges Rs. Crores per annum	Transmission charges Rs. Crores per Month
BESCOM	11428	1781.99	148.50
MESCOM	1615	251.83	20.99
CESC	2423	377.82	31.49
HESCOM	4169	650.08	54.17
GESCOM	2635	410.88	34.24
TOTAL (MW)	**22270**	**3472.60**	**289.38**

The monthly transmission charges payable for the control period FY17-19 are as follows:

TABLE – 6.8

Approved monthly transmission charges for FY17-19

Year	Transmission Charges
FY17	Rs.127400 / MW / Month
FY18	Rs.122889 / MW / Month
FY19	Rs.129943 / MW / Month

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

TABLE – 6.9

Approved transmission charges for short term

Open Access consumers for FY17-19

Transmission Charges (Rs/MW)	FY17	FY18	FY19
More than 12 hrs & upto 24 hrs in a day in one block	1047.13	1010.05	1068.02
More than 6 hrs & upto 12 hrs in a day in one block	523.56	505.02	534.01
Upto 6 hrs in a day in one block	261.78	252.51	267.01

The tariff determined above for long-term and short-term open access is applicable to all the ESCOMs and all other open access customers excluding developers of Renewable energy sources who generate and supply within the state (Intra State). Such renewable energy generators shall continue to pay charges as per the existing orders of the Commission.

The charges determined above are applicable for use of the transmission system only. In case 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.

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 determines and notifies the transmission tariff of KPTCL for FY17-19 as stated in Chapter – 6 of this Order.**

2. **The tariff determined in this order shall come into effect from 1st April, 2016.**

3. **This Order is signed dated and issued by the Karnataka Electricity Regulatory Commission at Bengaluru this day, the 30th March 2016.**

Sd/-	**Sd/-**	**Sd/-**
(M.K.Shankaralinge Gowda)	**(H.D.Arun Kumar)**	**(D.B.Manival Raju)**
Chairman	**Member**	**Member**

APPENDIX

COMMISSION'S DIRECTIVES AND COMPLIANCE BY THE KPTCL

The Commission, in its Tariff Order dated 2th March, 2015 and in the earlier Tariff Orders under the MYT framework, had issued the following directives for compliance by the KPTCL. The compliance is discussed in this section.

1. Reactive Power compensation and restoration of failed Capacitors:

The Commission had taken note of the availability of 3913.61 MVAR capacitors in the KPTCL system against the installed capacity of 5588.32 MVAR. The Commission therefore had directed the KPTCL to develop an action plan for restoration of failed capacitors immediately, and submit a monthly status report.

Compliance by the KPTCL

The details of failed capacitors as at the end of September, 2015 and the action plan to restore the same has been submitted to the Commission vide letter No: KPTCL/36/4281-15/265-69 dated 25.11.2015. The status of implementation of the action plan for restoration of failed capacitors is also furnished in Annexure IV. Further, a provision of Rs.410 lakh has been made in the General Budget of the KPTCL for the FY16 for replacement of faulty capacitors.

The Zone wise abstract of the same is furnished hereunder:

SL No	Transmission Zone	Failure of Capacitor units in MVAR)	Total MVAR capacity not in service	Remarks/ Targeted date of completion
1	Bengaluru	139.368	111.944	All the failed Capacitors units will be serviced by June, 2016
2	Tumakuru	244.616	221.38	All the failed Capacitors units will be serviced by December, 2016
3	Hassan	167.2	145.05	All the failed Capacitors units will be serviced by December, 2016
4	Mysuru	96.928	53.866	All the failed Capacitors units will be serviced by December, 2016
5	Bagalkote	356.196	335.868	All the failed Capacitors units will be serviced by March, 2017
6	Kalaburagi	336.996	259.136	All the failed Capacitors units will be serviced by March, 2016
Total		**1341.304**	**1127.244**	

Commission's Views

The Commission notes that many of the capacitors installed in various substations are out of service. It is necessary that the KPTCL shall consider it important to not only commission all the capacitors with adequate capacity but also to maintain them in a healthy condition in the transmission system so that the objective of effective reactive power management is achieved to facilitate efficient transmission of power viz., reduction of transmission losses, improvement in bus voltages and reduction/avoidance of payment of reactive energy charges to the CTU. The Commission further notes that the targeted time for restoration / replacement of failed capacitors indicated in the compliance report as June, 2016, December, 2016 and March 2017, is too long, which shall be shortened in the overall interest of maintaining an efficient transmission system.

Further, the SLDC is directed to monitor the functioning of capacitor banks installed in the transmission system for grid management and submit monthly reports to the Commission.

The Commission, therefore, reiterates its directives that the KPTCL shall restore all the failed capacitors under an action plan before July, 2016 and thereafter submit a monthly status report to the Commission regularly.

2. Transmission System Availability (TSA) – Monthly Report:

The Commission had directed that the KPTCL shall submit the monthly reports of Transmission System Availability duly certified by the SLDC with effect from March, 2015.

Compliance by the KPTCL:

The transmission system availability for the financial year ending 31.03.2015 duly certified by the SLDC has been submitted to the Commission vide letter No: KPTCL/B36/21449/2015-16/153, dated 03.08.2015.

Further, the transmission system availability for the period from April to September, 2015 duly certified by the SLDC was submitted to the Commission vide letters B36/21445/212, dated 10.09.2015 and KPTCL/B36/21474/304, dated 18.12.2015. It was informed by the KPTCL that, the computation of transmission system availability for the period from October to November 2015 is under process and the same will be submitted to the Commission shortly.

Commission's Views:

The Commission notes that the transmission system availability for the FY15 and the FY16 (up to September, 2015) has been submitted by the KPTCL. It is observed that the transmission system availability submitted by the KPTCL for the FY15, had some data gaps and inconsistencies as far as transmission system elements are concerned. However, as per the revised computation of transmission system availability submitted by the KPTCL, the Commission has reckoned the transmission system availability achieved by the KPTCL for the FY15 at 99.5 per cent which is more than the target availability of 98 per cent. It is necessary that the KPTCL, henceforth, shall submit the data to the Commission after proper scrutiny to ensure that correct transmission system availability is reckoned for the State.

During the review meetings held in the Commission, the ESCOMs have reported that the delay in restoration of some of the failed power transformers in the substations, has actually affected the transmission system availability to the area catered by such transformers, which needs to be addressed within a shortest possible time in order to maintain continuity of power supply to the consumers. The Commission directs the KPTCL to take necessary action to maintain transmission system elements in a healthy condition by carrying out maintenance works as per the schedule, conduct monitoring of substation equipment and life assessment tests for the old equipment, in the substations to ensure reliability in power supply.

The Commission reiterates that the KPTCL shall submit the monthly reports of Transmission System Availability duly certified by the SLDC, regularly to the Commission.

3. Directive on Management Information System- MIS:

The KPTCL had been decided to improve its Management Information System in the next filing to give greater details and explain the basis for all the projections indicating the sources of data and the method of estimating projected values. The Commission had noted that the progress in MIS needs improvement, as it had resulted in the KPTCL furnishing inconsistent data at different points of time.

The Commission, besides reiterating its earlier directives, had directed the KPTCL to furnish consistent data on time regarding the following:

i) Details of Transmission Losses
ii) Voltage-wise Losses
iii) Details of capex as per formats prescribed by the Commission
iv) Implementation of Intra-State ABT

The Commission had directed the KPTCL to furnish the status of implementation of the Intra-State ABT. Further, the Commission had also directed the KPTCL to furnish the ESCOM-wise UI charges to ensure that the cost of over drawal of power at frequencies below the permissible band, should be borne by the respective ESCOMs**.**

Compliance by the KPTCL

As directed, the KPTCL has submitted the compliance on implementation of Intra-State ABT to the Commission vide letter No: KPTCL/B36/124, dated 11.07.2014. The Commission was informed that Intra-State ABT bill (CGS portion) is being sent to the ESCOMs from 01.04.2013 and accordingly, for the current year 52 bills have been sent.

It was further submitted that the system is configured to add the generators into the Intra-State ABT ambit at any point of time as the dynamic scheduling is in place. As regards the directive that the procuring of metering infrastructure by the BESCOM for fixing the boundary meters between the ESCOMs shall be completed before the end of August 2013, the BESCOM vide their e-mail dated 21.12. 2105, has stated that tender was called twice and the same has been dropped. Further, as regards obtaining concurrence of all the ESCOMs on the proposed methodology adopted by the SLDC for implementation of Intra-State ABT, the CESC and GESCOM have given their concurrences; whereas other ESCOMs are yet to concur on this. Further, it is submitted that the weekly bills are being generated and the same are being sent to the Commission and also to the ESCOMs since April, 2013.

Commission's Views

It is observed by the Commission that the KPTCL and the ESCOMs have not implemented the Intra-State ABT in the State despite agreeing to the same in the several review meetings held in the Commission and also continuous follow up by the Commission. There has been an inordinate delay in the implementation of Intra-State ABT in the State. It is noted that the KPTCL/ESCOMs have only conducted the mock exercises at 220 kV level but failed to implement the Intra-State ABT regime fully in the State with the seriousness that this matter deserves. It is also seen that only the CESC and the GESCOM have concurred on the proposed methodology to be adopted by the SLDC for implementation of Intra-State ABT, whereas the other ESCOMs are yet to give their concurrence. The KPTCL shall follow up with the ESCOMs which have not intimated their concurrence and expedite action in this regard.

It is imperative to mention here that the implementation of Intra-State ABT in the State would lead to efficient management of power generation, supply, distribution and use. Therefore, this discipline needs to be brought in immediately by implementing the Intra-State ABT in the State.

The Commission directs the KPTCL and the ESCOMs to take immediate measures to achieve full implementation of Intra-State ABT and report compliance thereon to the Commission within one month from the date of this Order and also report the status/progress thereafter every month in this regard.

4. Directive on Energy Audit

The submission had directed that metering plan for energy audit of the KPTCL grid system, voltage level wise such as 400 KV, 220 KV etc., shall be prepared and submitted to the Commission. The work of procurement of metering equipment with accessories and their installation shall also be completed. Further, the KPTCL shall ensure that accuracy class of meters match with that of CT/PT so as to measure the parameters accurately. The interface metering system shall be in conformity with the CEA (Installation and Operation of Meters) Regulations, 2006 and its amendments from time to time.

The Commission had directed the KPTCL to furnish voltage-wise losses on a monthly basis. Further, the KPTCL was directed to maintain the entire Interface metering system in a healthy condition, as accurate readings of the meters are required to be recorded for accurate energy audit/accounting purpose and this is also one of the sound practices to be followed by any power transmission utility.

Compliance by the KPTCL:

Month wise, voltage wise transmission losses for the year 2014-15 has already been furnished to the Commission vide letter No: KPTCL / B36/21458/2014-15/15/101, dated 18.06.2015. Further, the provisional transmission losses and voltage wise losses for the period from April to September 2015, have been sent to the Commission vide letter Nos: KPTCL / B36 / 21458 / 2015-16 / 177-180, dated 25.08.2015 and KPTCL / B36 / 21458 / 2015-16 / 223, dated 19.12.2015. The computation of the same for the period from October to November, 2015 is in process.

Further, in order to ensure more energy flow in the 400 kV circuits to reduce the losses, the KPTCL has drawn up long term plans to construct 2,000 circuit km of 400 kV lines, out of which 700 circuit km has already been tendered. However, the transmission losses are within the limits fixed by the Commission.

Commission's Views:

The Commission notes that the KPTCL has not furnished the voltage-wise losses on a monthly basis regularly; however, it has submitted the consolidated figures for the FY15. The KPTCL needs to furnish the voltage-wise losses on a monthly basis regularly to the Commission.

Further, the KPTCL needs to analyse the losses in the transmission system on the basis of energy audit conducted and initiate remedial measures to bring down the loss levels further downwards.

The Commission reiterates its directive to the KPTCL to furnish voltage-wise losses on a monthly basis, regularly.

5. Directive on Quality of Service:

The Commission had directed KPTCL shall take all measures to improve the Quality of Service i.e., reduction in interruptions and maintenance of good voltage and frequency. The KPTCL shall display on its website the details of interruptions of major substations and lines with maximum and minimum voltage at station bus of each substation on a monthly basis.

The Commission had directed KPTCL to take note of the permissible frequency band for operation of the grid between 49.80 Hz and 50.20 Hz as per the IEGC (first amendment) Regulations of the CERC, dated March 5, 2012. Also, as per the decision taken in the meeting of the Forum of Regulators (FOR) held during June 11 & 12, 2009, the penal UI charges for any over drawal will not be allowed to be passed on to the consumers through tariff. Any such penal charges have to be borne by the ESCOMs from their own finances. In the light of this, the KPTCL, through SLDC/ALDCs, shall take necessary steps to avoid over drawal from the Southern grid when frequency level goes below 49.80 Hz to ensure that payment of additional UI charges is avoided.

Compliance by the KPTCL:

The Relay Testing wing of the KPTCL has taken measures for auditing of protective system. Protection audit was carried out in 26 substations of 220kV class during November – December 2012 as per the directions of the MoP through SRPC and the auditors had pointed out various observations during the audit. The substation wise observations on protection audit and the latest status of implementation are detailed in Annexure I & II. Further, as per the directions of the MoP, GoI, SRPC has insisted that the constituents to take up the work of attending to observations made during the protection audit; likelihood of financial assistance from the MoP for such works was explored by the SRPC.

Accordingly, the DPR is prepared for Renovation and Up-gradation of protection systems to suit the latest protection standards/guidelines/ recommendations of protection audit in the existing 93 substations of 220 kV and 400 kV class amounting to Rs.77.46 Crores, covering the following works:

a) Providing Main–II numerical distance relays in place of backup over current (OCR) and earth fault (EFR) relays for protection of existing 220kV lines.
b) Providing / maintaining dual DC sources for protection of all 220 kV and above voltage equipment.
c) Providing GPS synchronising equipment, event logger and disturbance recorder facility for all 220 kV class substations.
d) Providing line CVTs and utilizing it for protection in case of earlier constructed substations.
e) Providing Numerical Bus Bar protection scheme to match the existing bus configuration in old substations wherever bus bar protection is not available and replacement of faulty/old version bus bar protection schemes wherever necessary.
f) Replacement of age old PLCC equipment for ensuring the healthiness of carrier protection to all 220kV lines.
g) Replacement of age old equipment such as CTs, CVTs, LAs wherever necessary.
h) Providing / maintaining spare LAs and CVTs in 400 kV substations.
i) Any other works identified at particular substation based on protection audit recommendations.

It is submitted by KPTCL that, the above DPR was furnished to the NLDC on 26.08.2014, which is the nodal agency for disbursement of PSDF fund. As per the Regulations, 90 per cent of the project cost would be eligible for funding from PSDF as grants. The project proposal as stipulated by the PSDF disbursement guidelines and the additional information sought by the NLDC were furnished subsequently.

Meanwhile, the KPTCL had invited tender for execution of the R&U project during January, 2015. The technical bid was opened on 20.02.2015. The price bid was opened on 16.06.2015. The same was presented before the board of directors in the meeting held on 14.07.2015 and was approved.

It was confirmed by the NLDC during August, 2015, that funding under PSDF will not be disbursed to the utility if that utility has already awarded the work before the approval of the PSDF by them. Due to this issue, the LoI was put on hold, though the tender was finalised during August, 2015 itself.

Further, the scheme furnished by the KPTCL was discussed in the 14th Techno Economical Subgroup meeting held on 28.09.2015 and the 10th Appraisal Committee meeting held on 17.11.2015. Subsequently, the Appraisal Committee forwarded the same to the CERC for concurrence. The concurrence of the CERC for the scheme furnished by the KPTCL and formal approval for issue of LoI was received on 17.12.2015. Issue of LoI and further execution of the works identified for attending protection audit will be taken up by the KPTCL. The execution time finalised for this project is 15 months from the date of award, as the works relate to 93 substations scattered throughout the State and also many works require planned outages.

Further, the SLDC is adhering to the IEGC norms as amended from time to time for grid operation.

Commission's Views:

The Commission notes that the KPTCL has taken various measures for protection audit of its transmission system. The works planned under the protection audit duly covering all the transmission zones shall be expedited to ensure safe grid management in the State and compliance reported thereon to the Commission.

Further, the SLDC shall ensure that grid frequency range from 49.90 Hz to 50.02 Hz as per the IEGC norms is maintained. The Commission reiterates its directive to adhere to the norms of IEGC as amended from time to time in grid operation.

Further, the Commission notes that the KPTCL has not submitted the compliance with regard to displaying on its web site the details of interruptions occurred in the transmission system with maximum and minimum voltage at station bus of each substation on a monthly basis. The KPTCL is directed to report compliance in this regard to the Commission regularly every month.

6. Directive on Capital Works Programme:

The KPTCL was directed to:

a) To submit the details of capex actually incurred and capitalisation of assets in the formats already prescribed by the Commission to undertake necessary prudence check during Annual Performance Review.

b) To maintain separate accounts with respect to the costs incurred in respect of lines and bays respectively.

The KPTCL is directed to furnish the details in specified formats used in respect of capex incurred to enable the Commission to carry out prudence check during APR. Further, it is directed to maintain separate accounts with respect to the costs incurred for lines and bays.

Compliance by the KPTCL:

The details of the capex for the year 2014-15, as per the prescribed formats, were submitted to the Commission vide letter No: KPTCL/B36/21457/2014-15/253-56, dated 19.10.2015.

Commission's views

The Commission notes that the KPTCL has submitted the details of capex for the year 2014-15, in the prescribed formats and directs the KPTCL to continue to.

i. Submit the details of capex incurred and capitalisation of assets to undertake necessary prudence check during the APR.

ii. Maintain separate accounts with respect to the costs incurred in respect of lines and bays.

7. Directive on Studies conducted:

The Commission has directed the KPTCL to have a fresh look into its manpower requirements keeping in view the technological advancements and the changed organisational set-up [i.e., corporatization].

The Commission in its earlier Tariff Orders had directed KPTCL to complete the manpower studies at the earliest and submit the interim report of ASCI.

Compliance by the KPTCL:

ASCI's final Report was referred to an internal Committee to re-examine the adoptability of the recommendations. The internal Committee has made several field visits and held discussions with the technical personnel in the field and has taken inputs for standardisation of staffing pattern in various field units like, TL & SS divisions, Major Work divisions and related administrative setups. The internal Committee has agreed to furnish its final recommendations on the Study Report in February, 2016. Thereafter, the matter will be placed before the Board of the KPTCL for a decision on acceptance and its implementation.

Commission's Views:

The Commission notes that there has been inordinate delay in finalisation of the ASCI's manpower study recommendations by the KPTCL. The KPTCL is directed to expedite action to finalise this issue and the compliance regarding the same shall be reported to the Commission at the earliest.

The Commission reiterates its directive to the KPTCL to furnish a detailed action plan for implementation of the measures outlined to streamline the operational structure for ensuring optimum utilisation of its manpower and to minimise the costs. The Commission would take into account the effective steps taken by KPTCL in this issue before approving O & M expenses of KPTCL in the subsequent years of the current control period.

8. Directive on prevention of electrical accidents:

The Commission had directed the KPTCL to prepare an action plan to effect improvements in the transmission network and implement safety measures to prevent electrical accidents. Detailed Transmission Line and Sub-Station division wise action plans were to be submitted to the Commission within two months of the Tariff Order.

Compliance by the KPTCL:

The compliance on the measures taken in prevention of electrical accidents has been furnished to the Commission vide letter No: KPTCL/B36/4248/2014-15/124, dated 11.07.2014. Further, Zone wise action plan for prevention of electrical accidents has been furnished to the Commission vide letter No: KPTCL/B36/4248/140, dated 06.08.2014.

Commission's views:

The Commission notes that the KPTCL, with a view to ensure safety and prevention of accidents, has taken up various works for effecting improvements to its transmission system. It is observed that most of the works planned are either in the early stage of estimate preparation or lined up for execution which needs to be expedited to ensure that the rectification of hazardous installations in its transmission network is completed at the earliest to prevent possible accidents to the public. Further, the KPTCL has to conduct regular review of such works and take follow up measures aimed at prevention of electrical accidents. Also, necessary action for continuous awareness on electrical safety aspects including sensitising of its staff is undertaken so that the tempo of safety campaign is maintained.

The Commission reiterates its directive to the KPTCL to regularly submit transmission line and substation wise details of action plan for prevention of electrical accidents.

APPENDIX - 1

Objections related to Tariff Issues KPTCL		
Sl. No.	**Objections**	**Replies by Licensee**
1	KPTCL has indicated different figures of Employee cost and A&G expenses in the Audited account and APR filing. Hence, the same has to be sorted out.	The net employee cost considered for ARR is Rs.753.99 Crores only. Table 18 in Chapter 11 of the Annual Performance Review document shows other Expenses Capitalized as Rs.42.46 Crores. This includes Rs.36.20 Crores, the amount capitalized on account of employee cost. An explanation to this effect is provided in chapter 6, para 6.2, page 28 of APR filing document. The net A & G cost considered for ARR is Rs.58.57 Crores only. Table 18 shows Rs.42.46 Crores as Other Expenses Capitalized. A & G cost capitalized at Rs.6.17 Crores is included in this amount and is deducted in the ARR table 18 along with other capitalization amounts. Explanation to this effect is available in Chapter 6, Para 6.3, Page 29 of the APR document.
	Commission's Views: KPTCL's reply is acceptable.	
2	The income tax paid towards income from other sources should not be included as a pass through in Tariff.	The other income is not a tariff income and hence deducted from the ARR as per the methodology set by the KERC in its tariff orders.
	Commission's Views: The actual Income Tax as per the audited accounts is allowed as a pass through during the Annual Performance Review.	
3	Transmission loss sustained by KPTCL is stated to be less than the approved lower limit of loss for FY15. Hence, this benefit has to be shared between KPTCL and users in	KPTCL has not offered any comments

	the ratio, decided by the Commission.	
	Commission's Views: In the Tariff order such sharing has been ensured.	
4	The auxiliary consumption by KPTCL's substations and offices cannot be considered as transmission loss. The Commission has to determine tariff for billing such auxiliary consumption.	Regarding Auxiliary Consumption, a detailed submission has been made in APR filing for FY15 in the Chapter 9. The Auxiliary consumption is an integral part of transmission activity and hence cannot be considered as sale by BESCOM. However, since KERC has directed BESCOM to file separate petition for determining the charges for Auxiliary consumption, the BESCOM is required to file a petition seeking tariff for auxiliary consumption by the KPTCL. Instead, BESCOM on its own has worked out the charges and deducted the same from regular transmission charges payable to KPTCL which is not correct and amounts to violation of KERC directions.
	Commission's Views: KPTCL's reply is in order.	
5	As the application is not submitted within 120 days before the commencement of financial year, the application is not maintainable.	KPTCL has filed its Annual Performance Review Petition on 27.11.2015 and MYT application on 30.11.2015.
	Commission's Views: KPTCL's reply is in order.	
6	The KPTCL has not indicated any step to improve its efficiency to transfer the benefit of efficiency gains to the consumers. In the absence of any specific gains the application is not maintainable.	The efficiency parameters like the Transmission Loss and System Availability are clearly indicated in the petition filed. KPTCL is maintaining the losses and system availability well within the norms stipulated by the Commission. The Commission will take a view on the incentive to be allowed and sharing of such gains with the ESCOMs

		while issuing the tariff orders.
	Commission's Views: This aspect has been appropriately dealt with in the Tariff Order.	
7	The KPTCL has proposed a transmission tariff of Rs.1,15,668 per MW for FY17, but has not furnished the tariff of previous years and it is difficult to compare the proposed tariff with the earlier tariff.	The details of transmission tariffs approved by KERC for previous 3 years are Rs.95442 for FY14, Rs.98324 for FY15 and Rs.112079 for FY16.
	Commission's Views: KPTCL's reply is in order	
8	Tax component for FY15 is indicated as Rs.21.86 Crores and the same for FY17 is Rs.98.77 Crores. KPTCL needs to explain the reasons for accounting taxation.	The income for FY15 is on actual earnings for the year whereas the income tax for FY17 is a projection based on the projected earnings for the said year.
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order.	
9	KPTCL has failed to furnish the perspective plan, depreciation, advance against depreciation as required under the regulations.	The KPTCL has submitted the Perspective Plan till 2022 to the Commission on 28.12.2013. Details of Depreciation claimed has been provided in the present filing (both in the APR and the MYT in tables, Table 18 and format T 8 for APR and Table 21 and format T 18 for MYT application).
	Commission's Views : KPTCL's reply is acceptable, However KPTCL has sought time for submission of rolling plan studies.	
10	Owing to the inefficiency of the KPTCL, the actual ARR has increased by Rs.270.46 Crores and same should not be passed on to the ESCOMs	Increase in the ARR of the KPTCL is mainly on account of various factors like inflation, interest rates, taxes, depreciation rates.
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order.	
11	The revenue deficit of Rs.204.06 Crores pertaining to the FY15 should not be recovered in FY17 from the ESCOMs and it should be paid by	As per the MYT regulations, the Licensee (KPTCL) is required to file an annual performance review (APR) based on the audited accounts and the Commission will

	Government.	review the claims vis-à-vis the approved numbers. The surplus or the deficit will be carried forward to tariff of ensuing year. This is the MYT frame work. Hence, FY15 deficit of FY15 needs to be considered in FY17
	Commission's Views: This issue is appropriately dealt with in the Tariff Order.	
12	As per section 23 of the Act, the KPTCL should have obtained approval of the Commission for load shedding, but, is resorting to unscheduled load shedding on its own which is adversely affecting the industries.	Instances of Load shedding from the KPTCL's side happens only for regular maintenance of the Station Equipment which is a scheduled Programme, and will be duly notified in newspapers and well in advance. Under unforeseen circumstances like drop in frequency, generation unit outages etc., the KPTCL follows the Grid code.
	Commission's Views: KPTCL's reply is in order.	
13	KPTCL has not provided details of failed capacitors and the expenditure incurred to repair the same.	Details regarding replacement of faulty capacitors has been furnished to the Commission, in KPTCL's response to the Commission's preliminary observations in Annexure 4, page No. 146 to 152. These details are available on the website of KPTCL.
	Commission's Views: KPTCL's reply is in order.	
14	The KPTCL has failed to comply with the directives issued by the Commission.	The KPTCL is continuously working towards improving efficiency of the system, as evident from the fact that, the transmission losses are continuously going down and the system availability is much above the target availability of 98%. As far as compliance to Directives is concerned, the KPTCL is complying to all Directives and it is a continuous process.
	Commission's Views: KPTCL's reply is in order.	

15	The employee expenses are 79.6% R&M and A&G expenses are 20.4% of the total O&M expenses. Total O&M Expenses as per norms i.e., on the basis of per ckt-km of lines and per Bay of actual energized substations should be Rs.663.56 Crores for FY15, Rs.727.42 Crores for FY16 and Rs.816.08 Crores for FY17.	As per Accounting Standard 15, the KPTCL is required to provide for the pension, gratuity and leave encashment benefits as per the actuarial valuation. The numbers shown against these heads are in conformity with the Actuarial Valuation keeping in line with requirements of Accounting Standard 15.
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order	
16	The KPTCL has booked an amount of Rs. 290.34 Crores in its audited financial statements for the FY15 towards Pension and Gratuity contributions and earned leave encashment on ad- hoc basis and no Actuarial valuation report has been furnished. The KPTCL is statutorily required to invest the Pension and Gratuity fund contributions in the interest bearing government securities and bonds. The interest rate on such Government securities and bonds is generally in the range of 7.50% to 8.50% on annual basis. The interest earned on KPTCL's investments from its Pension and Gratuity Fund has not been accounted for. Hence, the allowable O&M expenses will be Rs.586.27 Crores as against Rs.948.87 Crores claimed for 2014-15 and Rs.816.08 Crores as against Rs.1106.02 Crores projected in 2016-17.	The KPTCL makes contribution to separate Trusts called the Pension and Gratuity Trusts. In the absence of any corpus provided for by the Government, at the time of their inception, the Trusts have to invest monies obtained as contribution by the electricity companies including the KPTCL, in order to pay Pension/ Family Pension and Gratuity to the retired officials. Interest earned on such investments do not come into the Account of the KPTCL. Contributions made are expected to meet not only present but future outgoes. In the Tariff Order 2015 dated 02.03.2015, the KERC has treated O&M expenses on account of additional employee costs incurred by the KPTCL due to Pension and Gratuity Contribution (as per existing approved actuarial valuation report) and leave encashment as uncontrollable O&M expenses and has allowed these as a pass through in the tariff. The KPTCL has made

		a detailed submission on the O & M expenses in the APR filing. KPTCL has highlighted that the CERC norms allow O&M expenses of Rs.45.82 lakhs per bay (220KV) whereas, the KERC allows only Rs. 0.91 lakhs/Bay. KPTCL has requested the Commission to revise the norms for this and other reasons mentioned in the APR Filing.
	Commission's Views: This matter has been appropriately dealt with in the Tariff Order.	
17	The KPTCL in Form T17, has submitted the total capitalization for FY15 as Rs.1,098.99 Crores and capital expenditure as Rs.754.25 Crores. The contribution & Grants towards cost of capital assets reveal that the additions during the year i.e., assets created out of consumer contributions and grants are to the tune of Rs.67.44 Crores. KPTCL has claimed a long term loan addition of Rs.1082.73 Crores in Form T-9 in Loans and Debentures and Interest Charges, to claim more loans than capital expenditure for the year. Hence, such excessive loans may be disallowed and a thorough prudence check be conducted by the Commission.	The equity is less and debt component is more than the normative debt/equity ratio of 70:30. For instance, in 2014-15, Government of Karnataka contributed only Rs.20 Crores as equity. However, by efficient financial management, the debt equity ratio of KPTCL is well within industry norms at (2.35) at the end of 31.03.2015. As indicated in Form T9, KPTCL has taken long term loan of Rs.812.73 Crores and short term loan of Rs.270 Crores. Out of Rs.812.73 Crores, Rs.506.88 Crores is used for capital expenditure and Rs.305.85 Crores is used for swapping high cost loans. Total cash outflow towards capital expenditure was Rs.754.25 Crores. Thus, remaining expenditure was incurred out of internal resources and equity.
	Commission's Views: This matter has been discussed in the Tariff Order	

18	The KPTCL has claimed depreciation of Rs.590.93 Crores as per its audited accounts, without factoring the depreciation on account of assets created out of consumer contributions / grants for the FY15 amounting to Rs.40.46 Crores. The same is not in accordance with the Accounting Standard 12 of the Institute of Chartered Accountants. For FY17, KPTCL has claimed a grossed depreciation expense of Rs.780.83 Crores calculated at rate of 5.25% the depreciation withdrawn on assets created out of consumer contributions and grants. As per MYT Regulations, the allowable depreciation is based on the rate of depreciation as specified by the CERC from time to time. As per the CERC depreciation rates, the allowable depreciation expense is lower than what the KPTCL has claimed. The depreciation to the tune of Rs.47.04 Crores ought to be reduced from the gross allowable depreciation. Commission needs to do a thorough prudence check before allowing any amounts towards depreciation.	The CERC Regulations are applicable to Inter State Transmission Utilities. The KPTCL is a State Transmission Utility guided by the Regulations of the State Regulator (KERC). The KERC Regulations do not have provisions such as (Regulations) 27(5) and 27(8) of the CERC (Regulations). The KERC Regulations only specify that the rate of depreciation need to be considered as per the rates notified by the CERC, from time to time. The KPTCL is calculating the Depreciation on its assets in terms of the KERC Regulations. Regarding Depreciation on assets created out of consumer contribution, it may be seen that for FY15 an amount of Rs.40.46 Crores is specifically shown in the account head "Other Income" in note 22 to the Annual Accounts. The entire other income is deducted from the ARR for the year. Hence there is "no unjust enrichment" of the KPTCL. Similarly, in FY17, against gross depreciation of Rs.780.83 Crores, the KPTCL has claimed an amount of Rs.759.73 Crores only, duly deducting an amount of Rs.21.10 Crores towards depreciation on assets created out of consumer contribution.
	Commission's Views: KPTCL's reply is in order.	
19	The KPTCL has claimed interest on both long term loans and short term loans	Detailed submission have been made in the APR filing of the KPTCL for FY15,

	based on actuals for 2014-15, contrary to the Tariff Regulations which provide that interest on working capital is to be allowed on normative basis.	wherein the necessity of allowing interest on short term borrowing vis-à-vis the normative interest on working capital has been put forth. As a good financial practice, short term borrowing is used for working capital management and as a tool for prudent financial management, finally to achieve reduction in overall interest costs.
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order	
20	The Commission had allowed Rs.498.05 Crores towards return on equity for 2014-15 in the MYT order dated 06.05.2013. As against this, the KPTCL has claimed return on equity of Rs.386.84 Crores in truing up for FY15 on the closing balance of share capital, capital reserves and surplus. As held in RP No. 6/14, the approach of the KPTCL to compute the return on equity on the closing balance of share capital and reserves ought to be disallowed. The allowable return on equity is Rs.293.80 Crores as against Rs.386.84 Crores claimed in 2014-15 and is Rs.383.57 Crores as against Rs.462.79 Crores claimed in 2016-17.	The opening balance of share capital as on 31.3.2014 was Rs.1575.32 Crores. During the same year (2013-14) an amount of Rs.424.68 Crores was shown as shares pending allotment. In the same year Rs.75.32 Crores was shown as shares pending allotment under other current liabilities. Thus the total amount available as share capital was Rs.2075.32 Crores during 2013-14 itself. Hence, Rs.2075.32 Crores should be considered as opening balance for the year 2014-15.
	Commission's Views: While KPTCL's reply does not meet the objection raised, the Commission has taken appropriate decision on this issue in its Tariff Order.	
21	KPTCL has claimed Rs.55 Crores towards prior period expenses. The items booked under the prior period expenses are essentially ARR items like O&M expenses,	Note 30 to annual accounts for FY 15, provides details of the items booked under the head "Prior Period Charges".

	depreciation, etc. The same should not be allowed as details of each items is not furnished.	
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order.	
22	The KPTCL has claimed Rs.96.01 Crores towards exceptional items pertaining to reversal of a R.E. subsidy amount booked earlier in 2003-04. The R.E. subsidy does not pertain to transmission business and ought to rejected.	The entire filing is under the provisions of MYT Regulations 2006, amended from time to time. The MYT regulation, 2.4.1(h) & (i) takes care of such items of ARR. Details of these expenses are shown in notes to the accounts. (note 29). The activities carried out for incurring these expenses ultimately aim at benefiting the system at large.
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order.	
23	The KPTCL has claimed an amount of Rs.11.10 Crores in 2014-15 and Rs.13.44 Crores in 2016-17 towards other debits. Such claims extraneous to the Tariff Regulations need to be disallowed.	The entire filing is under the provisions of MYT Regulations 2006, amended from time to time. The MYT regulation, 2.4.1(h) & (i) takes care of such items of ARR. Details of these expenses are shown in notes to the accounts. (note 29). The activities carried out for incurring these expenses ultimately aim at benefiting the system at large.
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order.	
24	The KPTCL has claimed Rs.98.77 Crores towards income tax in 2016-17 which has been calculated by grossing up of the ROE by the MAT rate. The tax component on ROE allowed in the MYT Order dated 06.05.2013 was to the tune of Rs.99.65 Crores applicable for 2014-15. However,	KPTCL is claiming income tax based on the provisions in the MYT Regulations and methodology adopted by the Commission in the tariff orders from time to time. As far the APR is concerned, KPTCL claims the tax on actual basis.

	the actual tax paid in 2014-15 was only Rs.21.86 Crores as per audited accounts. Hence, no claims towards income tax may be allowed upfront in the ARR.	
	Commission's Views: KPTCL's reply is in order.	
25	KPTCL has submitted an amount of Rs.70.67 Crores as other income. This amount also includes the withdrawal of depreciation of Rs.40.46 Crores on assets created out of grants / consumer contribution which has been provided in Note-22 in other Incomes of the audited accounts of FY 2014-15. This amount needs to be factored while computing allowable depreciation. Thus, the balance amount of Rs.30.21 Crores mainly pertaining to rent from staff quarters, rent from ESCOMs and interest on bank deposits ought to be considered as non-tariff income and reduced from the revenue gap being trued up for FY 2014-15. Hence there will be surplus of Rs.457.14 Crores as against a deficit of Rs.204.06 Crores claimed by the KPTCL for FY15.	KPTCL has deducted other income from the ARR both in APR filing and MYT application.
	Commission's Views: This issue has been appropriately dealt with in the Tariff Order.	

The gist of the submissions made during the Public Hearing, held on 26.02.2016.

<table>
<tr><th>Sl. No.</th><th>Objections</th><th>Replies by Licensee</th></tr>
<tr><td>1</td><td>Transmission capacity should be adequate to handle all types of generations and the planning/forecast should be carried out in advance.</td><td rowspan="7">KPTCL’s representatives replied suitably to the points made.</td></tr>
<tr><td>2</td><td>SLDC is not adhering to the merit order dispatch.</td></tr>
<tr><td>3</td><td>Earned leave encashment claimed at more than Rs.100 Crores needs to be verified.</td></tr>
<tr><td>4</td><td>The capex of projects which are delayed for a long time or unexecuted needs to be disallowed.</td></tr>
<tr><td>4</td><td>KPTCL should dismantle the old lines and reuse it elsewhere.</td></tr>
<tr><td>5</td><td>KPTCL and KIADB are not working in co-ordination to take up the works to carried out in KIADB area.</td></tr>
<tr><td>6</td><td>Adequate compensation should be paid for the land and crop loss, in places where the transmission lines are laid.</td></tr>
<tr><td></td><td colspan="2">Commission's Views: The Commission has taken note of the points raised by the public and the replies given by KPTCL, and wherever required made appropriate observation in its Tariff Order.</td></tr>
</table>