

**Subject 10: Establishing 1x10 MVA, 110/11 kV sub-station at Kanasur in Siddapura Taluk, Uttara kannada District.**

**Sketch-BGKT-3**

**Proposed by: CEE, Bagalkot Transmission Zone.**

**Preamble:**

Presently, Kanasur, Herur, Heggarani, Ajjibala, Marigadde and their surrounding areas are being fed from 2 numbers of 11 kV feeders each emanating from 110 kV Sirsi sub-station and 110 kV Siddapura sub-station.

The installed capacity of 110/11 kV Sirsi sub-station is 1x10 MVA, 110/12.1 kV(PL-7.2 MW, LF-0.84) & 1x10 MVA, 110/11 kV(PI-7.2 MW, LF-0.84) Transformers and is being fed from 220/110/11 kV Esle sub-station by 110 kV DC line with Dog & Coyote conductor for a distance of about 10 kms, the peak load recorded on this DC line is 75.8 MW. The total connected load of 110 kV Sirsi sub-station is 55496 kVA on 11 kV reference.

The installed capacity of 110/11 kV Siddapura sub-station is 1x10 MVA & 1x5 MVA 110/11 kV (PL-6.8 MW, LF-0.8) Transformers and is being fed from MGHE Jog generating station by LULOing one circuit of 110 kV Jog-Sirsi DC line with Dog & Coyote conductor, the peak load recorded on this DC line is 61 MW. The total connected load of 110 kV Siddapura sub-station is 63740 kVA on 11 kV reference.

The installed capacity of 220/110/11 kV Esle sub-station is 1x50 MVA, 220/110 kV(PL-43.8 MW, LF-1.0) Transformer and is being fed from MGHE power station by 220 kV DC line with Drake conductor for a distance of about 54 kms, the peak load recorded on this line is 336 MW.

The 11 kV feeders emanating from 110 kV Sirsi & 110 kV Siddapura sub-stations are overloaded. The length of 11 kV feeders is upto 64 kms. The power supply to these areas is being arranged in spells. The 11 kV feeders are having Rabbit & Weasel conductor and passing through forest area.

The details of 11 kV feeders feeding Kanasur, Herur, Heggarani, Ajjibala, Marigadde and their surrounding areas is as follows

Sl. No.	Name of the sub-station	Name of 11 kV feeders	Length of the line (in Kms)	Connect ed Load (kVA)	Peak Load in Amps	AES in MUs	VR %	AEL in MUs
1	110/11 kV Siddapura	Kansur	43.35	5069	81.00	3.78600	21.60	0.34305
		Harsikatta	54.15	6841	85.00	3.01820	30.69	0.80052
2	110/11 kV Sirsi	Marigadde	28.00	1000	30.00	2.49210	9.26	0.18492
		Sampakan da	64.00	6185	74.00	5.13120	24.99	1.01525

The length of 11 kV Harsikatta feeder is about 64 kms (Rabbit-39.05 Kms, Squirrel-15.01Kms). Load on this feeder comes after a distance of 28 Kms from 110/11 kV Siddapura sub-station end. The length of 11 kV Kanasur feeder is about 43.34 kms (Rabbit-37.94 Kms,