

TECHNICAL JUSTIFICATION FOR 132 kV GSS AT CHORDI (DIST- BANSWARA)

Presently, 33 kV Sub-Station at Chordi and 33 kV substations in nearby area are being fed from 132 kV GSS Bagidora with the help of the following 33kV feeder. The existing system parameters are as under:

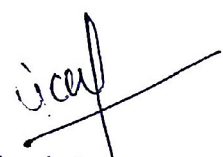
S. No.	Name of the 33kV Feeders	Line Length (In kMs.)	DTC (in MVA)	%Voltage Regulation	AEL (LUs)	% Demand Losses
1	132 kV GSS Bagidora- Chordi- Chanderwara- Mandokla Mogji- Khodalim- Gangartalai- Khuti Narji- Chikhlipuna- Anandpuri	40	25.20	56.30	64.7355	27.0588
	TOTAL		25.20		64.7355	

From the above table it is quite evident that the % Voltage Regulation and % Demand Losses in the above feeder are beyond the permissible limits and system requires improvement.

To meet out the load growth in the area and to improve the existing system parameters it is proposed to create 132 kV GSS at **Chordi** of capacity 20/25 MVA which is at the load center, by making **LILO of 132 kV S/C Bagidora- Mahi Phase-2 line (12 KM D/C)**. With the creation of above GSS the following 33kV feeders are proposed to be fed from this GSS and the estimated system parameters shall be as under:

S. No.	Name of the 33kV Feeders	Line Length in kMs.	DTC in MVA	%Voltage Regulation	AEL Lus	% Demand Losses
	<u>Proposed 33kV system</u>					
1	132 kV GSS Chordi- Chordi- Chanderwara	13	6.30	4.60	0.40208	0.67227
2	132 kV GSS Chordi- Gangartalai- Khodalim- Khuti Narji	22	9.45	5.80	4.15487	4.63119
3	132 kV GSS Chordi- Madkolamogji- Chikli- Anandpuri	23	9.45	3.90	3.61876	4.03361
	Total		25.20		8.17571	

A total load of **25.20 MVA** is proposed to cater from this GSS and after the creation of this GSS, the system parameters will also come down within permissible limits which is quite evident from the above table. The estimated saving in energy is observed as **56.56 LUs** per annum.


(Pankaj Agarwal)
Executive Engineer (T&C)
R.R.V.P.N.L., Chittorgarh (Raj.)