

CHAPTER – 1

INTRODUCTION

1.0 KPTCL – A brief Profile of the State Transmission Utility:

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

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

After unbundling and formation of Distribution Companies, the KPTCL was assigned the work of transmission of power from 1st June, 2002 and has been made a Transmission Company which also functions as the State Transmission Utility (STU) in Karnataka. The Distribution business was entrusted to the newly created Distribution Companies (ESCOMs).

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

The KPTCL enables the ESCOMs to serve nearly **231** lakh consumers of different categories spread all over the State covering an area of 1.92 lakh square kilometers. To transmit power from different types of Generation sources as well as from the CTU network, into the widely spread **1116** substations it has **35117** Ckt., kms of transmission lines with voltages of 66 kV and above.

To carry out its functions in a smooth and effective manner, the KPTCL has created six transmission zones, each headed by a Chief Engineer; sixteen circles, each headed by a Superintending Engineer; and forty-seven divisions, each headed by an Executive Engineer. The operation and maintenance of the transmission system in the State is looked after by thirty-two Transmission Line and Substation Maintenance Sub-divisions. Also, there are fifteen Transmission works divisions to carry out the construction activities related to transmission system of the State.

Also, there are four Relay testing Circles covering fourteen relay Testing Divisions for protection, troubleshooting and maintenance of protective relays, metering and testing. These relay testing wings also carry out the pre-commissioning tests of new substations, besides testing of interface meters at regular periods. The Hotline Circles are established with Hotline divisions and subdivisions to facilitate live line work for speedy addressing of the maintenance and troubleshooting works.

1.1 KPTCL at a glance:

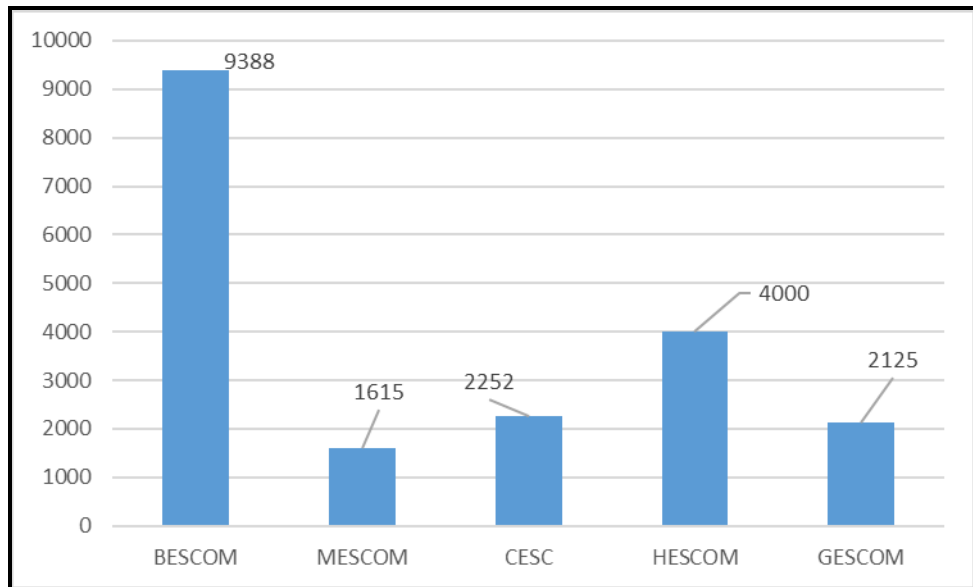
Sl. No	Particulars (As on 31-03-2017)		2016-17
1.	Generation Capacity (connected to Transmission System)	MW	19004.33
	a) KPC Hydro and Thermal	MW	7915
	b) CGS (Karnataka Share)	MW	2937
	c) NCE, IPPs and Others	MW	7078.33
2.	No. of Receiving Sub-Stations /Length of Tr. Lines	Nos./CKms.	
	a) 400 kV	Nos./CKms.	4/3134.75
	b) 220 kV	Nos./CKms.	99/11078.34
	c) 110 kV	Nos./CKms.	404/10342.38
	d) 66 kV	Nos./CKms.	620/10563.87
3.	Assets as at the end of FY17	Rs. in Crores	15004
4.	Total employees:		
	a) Sanctioned	Nos.	16095
	b) Working	Nos.	10196
5.	Demand Charges for Transmission of Power to ESCOMs (FY17), wheeling and Miscellaneous Charges	Rs. in Crores	3204.97
6.	Collection of transmission charges	Rs. in Crores	2823.14

Source: KPTCL –SLDC load curve, KPTC Website, APR Filing and Annual Accounts

1.2 Transmission capacity of KPTCL in FY17:

The total transmission capacity in the State was 19380 MW during FY17 and the ESCOM-wise transmission capacity for FY17 is as follows:

ESCOM WISE TRANSMISSION CAPACITY IN MW – FY17



Source: KPTCL Replies to Preliminary Observations