Annex - I

TAMILNADU TRANSMISSION CORPORATION LTD.
(Subsidiary of TNEB Ltd.)

From

S.Akshayakumar,B.E.,M.B.A.,
Director/Transmission Projects,
TANTRANSCO,
144, Anna Salai,
Chennai -2.

To

The Member (Power System),
Central Electricity Authority,
Sewa Bhavan, R.K.Puram,
New Delhi 110 066.

Lr.No.CE/Plg&R.C/SE/SS/EE1/AEE1/F.36th SCM /D.454/2013 dt.25.11.13

Sir,

Sub: 36th Standing Committee on Power system Planning of Southern Region held on 04.09.2013 at New Delhi – Minutes of the Meeting - reg.

****

Our observations on the Minutes of the Meeting of the 36th Standing Committee on Power System Planning of Southern Region held on 04.09.2013 at New Delhi is indicated below:

Contingency Plan for evacuation of Power from ILFS (2x600 MW).

In the minutes of the meeting, it has been stated that the following has been agreed for **Contingency Plan for evacuation of Power from ILFS (2x600 MW).**

(a) LILO of 2nd circuit of Neyveli - Trichy 400kV D/C line (LILO of 1st circuit already under implementation) would be carried out at Nagapattinum pooling station as contingency plan, by CTU.

(b) Strengthening of Neyveli TS-II to Neyveli TS-I expansion link with higher capacity conductor as contingency plan, by CTU.

(c) ILFS would be allowed to evacuate through these lines only if there are margins available in the grid.

In this connection it is to be stated that, allowing ILFS to evacuate the power by making LILO of both lines (i.e., NLC TS2 – Alundur and NLC TS1 Exp – Alundur) will over load the existing 400kV lines at Neyveli complex. Hence, it is suggested that LILO of only one circuit Neyveli - Trichy 400kV D/C line as agreed earlier to provide start up power to the plant may be carried out.

The evacuation system for the ILFS generation, Nagapattinum - Salem 765kV S/C line & Salem - Madhugiri 765kV S/c line may be speeded up to evacuate power from IL&FS.

25/4/13

(S.Balaguru)
Chief Engineer/Planning & R.C
For Director/Transmission Projects

Copy to DGM/Power grid Corporation of India Limited,
Saudamini, plot No.2, Sector – 29,
Gurgaon,
Haryana -122001.

Annex - 2.1

Er. P.Annadurai, B.E.,
Director/Distribution,
TANGEDCO,
X Floor, Eastern Wing,
N.P.K.R.R.Maaligai,
144, Anna Salai, Chennai – 600 002.

Phone Off: 28520057
Fax:044- 28516362
E_mail :md@tnebnet.org
http://www.tneb.org

To
The Member (Power System)
Central Electricity Authority,
Sewa Bhavan, R.K. Puram,
New Delhi 110 066.

Lr.No.CE/Plg &RC/SE/SS/EE1/AEE1/F.stg. com/D 194 /2014 dt 19 .06.14

Dear Sir,

Sub: Agenda points to be included in the forthcoming Standing Committee Meeting on Power System Planning for southern Region– regarding.

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1.0 A Joint study has been conducted on 5th – 7th of March, 2014 with CEA and PGCIL at Gurgaon to finalise the Associated Transmission Schemes (ATS) for the following proposed power projects in Tamilnadu.

i. In Chennai area by TANGEDCO:

a. ETPS Expansion	-	1x660 MW
b. Ennore SEZ (NCTPS Stage–IV)	-	2x660 MW
c. ETPS Replacement	-	1x660 MW
d. NCTPS Stage–III	-	1x800 MW
		3440 MW

ii. OPG Power Generation Pvt. Ltd:
2x 360 MW in Gummidipoondi area. 720 MW

iii. In Southern part of TN by TANGEDCO:

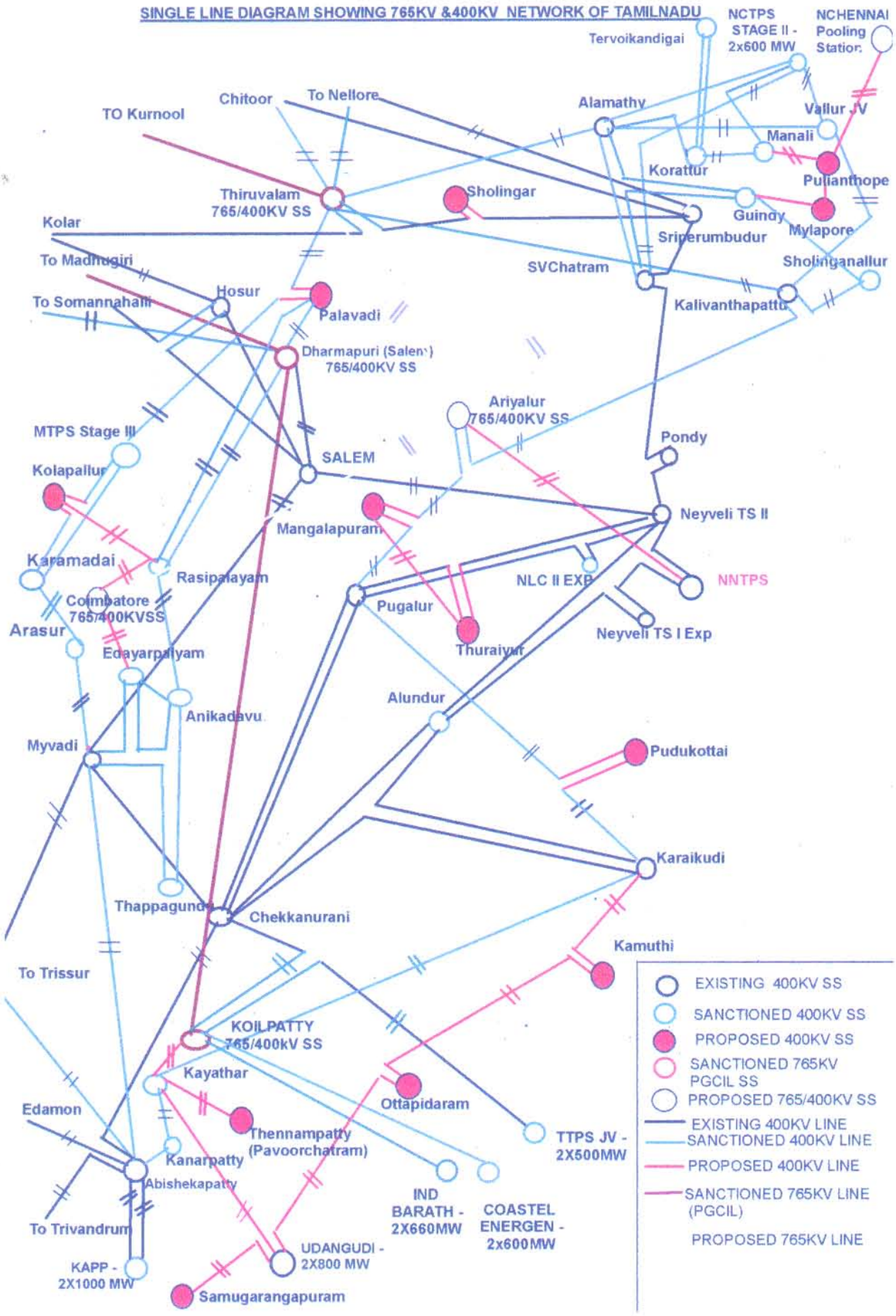
a. Udangudi Stage I	-	2x660 MW
b. Udangudi Stage II	-	1X800 MW.
		2120MW

2.0 Further, 11 numbers of 400/230kV substations are proposed throughout Tamilnadu as System Strengthening and Load flow study has been conducted for establishment of the substations also.

Based on the study results, a proposal has been evolved and it is enclosed as Annexure to put up as agenda in the Standing Committee Meeting on Power System Planning of Southern Region, for approval and clearance.

(K.Viji)
Chief Engineer/Planning & R.C
(For Director/Distribution)

Annex -2.2


SINGLE LINE DIAGRAM SHOWING 765KV &400KV NETWORK OF TAMILNADU
Tervoikandigai
NCTPS STAGE II - 2x600 MW
NCHENNAI Pooling Station
Chitoor
To Nellore
TO Kurnool
Alamathy
Vallur JV
Manali
Korattur
Puliianthope
Thiruvalam 765/400KV SS
Sholingar
Guindy
Mylapore
Kolar
Sriperumbudur
To Madhugiri
SVChatram
Sholinganallur
Hosur
To Somannahalli
Palavadi
Kalivanthapattu
Dharmapuri (Salem) 765/400KV SS
Ariyalur 765/400KV SS
MTPS Stage III
Pondy
SALEM
Kolapallur
Neyveli TS II
Mangalapuram
Karamadai
Rasipalayam
NLC II EXP
NNTPS
Coimbatore 765/400KVSS
Pugalur
Arasur
Thuraiyur
Neyveli TS I Exp
Edayarpalyam
Alundur
Anikadavu
Myvadi
Pudukottai
Karaikudi
Thappagundu
Chekkanurani
Kamuthi
To Trissur
KOILPATTY 765/400kV SS
Kayathar
Ottapidaram
Edamon
Thennampatty (Pavoorchatram)
TTPS JV - 2X500MW
Kanarpatty
Abishekapatty
IND BARATH - 2X660MW
COASTEL ENERGEN - 2x600MW
To Trivandrum
UDANGUDI - 2X800 MW
KAPP - 2X1000 MW
Samugarangapuram
EXISTING 400KV SS
SANCTIONED 400KV SS
PROPOSED 400KV SS
SANCTIONED 765KV PGCIL SS
PROPOSED 765/400KV SS
EXISTING 400KV LINE
SANCTIONED 400KV LINE
PROPOSED 400KV LINE
SANCTIONED 765KV LINE (PGCIL)
PROPOSED 765KV LINE

Annex – 3.1

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

From:
The Chief Engineer/Power Systems
APTRANSCO,
Vidyut Soudha,
Hyderabad – 500 082

To
The Chief Engineer (SP &PA),
Central Electricity Authority,
Seva Bhavan, R.K.Puram,
NEW DELHI – 110 066

Lr. No. CE(PS)/SE(SP)/DE(SS)/F. Hinduja/ D.No. 57 /2014 Dt:28 –03-2014

Sub: Erection of 400kV DC line TM line from the existing 400/220kV Vemagiri SS to the proposed 400/220 kV KamavarapuKota SS - Constraint in 400kV Bay extensions at 400kV Vemagiri SS - Proposal to make through One circuit of 400kV Simhadri-II – Nunna DC line (PGCIL) LILOed at 400kV Vemagiri SS – Request to include as agenda item for discussion in the forthcoming Standing Committee meeting - Reg.

Ref: Implementation of Transmission scheme for evacuation of power from 1040 MW M/s HNPCL project, Visakhapatnam – Approved in 36th Standing Committee Meeting.

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It is to inform that the following Transmission scheme proposed for evacuation of power from 1040 MW M/s HNPCL power project is approved in the 36th Standing Committee meeting:

(i) 400kV Twin Moose D/c line from Kalpaka S/s to Hinduja (HNPCL) Switchyard.

(ii) A new 400/220kV S/s with 2x315MVA Power Transformers capacity at KVKota and 400kV Twin Moose D/c line from HNPCL switchyard to the proposed KVKota S/s.

(iii) 400/220kV S/s with 2x315MVA Power Transformers capacity at Suryapet and 400kV quad moose D/c line from proposed KVKota S/s to proposed Suryapet S/s.

(iv) 400kV quad moose D/c line from proposed Suryapet S/s to 400/220kV Yeddumailaram (Shankarapally). (this line is to be made through Manikonda which can be made LILO upon realization of 400kV Manikonda S/s).

(v) 400kV twin moose D/c line from proposed KVKota S/s to Vemagiri S/s.

While implementing the item (v) above, i.e. erection of 400kV Twin Moose D/c line from proposed KVKota S/s to Vemagiri S/s, it is becoming difficult for bay extensions at 400kV Vemagiri SS because of space constraints.

In view of the above it is proposed to remove LILO at 400kV Vemagiri SS and make through One circuit of 400kV Simhadri-II – Nunna DC line (PGCIL) LILOed at 400kV Vemagiri SS.

The load flow results with the existing connectivity, by taking out LILO of one circuit, and also taking out both the circuits of 400kV Simhadri-Vemagiri-Nunna DC line with the 400kV connectivity from the proposed 400kV KamavarapuKota SS to the proposed 400kV Suryapet SS are herewith enclosed.

It is requested to include the above proposal as an agenda item for discussion in the forthcoming 37th Standing Committee meeting.

Yours faithfully,

29/3/14

Chief Engineer (Power Systems)

Encl: - As above

Copy to:

Sri Pardeep Jindal,
Director (SP&PA)
Central Electricity Authority,
Seva Bhavan, R.K.Puram,
NEW DELHI – 110066

Sri Dilip Rozekar, DGM(SEF)
PGCIL,
'Saudamini' Plot NO.2 Sector-29,
GURGAON - 122001, Haryana.

Annex 4.1

SHORT CIRCUIT LEVEL OF SOUTHERN REGION SUBSTATIONS

Sl. No.	Substation		Single Phase		Three Phase		Higher limits
	Name	Voltage level (kV)	Fault Current kA	Short Circuit MVA	Fault Current kA	Short Circuit MVA	
1	CUDP800	765	33.6	44531	21.3	28167	
2	KURL800	765	35.0	46345	23.3	30906	
3	SHOLAPUR	765	16.0	21139	11.1	14701	
4	HYDR_800	765	30.5	40429	19.2	25496	
5	DICHPALI	765	20.8	27556	11.6	15336	
6	WARN800	765	29.0	38421	18.6	24697	
7	NELL-POL	765	16.5	21843	13.3	17569	
8	SRI_POOL	765	19.7	26128	14.9	19684	
9	VEM-II80	765	20.9	27713	14.9	19718	
10	CPETA800	765	25.7	34049	15.8	20956	
11	RAIC800	765	25.7	34044	17.8	23524	
12	SALE800	765	10.4	13798	7.5	9996	
13	NCTPS765KV	765	23.0	30518	17.5	23165	
14	TIRUVLM	765	34.7	45949	22.5	29842	
15	ETPSREP7	765	20.9	27667	16.0	21192	
16	ARIYALUR7	765	34.6	45908	22.4	29713	
17	COIMBTR7	765	15.2	20122	4.6	6123	
18	RSTP	400	36.8	25466	37.6	26084	*
19	HYDR	400	32.1	22220	21.6	14965	
20	NSAG	400	31.4	21782	23.1	15970	
21	KHAM	400	31.2	21608	22.0	15259	
22	VIJW*	400	41.9	29040	32.5	22547	*
23	GAZW	400	32.2	22310	30.3	21015	
24	CUDP*	400	47.2	32679	33.1	22955	*
25	GOOT	400	34.9	24190	21.8	15099	
26	CHAND-SR	400	10.0	6947	6.6	4546	
27	GAZU-SR	400	32.2	22310	30.3	21015	
28	SSLBPH4	400	21.6	14952	19.1	13251	
29	HYDR-AP4	400	32.6	22602	21.7	15066	
30	KURNOOL4	400	39.4	27275	27.9	19298	*
31	SIMHADRI	400	34.4	23837	34.1	23656	
32	SIMHD-II	400	29.1	20148	27.7	19172	
33	VIZPOOL	400	35.7	24743	35.7	24708	*
34	VEMAGIR4	400	44.8	31073	33.4	23118	*
35	TPCIL4	400	28.3	19588	27.0	18719	

36	NELLORE4	400	47.2	32711	36.8	25477	*
37	RAM-PVT4	400	26.1	18064	21.0	14560	
38	DICHPAL4	400	27.3	18921	18.0	12474	
39	GAJWEL4	400	30.4	21036	21.1	14598	
40	MAHABUB4	400	26.1	18083	16.6	11529	
41	CHITOR	400	48.1	33334	32.5	22512	*
42	VIJ-AP	400	37.6	26035	27.1	18747	*
43	KRISH-AP	400	33.4	23129	31.4	21762	
44	KURL-NEW	400	40.7	28223	30.4	21047	*
45	KAKTIA-G	400	26.3	18212	24.1	16676	
46	VIJTP-IV*	400	41.6	28836	32.5	22490	*
47	SINGARENI	400	11.5	7970	11.0	7624	
48	GARIVIDI	400	18.4	12772	13.0	9033	
49	HINDPR40	400	13.6	9442	8.7	6015	
50	KOTH-IV	400	14.1	9754	12.0	8284	
51	MAILARM4	400	40.4	27970	27.3	18882	*
52	MALKARM4	400	20.2	13961	13.6	9451	
53	MUDN400	400	9.4	6499	9.3	6425	
54	SURYPET4	400	17.9	12401	11.8	8204	
55	NIRMAL	400	9.5	6563	7.9	5471	
56	WARN4	400	37.8	26201	29.1	20191	*
57	PODLI	400	15.8	10960	11.1	7701	
58	SIMHP-OA	400	19.2	13332	16.8	11653	
59	MENAK-OA	400	20.9	14481	19.9	13763	
60	EAST-OA	400	27.1	18757	25.8	17867	
61	VEMAG-II	400	45.1	31260	33.1	22912	*
62	NEL-POOL	400	48.0	33234	43.3	30026	*
63	NCCPPL	400	28.3	19588	27.0	18719	
64	HINDJ-OA	400	32.7	22658	32.1	22253	
65	CPETA400	400	30.6	21221	22.3	15421	
66	MAHESWRM	400	42.7	29594	30.1	20845	*
67	NELLORE-AP	400	46.9	32519	36.6	25351	*
68	KVKOTA40	400	25.0	17293	16.6	11497	
69	KONDPRM	400	15.9	11003	9.8	6768	
70	URVKND	400	16.2	11232	10.0	6895	
71	FSC-1	400	6.2	4267	3.6	2520	
72	FSC-2	400	6.5	4516	3.8	2651	
73	FSC-3	400	4.8	3295	2.8	1921	
74	FSC-4	400	4.8	3295	2.8	1921	
75	SMNH	400	36.1	25002	22.5	15612	*
76	MNRB	400	11.3	7802	7.3	5079	
77	RAIC	400	38.3	26508	32.3	22379	*
78	DAVAN4	400	25.3	17509	17.4	12063	
79	HOODI4	400	34.8	24131	21.7	15032	
80	TALAGUP4	400	9.5	6611	7.5	5200	

81	NELMANG4	400	40.7	28201	26.0	18023	*
82	UDUPI400	400	13.3	9226	14.3	9932	
83	HASSAN4	400	20.6	14249	14.4	9980	
84	MYSORE4	400	22.1	15285	14.1	9770	
85	KOLAR	400	34.2	23707	20.9	14493	
86	KAIGA	400	18.2	12613	14.6	10081	
87	RAIC-NEW	400	39.1	27114	31.5	21813	*
88	NARDR-NW	400	32.7	22671	32.3	22348	
89	GULBRG	400	8.2	5710	4.5	3105	
90	KUDGI-NT	400	32.1	22247	33.5	23215	
91	ECITY	400	22.6	15641	14.4	9944	
92	HIRY	400	22.4	15507	14.6	10087	
93	NAREND-4	400	29.6	20489	24.7	17141	
94	TORNGL4	400	36.1	25018	34.7	24013	*
95	BIDADI	400	37.7	26143	23.8	16495	*
96	BELLARY	400	40.9	28338	40.2	27856	*
97	YERAMRS	400	25.7	17780	27.1	18759	
98	YELAHNKA	400	31.5	21831	20.3	14039	
99	EDLAPUR	400	24.4	16921	24.6	17015	
100	BELLARY-POOL	400	42.2	29208	40.6	28147	*
101	CNHALLI	400	23.5	16292	15.8	10945	
102	MADHUGI4	400	48.1	33298	32.2	22278	*
103	KOCHIN4	400	16.7	11596	9.8	6786	
104	TNRT	400	20.7	14357	13.4	9307	
105	TRIVAND4	400	9.0	6255	4.7	3234	
106	KOZIKOD4	400	13.5	9326	7.4	5126	
107	PALAKKAD	400	21.0	14527	13.4	9261	
108	CHENN-EX	400	33.2	22973	29.4	20395	
109	NYVL	400	46.9	32470	44.4	30743	*
110	MADR	400	33.0	22881	20.8	14393	
111	SALE	400	34.9	24167	19.9	13817	
112	TRIC	400	18.4	12725	10.0	6954	
113	MADURAI4	400	32.7	22673	19.6	13584	
114	UDMP	400	39.1	27071	23.5	16307	*
115	HOSUR4	400	24.4	16879	13.5	9387	
116	PAVOORCHATRM	400	17.8	12330	10.5	7290	
117	NEYEXTN4	400	37.7	26141	33.1	22913	*
118	NAGAPTNM4	400	32.8	22719	28.9	20036	
119	PUGALUR4	400	31.7	21943	18.0	12439	
120	ARSUR4	400	27.4	18964	15.4	10675	
121	PUGALUR-NEW	400	30.2	20913	18.3	12708	
122	KARAIK	400	26.4	18284	15.2	10517	
123	TIRUNEL4	400	36.4	25202	28.6	19846	*
124	NEY_IIEX	400	37.1	25682	32.3	22392	*
125	KUDAN4	400	26.0	18031	27.1	18752	

126	ALMATI4	400	38.5	26705	29.1	20184	*
127	OPG400KV	400	18.1	12556	16.7	11567	
128	MANGLAPURAM	400	24.4	16889	12.3	8554	
129	KANAPATT	400	34.2	23688	24.2	16734	
130	KAYATHAR4	400	41.4	28703	30.1	20868	*
131	KORATUR4	400	28.1	19437	19.0	13185	
132	MANALI4	400	30.9	21390	21.1	14649	
133	METTUR4	400	26.6	18437	18.9	13082	
134	NEY(REP)4	400	45.5	31498	43.0	29814	*
135	TANJORE4	400	12.0	8331	5.7	3962	
136	TUTICORN	400	29.2	20235	26.1	18092	
137	UDNGDI4	400	29.4	20388	29.2	20239	
138	PONDY4	400	14.5	10027	8.2	5657	
139	MYLAPRE4	400	33.0	22848	20.1	13936	
140	MALEKTT	400	35.8	24814	22.9	15841	*
141	TIRUVLM	400	66.2	45872	46.4	32137	*
142	VALLUR TPS	400	29.9	20747	28.3	19640	
143	SVCHTRM	400	37.5	25955	25.8	17884	*
144	SHOLNGNR	400	31.9	22116	19.9	13800	
145	KARMDAI	400	22.9	15884	12.8	8896	
146	TAPPAKUN	400	9.1	6297	8.7	6020	
147	ANIKADAV	400	29.6	20538	20.8	14444	
148	TUTI-POOL	400	38.8	26900	34.4	23860	*
149	ILFS-OA	400	30.4	21067	28.2	19534	
150	RASIPALA	400	37.1	25708	27.6	19123	*
151	DHARMPR*	400	46.9	32469	24.6	17063	*
152	CEPL	400	24.9	17250	24.0	16645	
153	IND-BARATH	400	22.9	15853	19.9	13798	
154	EDAMLYRM	400	40.4	27970	23.5	16248	*
155	ETPSEXP4	400	30.3	20985	28.1	19486	
156	PULNTOPE4	400	31.7	21936	19.0	13136	
157	THERVOI4	400	15.1	10437	13.7	9473	
158	ARIYALUR4	400	40.4	27987	16.5	11415	*
159	COIMBTR4	400	40.1	27771	23.7	16440	*
160	KARAIKUD74	400	23.5	16290	13.2	9172	
161	NCTPSSTG4	400	32.5	22486	30.4	21067	
162	KAMUTHI4	400	15.6	10783	9.5	6598	
163	GUINDY4	400	36.0	24951	22.9	15872	*
164	KOLAPALUR4	400	26.1	18082	15.7	10904	
165	PALAVADI4	400	41.5	28721	16.5	11437	*
166	OTTAPIDARAM4	400	19.7	13642	12.6	8719	
167	SAMUGARANGAP	400	19.8	13752	14.6	10127	
168	SOLINGHUR4	400	25.6	17706	14.9	10301	

Annex-5.1

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

From:
The Chief Engineer/Power Systems
APTRANSCO,
Vidyut Soudha,
Hyderabad – 500 082

To
The Chief Engineer (SP & PA),
Central Electricity Authority,
Seva Bhavan, R.K.Puram,
NEW DELHI – 110 066

Lr. No. CE(PS) / SE(SP)/DE(SS)/ADE-2/F. Ph-chevella/D. No. 64 /2014, Dt. 16 .04.2014.

Sir,

Sub: Dr. B.R.Ambedkar Pranahitha Chevella Sujala Project – Dedicated Power Supply to the Pumping Stations at Myadaram (Pkg-6), Choppadandi (Pkg-7) Ramadugu (Pkg-8), Malakpet (Pkg-9) and Tippapur (Pkg-10) – Request to include as agenda item for discussion in the forthcoming Standing Committee meeting - Reg.

***

The following pumping stations are coming up in Karimanagar district under Dr. B.R.Ambedkar Pranahitha Chevella Sujala Project lift scheme.

i)	Myadaram, Karimnagar Dt. (Pkg-6)	– 756 MW
ii)	Choppadandi, Karimnagar Dt. (Pkg-7)	– 150 MW
iii)	Ramadugu, Karimnagar Dt. (Pkg-8)	– 720 MW
iv)	Malakpet, Karimnagar Dt. (Pkg-9)	- 30 MW
v)	Tippapur, Karimnagar Dt. (Pkg-10)	- 336 MW

Accordingly the following dedicated Transmission scheme approved by APTRANSCO for extension of supply to the above packages of Dr. B.R. Ambedkar Pranahita – Chevella Sujala Sravanti Lift Irrigation Scheme is proposed as follows:

a) Erection of 400kV SS at Ramadugu (Pkg-8).
b) Erection of 400kV Sub-Station at Choppadandi (Pkg-7) with 2x315 MVA ICTs.
c) Erection of 400kV SS at Myadaram (Pkg-6)
d) Erection of 400kV SS at Tippapur (Pkg-10)
e) Erection of a 132kV SS at Malakpet (Pkg-9)
f) Erection of 400kV Quad Moose DC line for making LILO of both the circuits of 400kV SCCL – Gajwel Quad Moose DC Line at the proposed 400kV Ramadugu SS (total 50kM for two LILO DC lines).
g) Erection of 90kM 400kV Twin Moose DC line from 400kV Dichpally SS to the proposed 400kV Ramadugu SS.

h) Erection of 25kM 400kV Quad Moose DC line from 400kV Ramadugu SS to 400kV Myadaram SS.

i) Erection of 25kM 400kV Quad Moose DC line from 400kV Ramadugu SS to 400kV Choppadandi SS.

j) Erection of 40kM 400kV Twin Moose DC line from 400kV Choppadandi SS to 400kV Tippapur SS.

k) Erection of 400kV Twin Moose DC line for making LILO of both the circuits of 400kV KTPP – Gajwel Twin Moose DC Line at the proposed 400kV Tippapur SS (total 80kM for two LILO DC lines).

l) Erection of 60kM 400kV Twin Moose DC line from 400kV Dichpally SS to the upcoming 400kV Nirmal SS.

m) Erection of 30kM 132kV DC line from 220kV Jagityala SS to the proposed 132kV Malakpet SS.

The Load flow results in the Normal conditions as well as Contingency conditions are herewith enclosed.

It is requested to include the above proposal as an agenda item for discussion in the forthcoming 37th Standing Committee meeting.

Yours faithfully,

Encl: - As above

Sd/-

Chief Engineer (Power Systems)

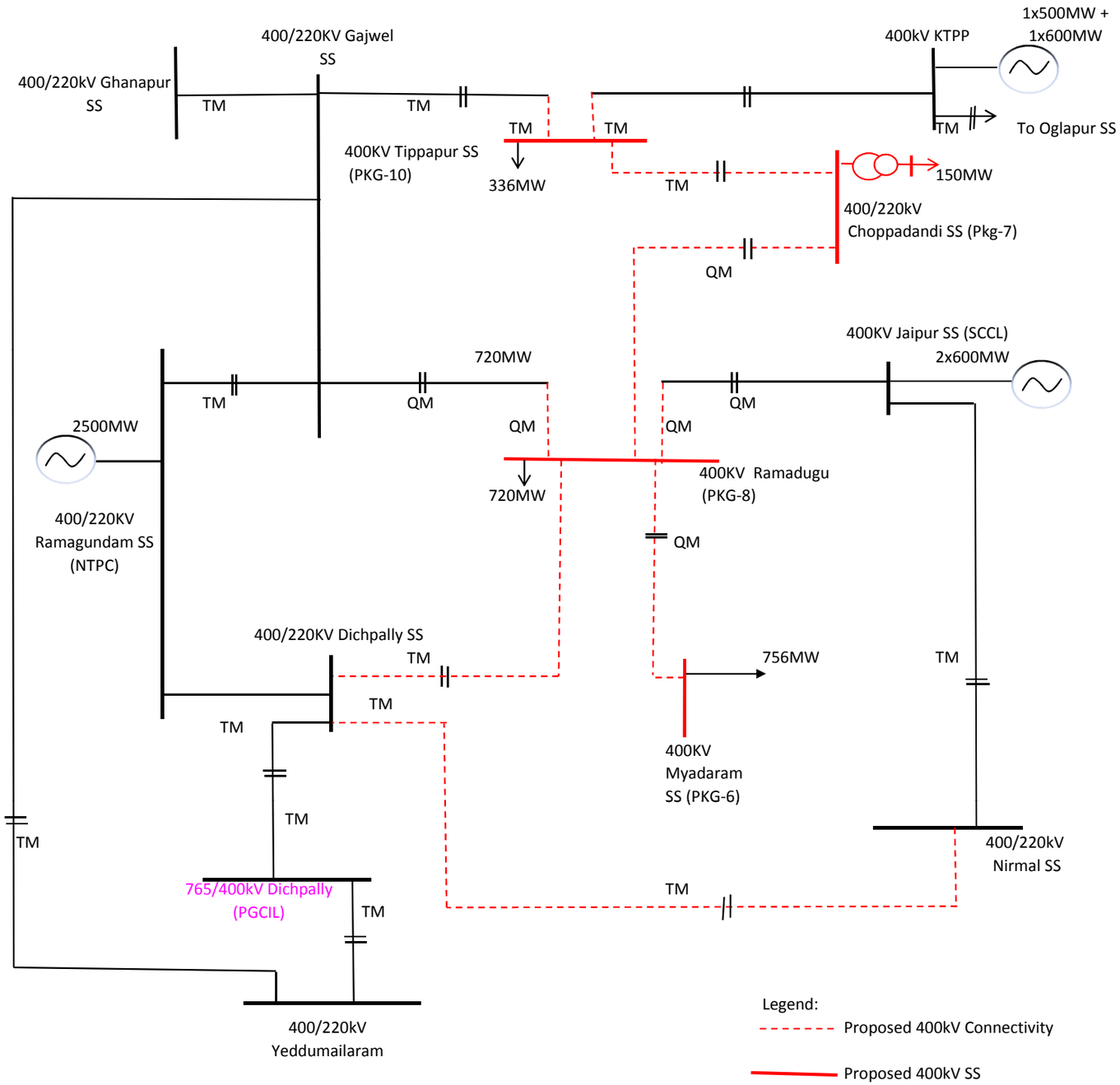
Copy to:

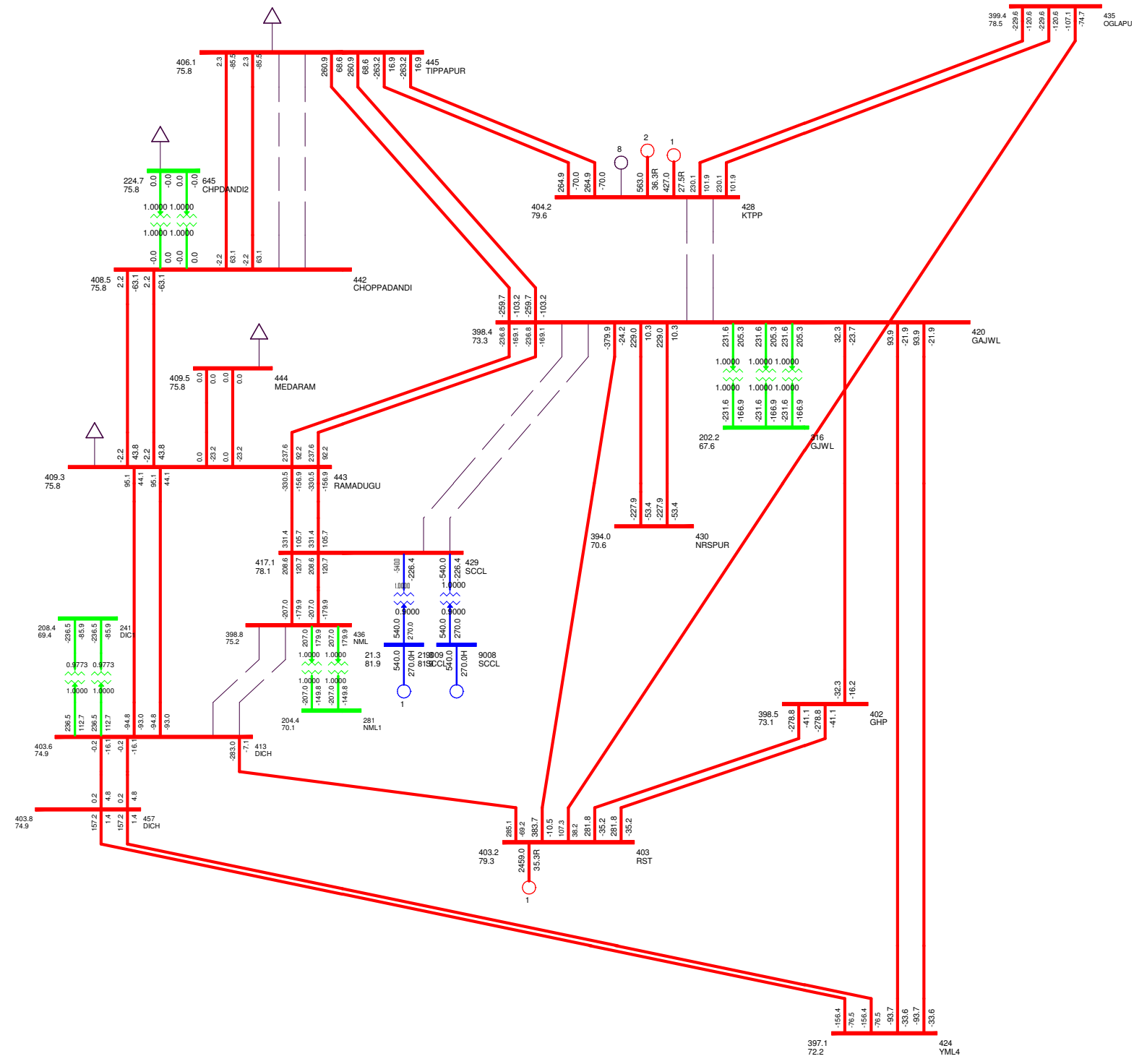
Sri Pardeep Jindal,
Director (SP&PA)
Central Electricity Authority,
Seva Bhavan, R.K.Puram,
NEW DELHI – 110066

Sri Dilip Rozekar, DGM(SEF)
PGCIL,
'Saudamini' Plot NO.2 Sector-29,
GURGAON - 122001, Haryana.

Annex-5.2

400kV Gajwel - Jaipur (SCCL) DC LILO at 400kV Ramadugu SS (Pkgs: 6,7,8 & 10)

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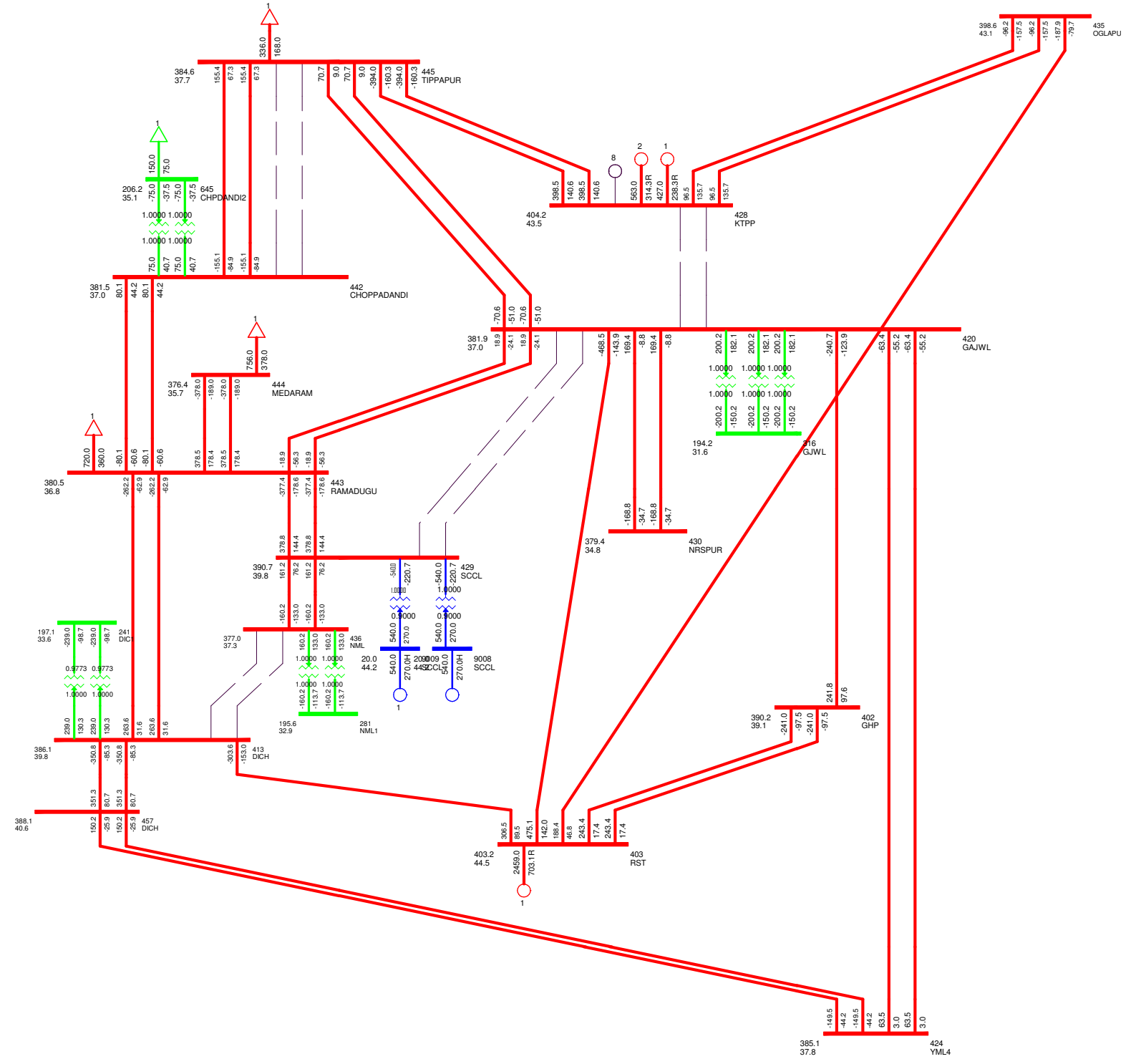
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Annex 6.1

TAMILNADU TRANSMISSION CORPORATION LTD.
(Subsidiary of TNEB Ltd.)

From

K.Rangaraj, B.E.,M.C.A.,F.I.E.,
Director/Transmission Projects (I/C),
TANTRANSCO,
144, Anna Salai,
Chennai -2.

To

The Member (Power System),
Central Electricity Authority,
Sewa Bhavan, R.K.Puram,
New Delhi 110 066.

Lr.No. CE/Plg.&R.C/SE/SS/EE1/AEE1/F.400kV Bays/D.202 /14Dated. 21.06.14

Sir,

Sub: TANTRANSCO – 400kV Bays at Dharmapuri 765/400kV PGCIL SS requested – reg.

*****

1.0. In the 34th Standing Committee, the following system has been agreed for additional inter-connection with ISTS and increased reliability.

LILO of one Rasipalayam – Palavady (Singarapet) 400kV D/c line at Salem

2.0 The erection of Thappagundu – Anaikadavu – Rasipalayam 400kV DC line with 400kV substations is on the fast track, which has been approved in the 34th Standing Committee Meeting for the evacuation of wind power projects.

3.0 Now, the land for the Singarapet 400kV SS has been identified near Salem (Dharmapuri) 765kV PGCIL SS i.e., at Palavady., and the work is expected to be taken up shortly. Out of the 2 DC 400kV circuits from Rasipalayam to Palavady (Singarapet). One DC circuit has been already taken up and the other DC circuit is included in the Kfw funding.

4.0 As communicated by PGCIL that Salem 765kV substation is initially to be charged at 400kV level, there are no bays available at Dharmapuri substation for TANTRANSCO now, and at a later stage when the operating voltage is at 765kV level, 400kV bays will get released for termination of TANTRANSCO lines. Now, it is requested that at least one of the Rasipalayam – Palavady 400kV line, the execution of which is on the fast track may be permitted to be made LILO at Dharmapuri.

5.0 The two numbers 400kV Bays meant for ICTs in the Salem 765kV SS may be temporarily permitted to be used for making LILO of the above said line.

-sd-
(K.Viji)
Chief Engineer/Planning & R.C
(For Director/Transmission Projects)

Annex - 7.1

ISO 14001 : 2004

ISO 9001:2008

NEYVELI LIGNITE CORPORATION LIMITED

(A Govt. of India Enterprise)

OFFICE OF THE EXECUTIVE DIRECTOR/THERMAL Phone / Fax: 04142-252688

Thermal Power Station – II (7 X 210 MW) E.mail: cgm.cgmts2@nlcindia.com

Lr.No: PSE/NNTPS/CEA/Elec/2013 Dt:20.11.2013

To

Member (Power System)
M/s. Central Electricity Authority,
System Planning and Project Appraisal Division,
Sewa Bhavan, R.K.Puram,
New Delhi – 110066 **FAX No: 011-26170572**

Kind Attn. of Shri. Pradeep Jindal, Director (SP&PA)

Sir,

Sub:- 2 X 500 MW NNTPS – Transmission system for Power evacuation – 220 kV Switchyard configuration in NNTPS – Non availability of additional bays - Reg.

Ref:- 1. Minutes of meeting of 35th meeting of the Power System planning of southern region
2. Minutes of meeting of 36th meeting of the Power System planning of southern region.

This has reference to the Minutes of the 36th meeting of the Power System planning of southern region held on 4th September 2013. NLC could not participate in that meeting due to rescheduling of the meeting date in short notice.

1. As per point no: 6.8 of the MOM 1st cited, the following was agreed for evacuation of power from 2x500 MW Neyveli New Thermal Power Station (NNTPS), TS-I (Replacement) of Neyveli Lignite Corporation Ltd. in Neyveli, Tamil Nadu

6.8 System Strengthening in Tamil Nadu:

(iii) LILO of both circuits of Neyveli TS-I – Neyveli TS-II 230kV D/c line at NNTPS Switchyard (by NLC)

(iv) NNTPS switchyard – Neyveli (TANTRANSCO 230kV S/S), 230kV D/C line with HTLS conductor (by TNEB)

(v) Neyveli TPS-II – Neyveli (TANTRANSCO 230kV S/S), 230kV D/C line (by TNEB)

Accordingly NLC have included the above 6 bays in the 220KV Switchyard of NNTPS and the scope of works has been finalized for the BOP package tender of NNTPS. In respect of Neyveli TPS-II, the bays currently in use for MF-1 and MF-2 will be used for the above purpose after shifting MF-1 & MF-2 to NNTPS.

3. In the Additional Agenda II for discussion in 36th Meeting, the following modification was requested for inclusion for the transmission system of evacuation of power from 2X500MW NNTPS (NeyveliTS-1 Replacement).

   "LILO of one of the Neyveli TS II – NNTPS switchyard DC lines at the TANTRANSCO 230kV SS at a later date (By TNEB)."

4. As per point no: 8.3 of the MOM 2nd cited, the following additional transmission system have been agreed by the SCPSPSR for evacuation of power from 2x500 MW Neyveli New Thermal Power station (NNTPS) in Neyveli, Tamil Nadu

   (i) NNTPS switchyard – Neyveli (TANTRANSCO 230kV S/S), 230kV D/C line with HTLS conductor (by TNEB).

   (ii) Neyveli TPS-II – Neyveli (TANTRANSCO 230kV S/S), 230kV D/C line (by TNEB) also be with HTLS conductor.

5. As per the above, two additional bays are required at NNTPS 230KV Switchyard and two additional bays are required at TPS-II 230KV Switchyard. As such there is no space available for construction of two additional bays both at NNTPS 230KV Switchyard and TPS-II 230KV Switchyard. The above four additional lines are also not in line with the agenda points as described in point no. 3 above.

6. In view of the above, it may be please noted that construction of additional bays at NLC power stations end will not be possible and accordingly the evacuation scheme considering requirement of TANTRANSCO may be revised suitably.

Thanking you,

Yours faithfully,

20.11.13

Executive Director (Thermal)
For Neyveli Lignite Corporation Limited

Copy to The Director/Transmission, TAN TRANSCO, 6th Floor, Eastern Wing, NPKRR Maligai, 144, Anna Salai, Chennai – 2.

Copy to The Member /Distribution, TNEB, 6th Floor, Eastern Wing, NPKRR Maligai, 144, Anna Salai, Chennai – 2

Copy to The Chief Engineer / Transmission, TAN TRANSCO, 6th Floor, Western Wing,NPKRR Maligai, TNEB, 144, Anna Salai, Chennai – 2
Kind Attention: Shri R. V. Sundararaman, CE/Transmission, FAX No: : 044-28555539

Annex 8.1

NUCLEAR POWER CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
DIRECTORATE OF OPERATIONS
12-S-17, Vikram Sarabhai Bhavan, Anushaktinagar, Mumbai-400 094.

No.NPCIL/(Trans)/2014/M/127

May 19, 2014

Shri Y.K. Sehgal,
Chief Operating Officer (CTU)
Power Grid Corporation of India Ltd.
Saudamini, Plot No.2,
Sector-29, Gurgaon-122 001
Haryana

Dear Sir,

Sub.: Connectivity for Kudankulam -3&4 (2x1000 MWe) with Inter-State Transmission System

Ref.: C/ENG/SEF/Kudankulam-3&4 dated 14/06/2012 from POWERGRID-copy enclosed for ready reference

As you are aware that connectivity arrangement for Kudankulam-3&4 (KKNPP-3&4, 2x1000 MWe) has been planned independently from that of the existing Kudankulam-1&2 (KKNPP-1&2, 2x1000 MWe). This is based on the considerations of current rating as well as switchgear rating limitations of 400kV switchyard of KKNPP-1&2.

Under the proposed scheme, one additional 400kV D/c line has been envisaged to 400kV Tuticorin Pooling Station and one circuit of this D/c line will be connected to KKNPP-1&2 and the other circuit to KKNPP-3&4. Similarly, one circuit of each of the existing 2x400kV D/c lines (to Tirunelveli) will also be connected to KKNPP-1&2 and KKNPP-3&4. Thus the final configuration will consist of 3 nos. of 400kV lines, 2 nos. to Tirunelveli and 1 no. to Tuticorin, emanating from both of the plants i.e. KKNPP-1&2 and KKNPP-3&4.

While reviewing the proposed aforesaid scheme on the basis of the latest Transmission Planning Criteria (effective from 01/02/2013), it is seen that neither of the switchyards satisfies the **N-1-1** criteria. When subjected to such condition, each of the switchyards will be left with only one 400kV circuit. This may not be enough to evacuate the generation of 2x1000 MWe and may call for operational measures such as rescheduling of generation either manually or through automatic System Protection Scheme (SPS). Considering the high quantum of

power generation at these stations and base load nature of Nuclear Power Stations, these measures may not be advisable in the planning stage itself.

It may also be stated that in existing configuration of KKNPP-1&2, one of the 4 circuits to Tirunelveli has been extended up to Madurai, bypassing the Tirunelveli Sub-Station. In the event of non-availability of 400kV Tirunelveli S/s, a SPS is under implementation to regulate the generation of KKNPP-1&2 to 700 MWe within 10-15 minutes, so as to match it with the capacity of the only available line to Madurai.

Based on above discussion, it is requested to kindly review the connectivity of KKNPP-3&4 (2x1000 MWe).

Thanking you,

Yours truly,

20/05/14

(N.K.Jain)
Associate Director (Transmission)

Encl. : As Above

Copy to:

ırdeep Jindal, Director (SP&PA)
I Electricity Authority
Bhawan, R.K. Puram,
elhi-110 066

ilip Rozekar,
eneral Manager (Engg.SEF)
ERGRID
amini, Plot NO.2,
or, 29, Gurgaon-122 001
ana

Shri S.R. Bhat,
Member Secretary,
No.29, Race Course Cross Road,
Bangalore-560 009

Shri P.R. Raghuram,
Executive Director,
Power System Operation Corporation Ltd.
SRLDC, 29, Race Course Road,
Bangalore 560009.

Agenda of Reactive Compensation for Various Transmission Schemes approved in previous SCMs

Reactive Compensation is proposed on the new transmission lines upon approval of Standing Committee and preliminary survey so that approximate line length is available for Reactive Power Planning Studies for normal operation & for charging of the transmission lines. Accordingly, Reactive Compensation has been proposed for the following transmission Schemes approved in previous Standing Committee Meetings:

1) Wardha – Hyderabad (Maheswaram)765 kV Link:

   - 1 no. 240 MVAR, 765 kV Bus Reactors at Nizamabad.
   - 1 no. 240 MVAR switchable line reactor at Maheshwaram and Wardha for both circuits of Wardha – Hyderabad (Maheshwaram) 765kV D/c line with anchoring at Nizamabad.
   - 1 no. 240 MVAR switchable line reactor at Nizamabad for both circuits of Wardha – Nizamabad 765kV D/c line and Nizamabad – Hyderabad (Maheshwaram) 765kV D/c line

2) Substation works associated with Hyderabad (Maheswaram) 765 kV Substation

   - 2 nos. 240 MVAR, 765 kV Bus Reactors at Maheshwaram Pooling Station

   System Studies were carried out for assessing Reactive Compensation for the above transmission Schemes and the results have been given at **Annexure-I**

3) Sub-station Works associated with System Strengthening in Southern Region for import of power from Eastern Region:

   - 1 no. 240 MVAR switchable line reactor at Vemagiri Pooling Station and Srikakulam Pooling Station each for both circuits of Srikakulam PP – Vemagiri-II Pooling Station 765kV D/C line.
   - 2 nos. 240 MVAR, 765 kV Bus Reactors at Vemagiri Pooling Station.
   - 1 no. 80 MVAR, 400 kV Bus Reactors at Vemagiri Pooling Station

   System Studies were carried out for assessing Reactive Compensation for the above transmission Scheme and the results have been given at **Annexure-II**

4) Transmission System associated with ISGS Projects in Nagapattinam/Cuddalore Area of Tamilnadu – Part A1 (b)

   - 1 no. 63 MVAR line reactor at Nagapattinam Pooling Station and Salem New (Dharmapuri) each for both circuits of Nagapttinam Pooling Station – Salem (New)

765 kV D/c line (initially charged at 400 kV) being implemented under Tariff based Bidding.

- 1 no. 63 MVAR line reactor at Madhugiri end of Salem New (Dharmapuri) – Madhugiri 765 kV S/c line (initially charged at 400 kV) being implemented under Tariff based Bidding.

System Studies were carried out for assessing Reactive Compensation for the above transmission Scheme and the results have been given at **Annexure-III.**

Annexure-I

Studies for Reactive Compensation for Wardha – Hyderabad (Maheswaram) 765 kV Link & Substation works associated with Hyderabad (Maheswaram) 765 kV Substation

Studies for provision of Line Reactors Wardha – Nizamabad – Hyderabad 765kV D/c line

Line Length:

- Wardha – Nizamabad 765kV D/c line – approx 270 Km
- Hyderabad – Nizamabad 765kV D/c line – approx 270 Km

Following results have been obtained while charging the Wardha – Nizamabad – Hyderabad 765kV D/c lines without line reactors, the relevant outputs are enclosed at **Exhibit-I**

Charging of Wardha – Nizamabad line from Wardha end without line reactors

Source rise	–	11 kV
Line Rise	–	40 kV
Total Rise	–	51 kV

Charging of Hyderabad-Nizamabad line from Hyderabadend without line reactors

Source rise	–	55 kV
Line Rise	–	42 kV
Total Rise	–	97 kV

From the above it may be seen that charging of Wardha – Nizamabad line or charging of Hyderabad – Nizamabad line without line reactors shall lead to very high voltages at the open end and practically not possible to charge the lines under such conditions.

Further, the voltage at Nizamabad bus crosses 800 kV thus rendering it impossible to charge either circuit from Nizamabad end. Similarly to control the bus Voltages during off-peak conditions or while charging of the lines at **Wardha, Nizamabad and Hyderabad substations, necessary bus reactors were also identified**.

Accordingly, necessary line reactors were identified through reactive power planning studies for charging of the lines. Relevant charging studies are given at **Exhibit-I**

Charging of Wardha – Nizamabad line

From Wardha end with 240 MVAR line reactors at both ends

Source rise	–	3 kV
Line Rise	–	13 kV
Total Rise	–	16 kV

From Nizamabad end with 240 MVAR line reactors at both ends

Source rise	–	30 kV
Line Rise	–	13 kV
Total Rise	–	43 kV

Charging of Nizamabad - Hyderabad line

From Nizamabad end with 240 MVAR line reactors at both ends

Source rise	–	15 kV
Line Rise	–	13 kV
Total Rise	–	28 kV

From Hyderabad end with 240 MVAR line reactors at both ends

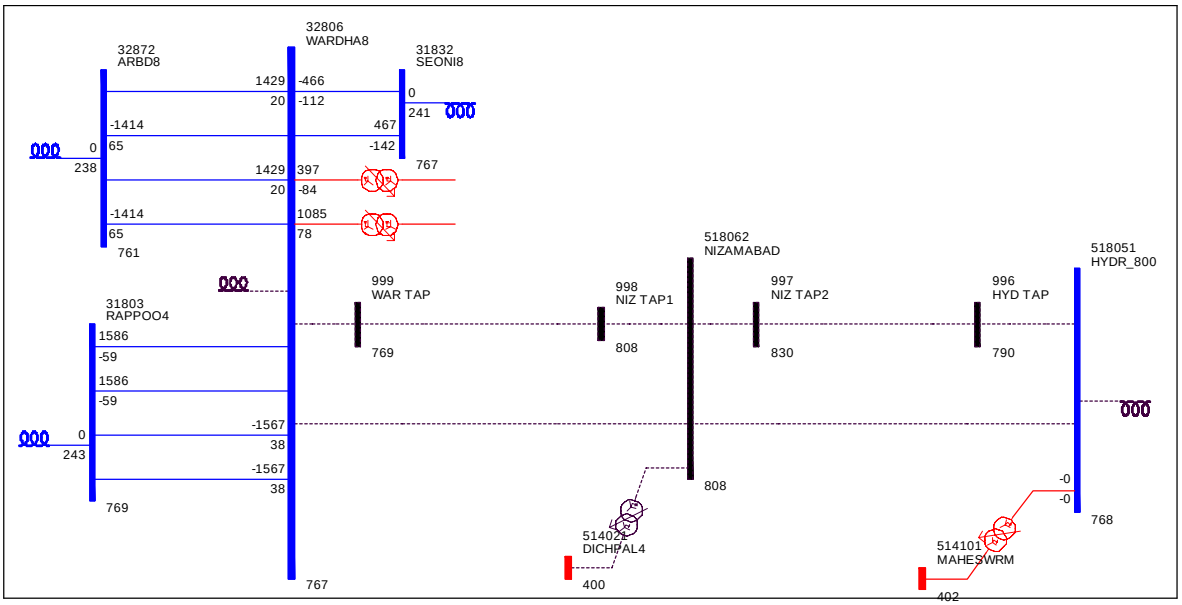
Source rise	–	17 kV
Line Rise	–	13 kV
Total Rise	–	30 kV

Exhibit-I

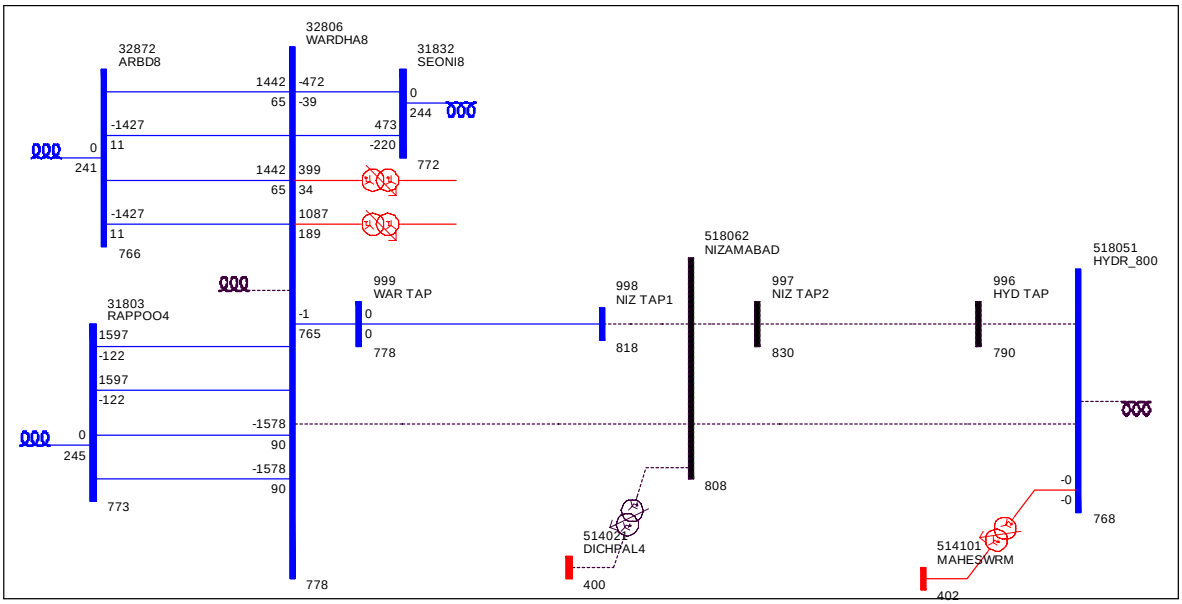
Charging of Wardha – Nizamabad – Hyderabad 765kV D/c line without reactive compensation

A. Charging of Wardha – Nizamabad 765kV D/c line

Pre-charging condition

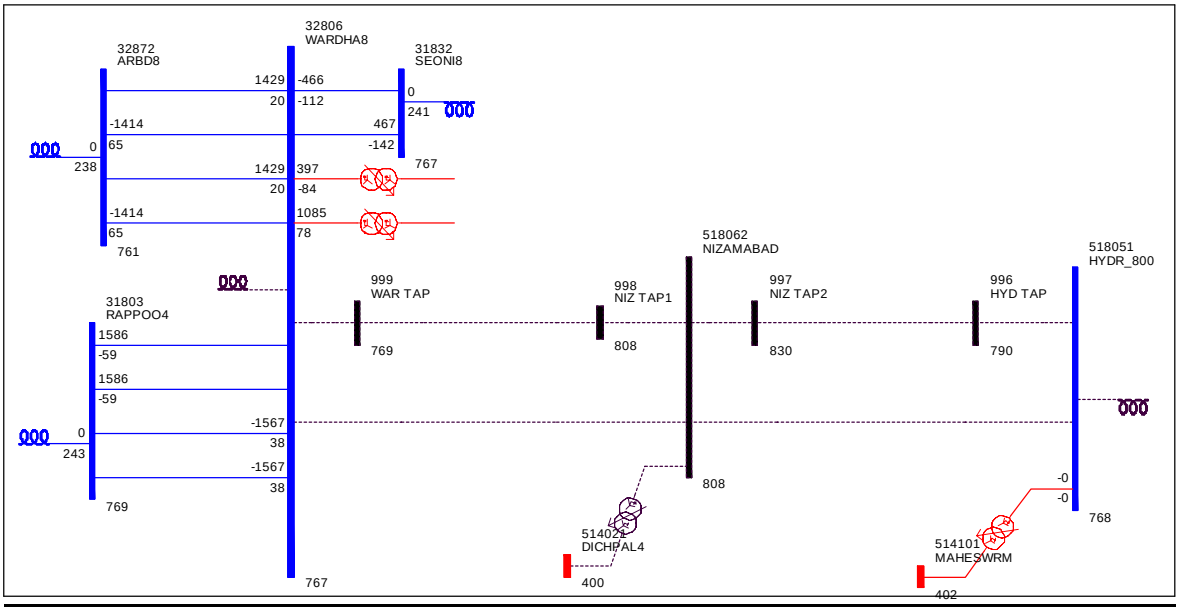


On-charging (from Wardha end)

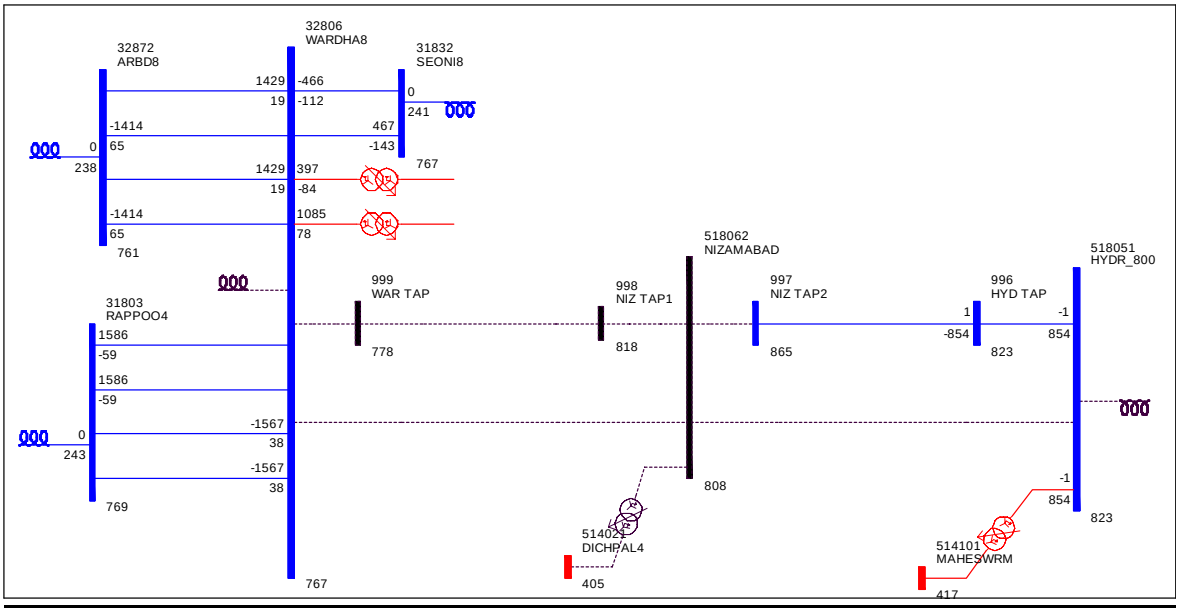


B. Charging of Nizamabad – Hyderabad 765kV D/c line

Pre-charging condition



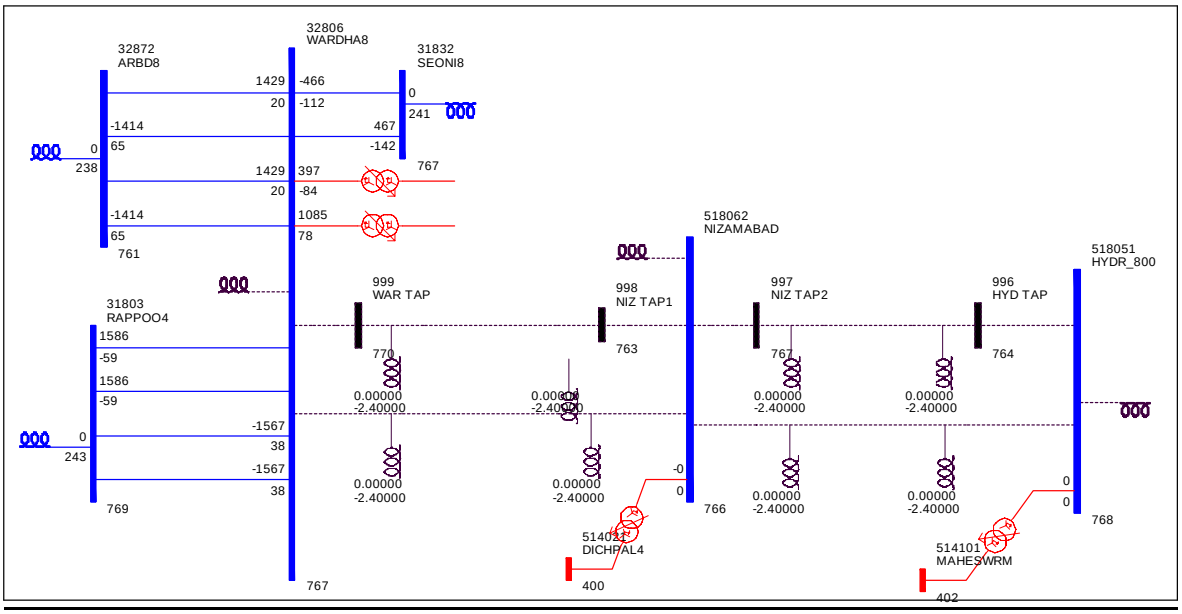
On-charging (from Hyderabad end)



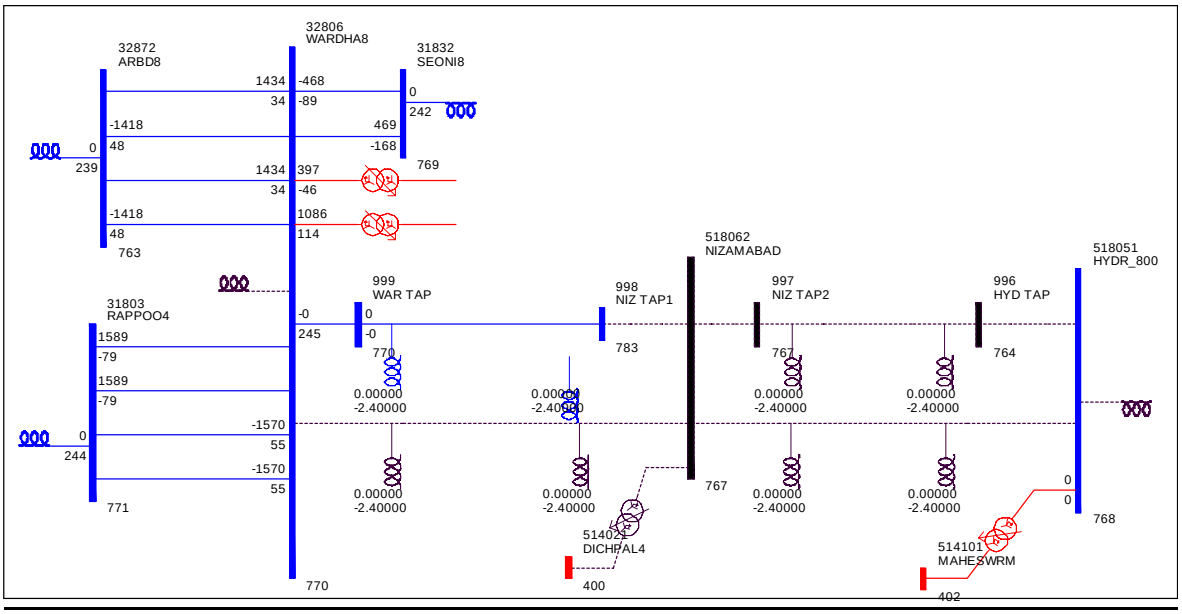
Charging of Wardha – Nizamabad – Hyderabad 765kV D/c line with reactive compensation

A. Charging of Wardha – Nizamabad 765kV D/c line

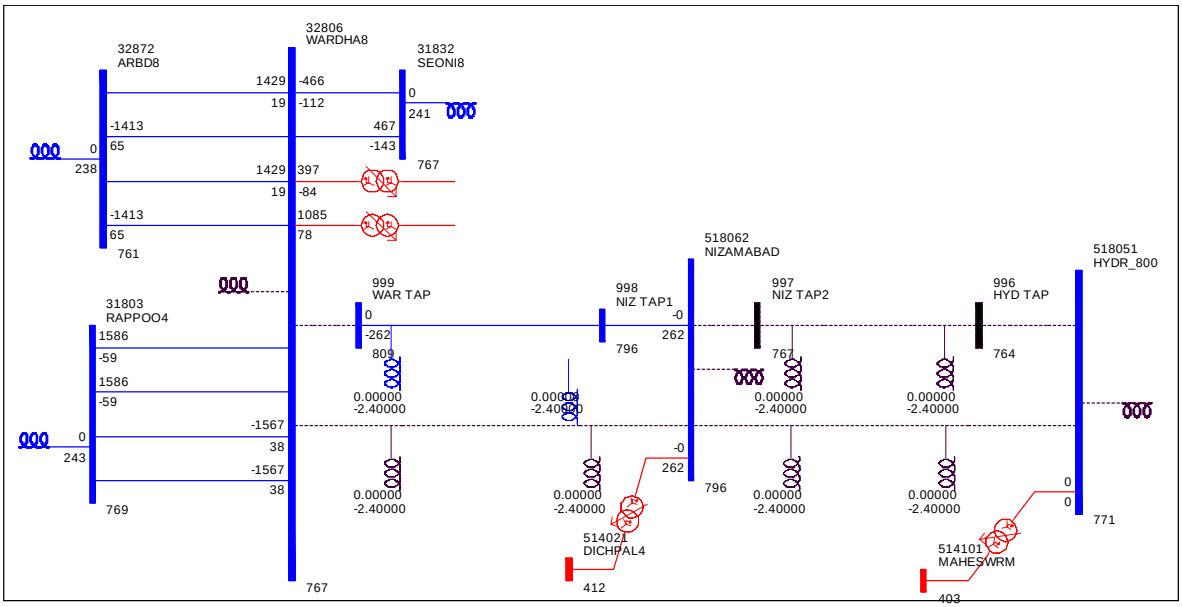
Pre-charging condition



On-charging (from Wardha end)

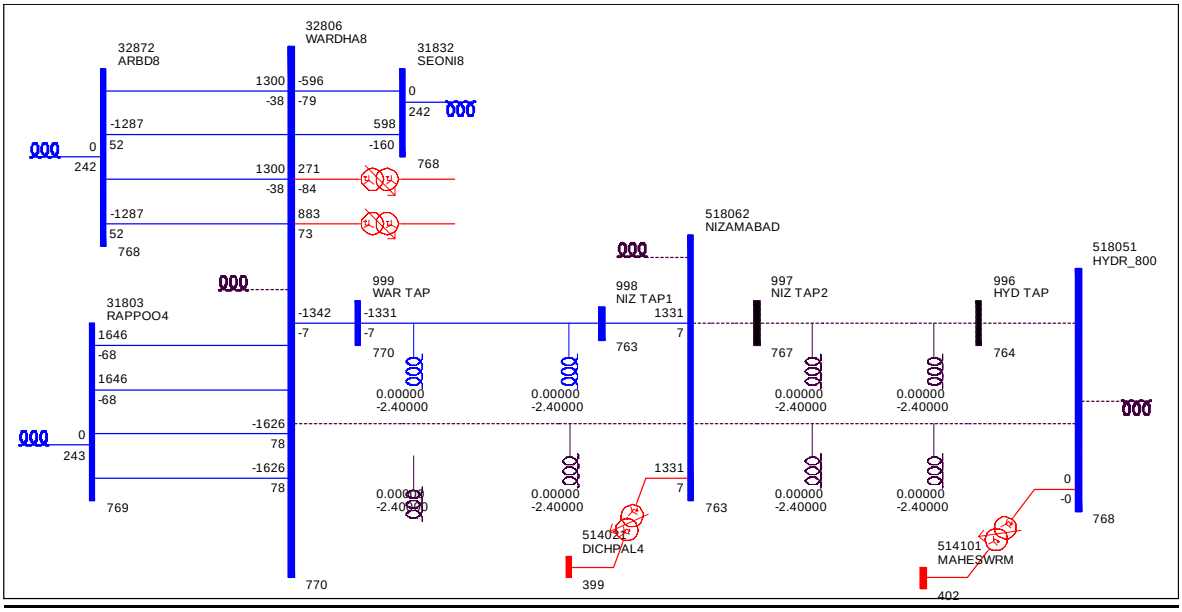


On-charging (from Nizamabad end)

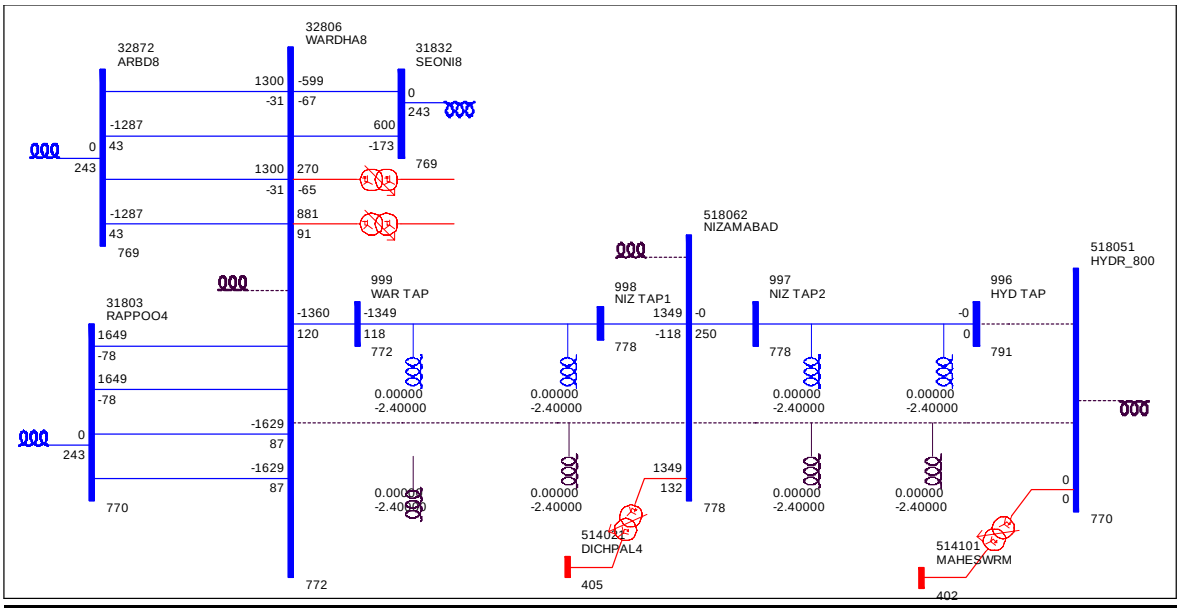


B. Charging of Nizamabad – Hyderabad 765kV D/c line

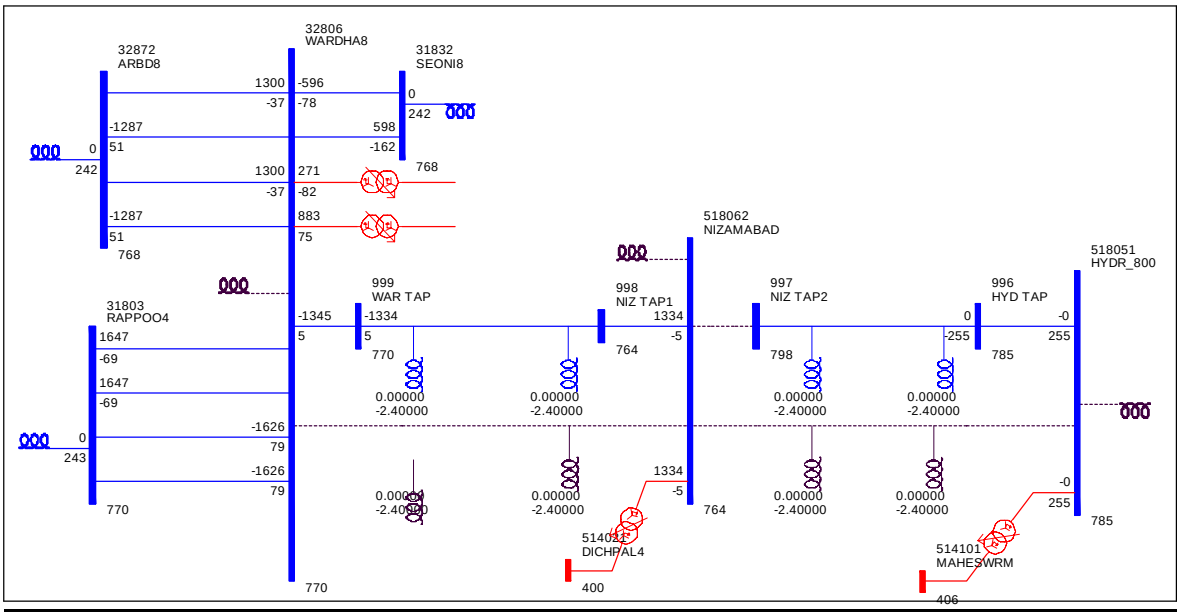
Pre-charging condition



On-charging (from Nizamabad end)



On-charging (from Hyderabad end)



Studies for Reactive Compensation for Substation Works associated with System StregtheningSrikakulam Pooling Station – Vemagiri Pooling Station 765kV D/c line

Studies for provision of Line Reactors on Sikakulam - Vemagiri 765 kV D/c line

Line Length: approx 350 km

Following results have been obtained while charging from either ends of transmission line, the relevant outputs are enclosed at **Exhibit-II**

Reactive Compensation proposed:

- 1x80 MVAR, 400 kV bus reactor at Vemagiri Pooling Station
- 2x240 MVAR, 765kV bus reactor at Vemagiri Pooling Station
- 1x240 MVAR Switchable line reactors for Srikakulam – Vemagiri 765 kV D/c line on each circuits at both the ends.

Charging from Srikakulam end without Line Reactors.

Source rise	–	37 kV
Line Rise	–	56 kV
Total Rise	–	93 kV

Charging from Vemagiri end without Line Reactors.

Source rise	–	341 kV
Line Rise	–	72 kV
Total Rise	–	413 kV

From the above it may be seen that charging the line from either of the ends without reactor shall lead to very high voltage at the open end and practically not possible to charge the lines under such conditions.

Accordingly, necessary line reactors were identified through reactive power planning studies for charging of the lines. Relevant charging studies are given at **Exhibit-II.**

Further to control the bus Voltages during off-peak conditions or while charging of the lines at Srikakulam and Vemagiri substations, necessary bus reactors were also identified.

Charging from Srikakulamend with 240 MVAR Line Reactor at both ends

Source rise	–	8 kV
Line Rise	–	22 kV
Total Rise	–	30 kV

Charging from Vemagiri end with 240 MVAR Line Reactor at both ends.

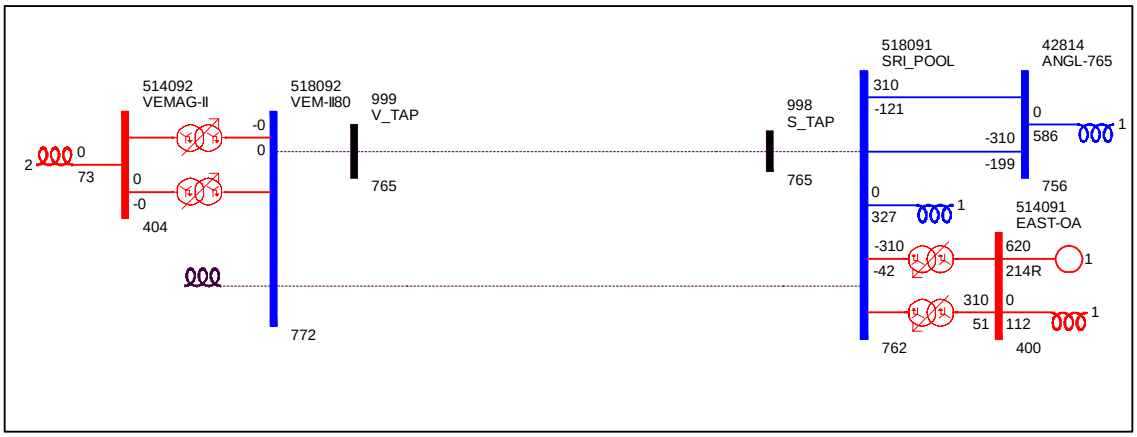
Source rise	–	80 kV
Line Rise	–	25 kV
Total Rise	–	105 kV

In view of weak connectivity at Vemagiri bus, the transmission lines cannot be charged from Vemagiri end, however studies were conducted for the same and the Srikakulam – Vemagiri 765 kV D/c line is preferred to be charged from Srikakulam end.

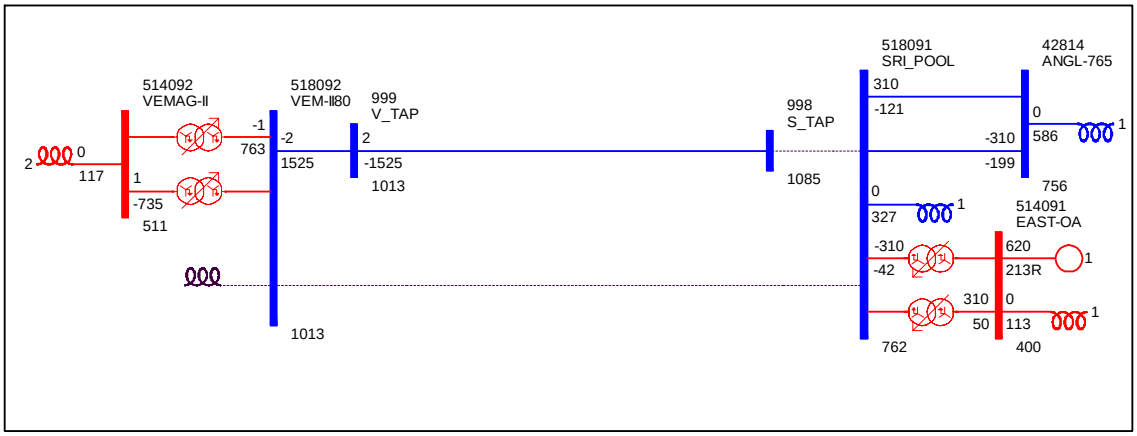
Exhibit-II

Charging of Srikakulam – Vemagiri 765kV D/c line without reactive compensation

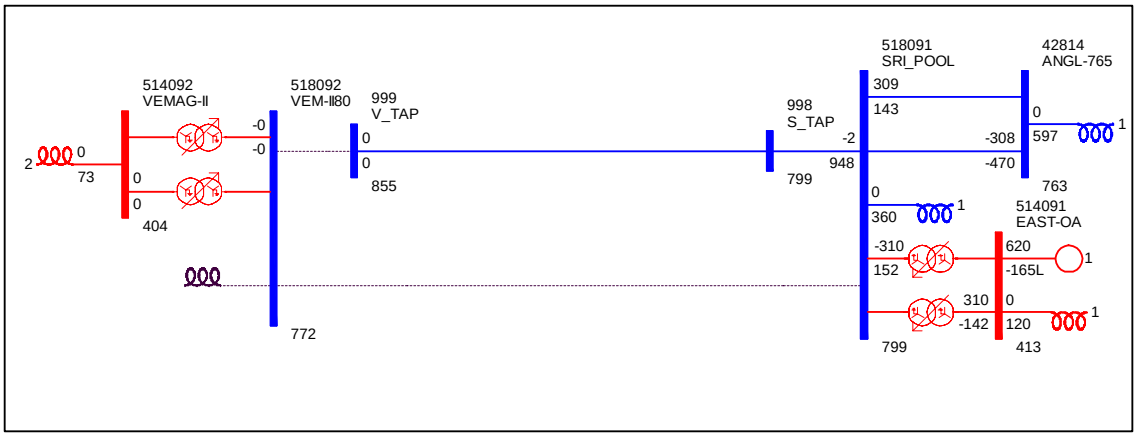
Pre-charging condition



On-charging condition (from Vemagiri end)

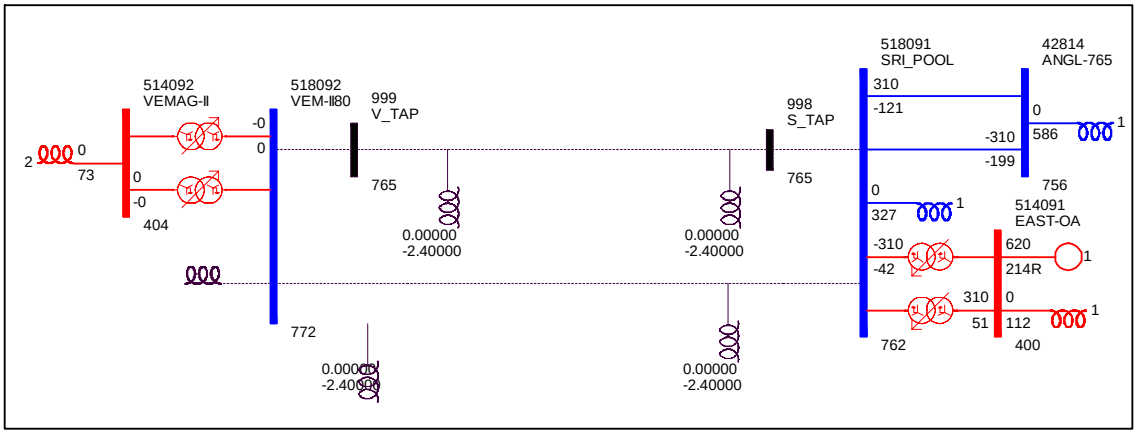


On-charging condition (from Srikakulam end)

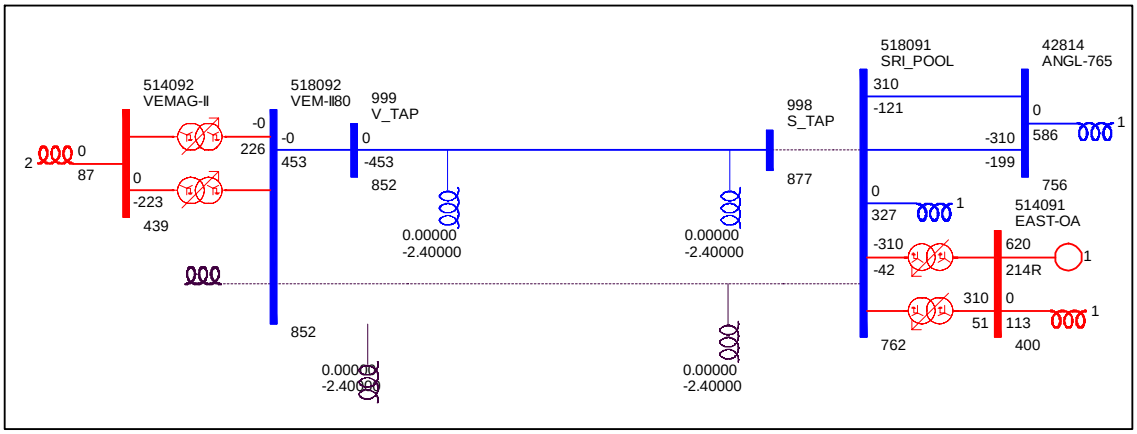


Charging of Srikakulam – Vemagiri 765kV D/c line with 240 MVAR with line reactors at both ends

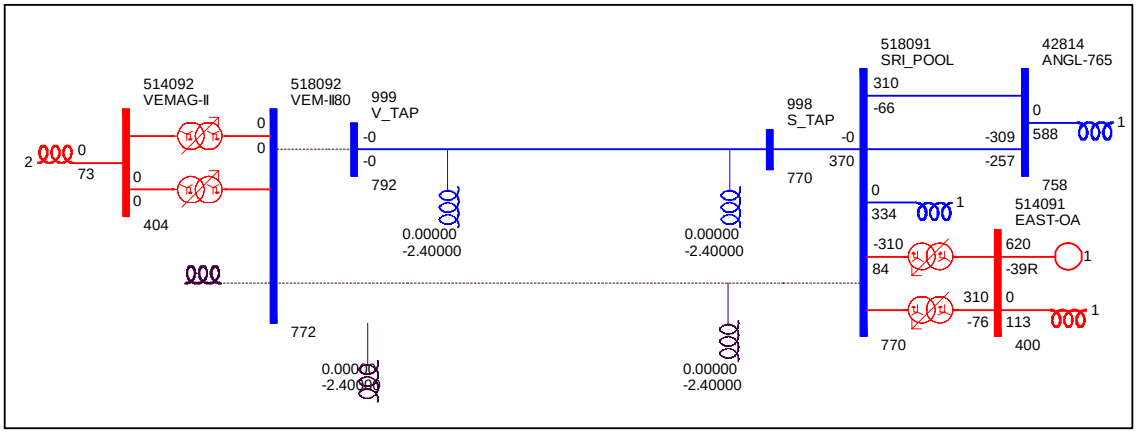
Pre-charging condition



On-charging condition (from Vemagiri end)



On-charging condition (from Srikakulam end)



Annexure-III

Studies for Reactive Compensation for Transmission System associated with ISGS Projects in Nagapattinam / Cuddalore area of Tamilnadu – Part A1 (b).

Studies for provision of Line Reactors on Nagapattinam Pooling Station – Salem New (Dharmapuri) 765kV D/c line& Salem New – Madhugiri 765 kV S/c line (both lines are initially charged at 400 kV)

Line Length:

- Nagapattinam Pooling Station – Salem New (Dharmapuri) 765kV D/c line– approx 270 Km
- Salem New – Madhugiri 765kV D/c line –approx 240 Km

Following results have been obtained while charging Nagapattinam Pooling Station – Salem New 765 kV D/c line &Salem (New) – Madhugiri 765 kV S/c line (both lines initially charged at 400 kV) without line reactors, the relevant outputs are enclosed at **Exhibit-III**

Charging of Nagapattinam Pooling Station – Salem (New) line from Nagapattinam Pooling Station end without line reactors

Source rise	–	06 kV
Line Rise	–	17 kV
Total Rise	–	23 kV

Charging of Nagapattinam Pooling Station – Salem (New) line from Dharmapuriend without line reactors

Source rise	–	03 kV
Line Rise	–	17 kV
Total Rise	–	20 kV

Charging of Salem New – Madhugiriline from Salem New (Dharmapuri) without line reactors

Source rise	–	03 kV
Line Rise	–	12 kV
Total Rise	–	15 kV

From the above it may be seen that charging of Nagapattinam Pooling Station – Salem New 765 kV line or charging of Salem New – Madhugiri 765 kV line without line reactors shall lead to very high voltages at the open end and practically not possible to charge the lines under such conditions.

Accordingly, necessary line reactors were identified through reactive power planning studies for charging of the lines. Relevant charging studies are given at **Exhibit-III**

Charging of Nagapattinam Pooling Station – Salem New (Dharmapuri) 765 kV line

From Nagapattinam end with 63 MVAR line reactors at both ends

Source rise	–	02 kV
Line Rise	–	06 kV
Total Rise	–	08 kV

From Salem New (Dharmapuri) end with 63 MVAR line reactors at both ends

Source rise	–	01 kV
Line Rise	–	06 kV
Total Rise	–	07 kV

Charging of Salem New (Dharmapuri) - Madhugiri 765 kV line

From Salem New end with 63 MVAR line reactor at Madhugiri end

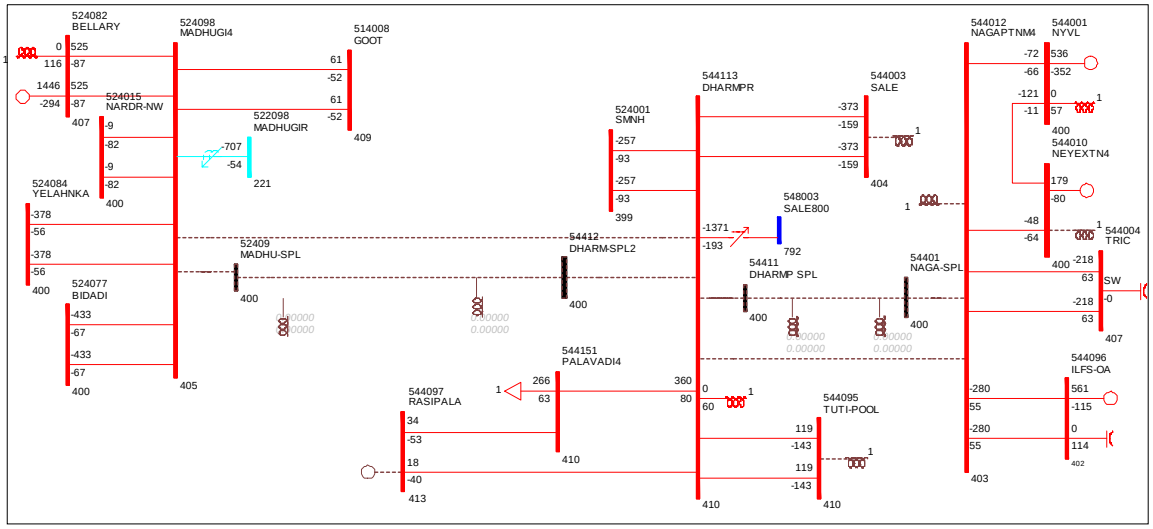
Source rise	–	02 kV
Line Rise	–	03 kV
Total Rise	–	05 kV

Exhibit-III

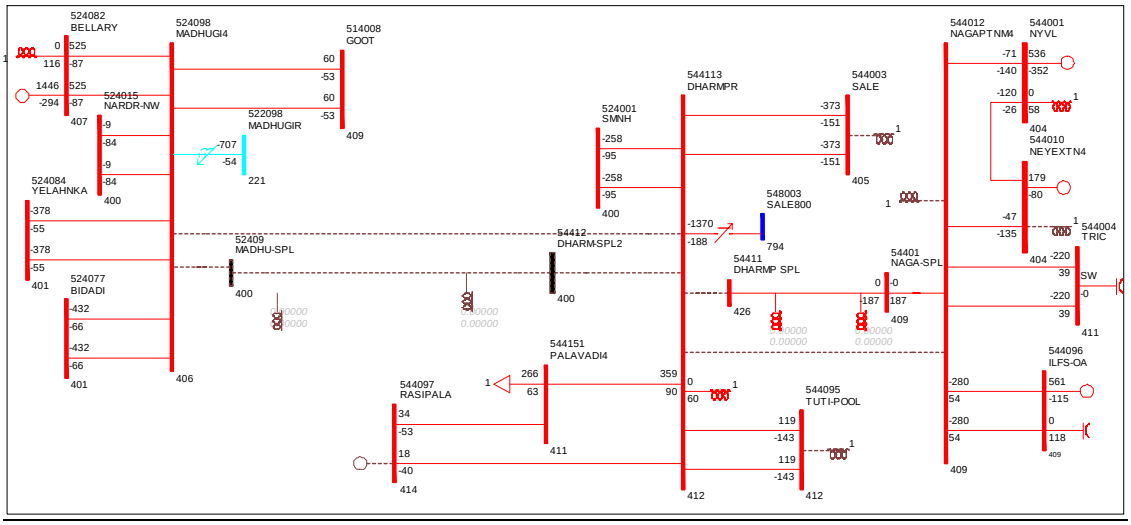
Charging of Nagapattinam Pooling Station – Salem New (Dharmapuri) 765kV D/c line& Salem New – Madhugiri 765 kV S/c line without reactive compensation

A. Charging of Nagapattinam Pooling Station – Salem New 765kV D/c line (charged at 400 kV)

Pre-charging condition

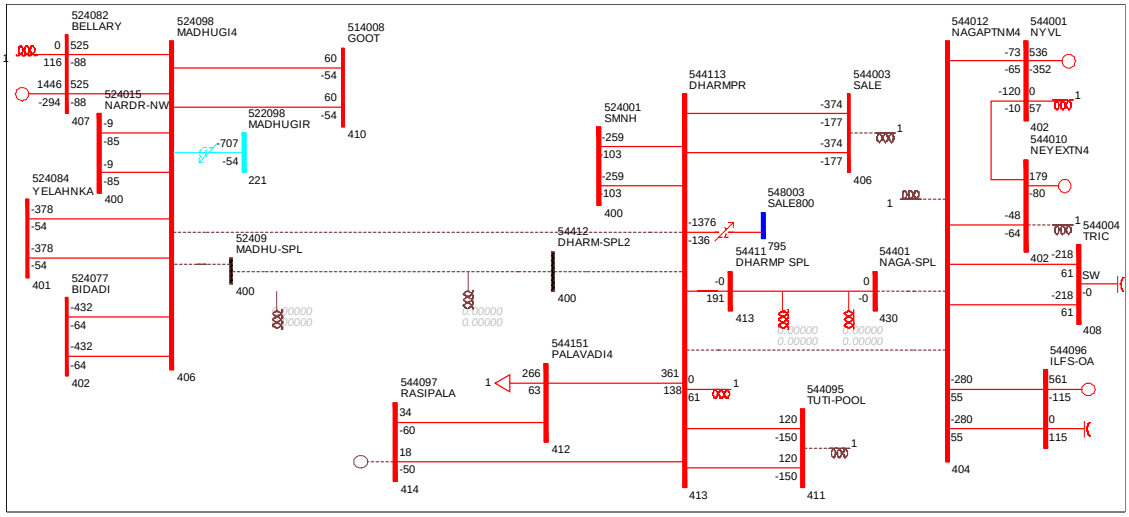


On-charging (from Nagapattinam Pooling Station end)



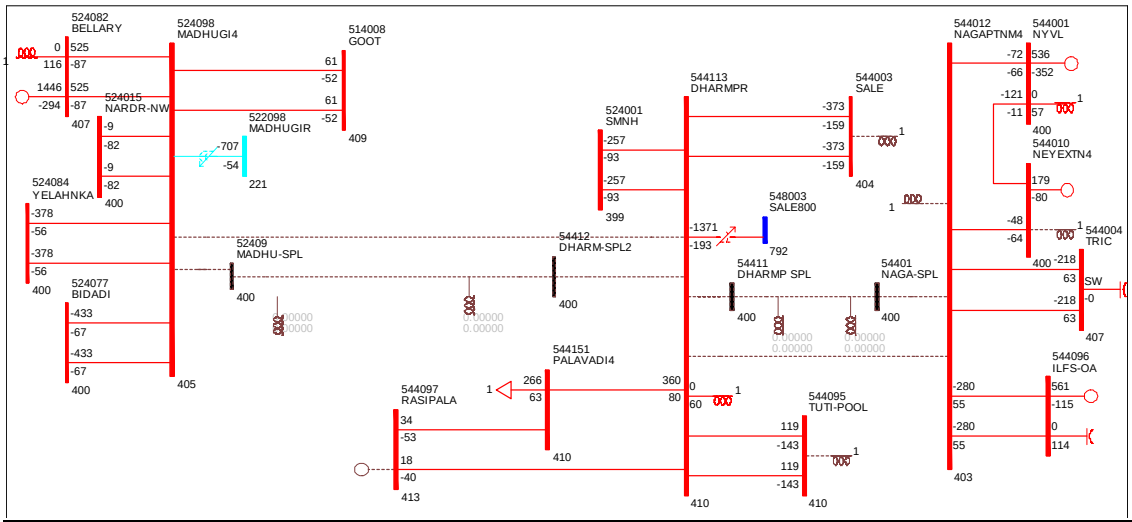
On-charging (from Salem New

end)

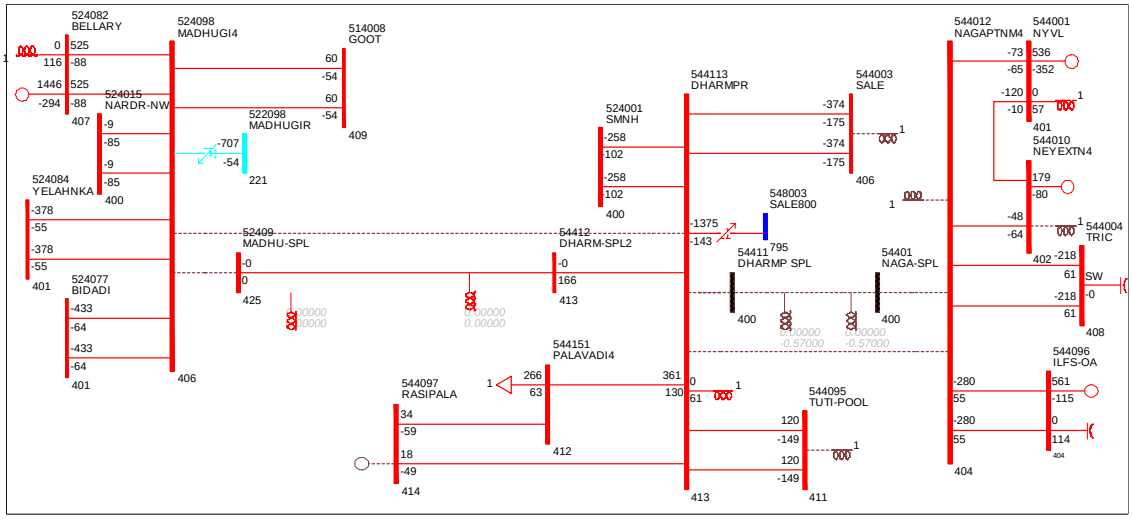


B. Charging of Salem New – Madhugiri765kV S/c line (charged at 400 kV)

Pre-charging condition



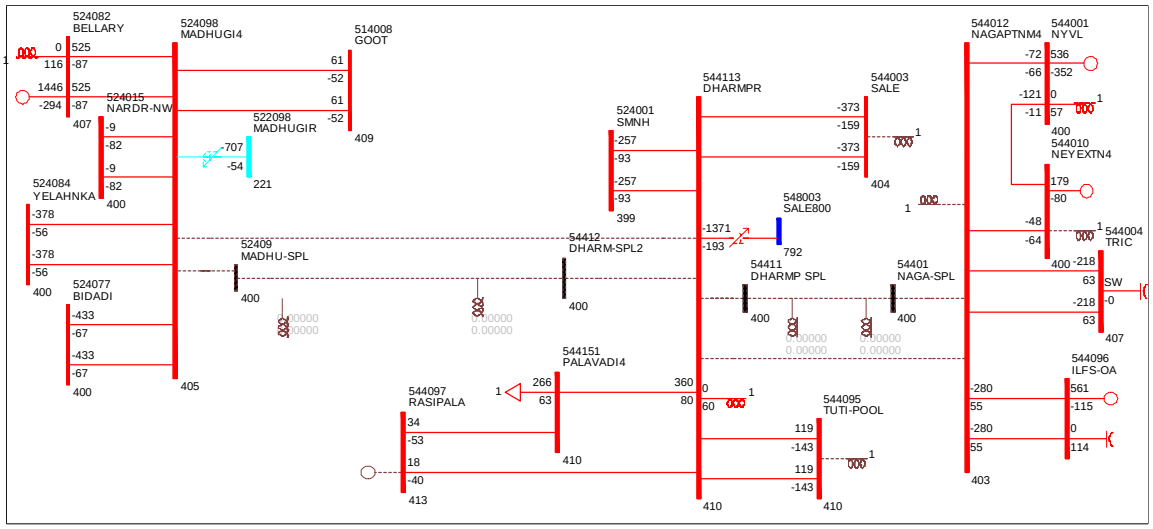
On-charging (from Salem New end)


524082
BELLARY
524098
MADHUGI4
514008
GOOT
524015
NARDR-NW
522098
MADHUGIR
524084
YELAHNKA
524077
BIDADI
406
409
221
400
401
52409
MADHU-SPL
425
54412
DHARM-SPL2
413
524001
SMNH
400
544113
DHARMPR
548003
SALE800
54411
DHARMP SPL
400
544003
SALE
406
54401
NAGA-SPL
400
544012
NAGAPTNM4
404
544001
NYVL
544010
NEYEXTN4
401
544004
TRIC
408
SW
544096
ILFS-OA
404
544151
PALAVADI4
412
544097
RASIPALA
414
544095
TUTI-POOL
411
413

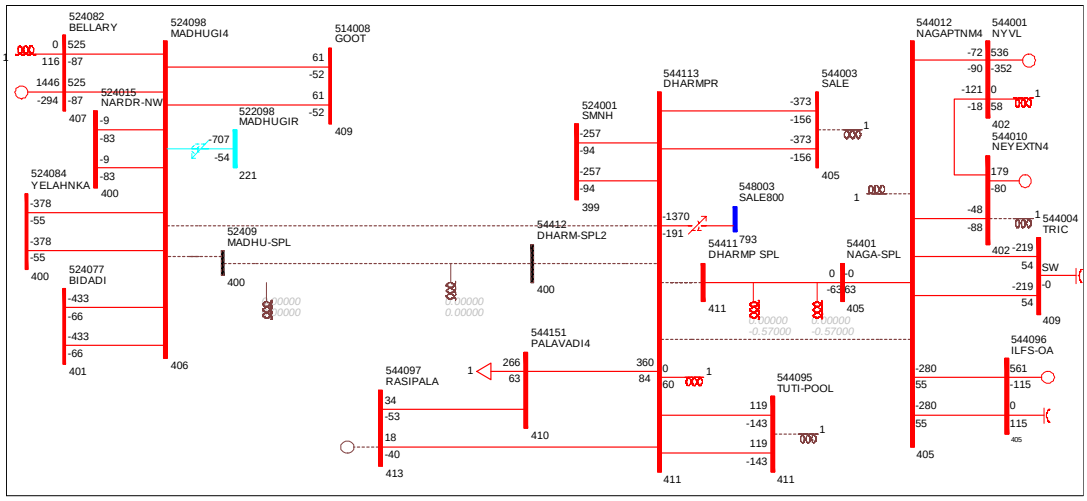
Charging of Nagapattinam Pooling Station – Salem New (Dharmapuri) 765kV D/c line& Salem New – Madhugiri 765 kV S/c line with reactive compensation

A. Charging of Nagapattinam Pooling Station – Salem New 765kV D/c line (charged at 400 kV)

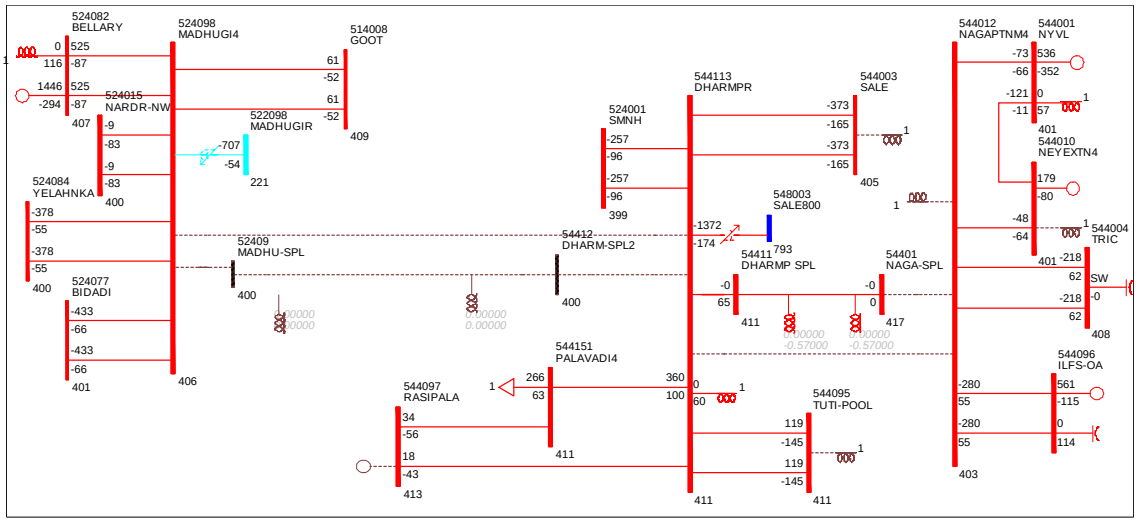
Pre-charging condition



On-charging (from Nagapattinam Pooling end)

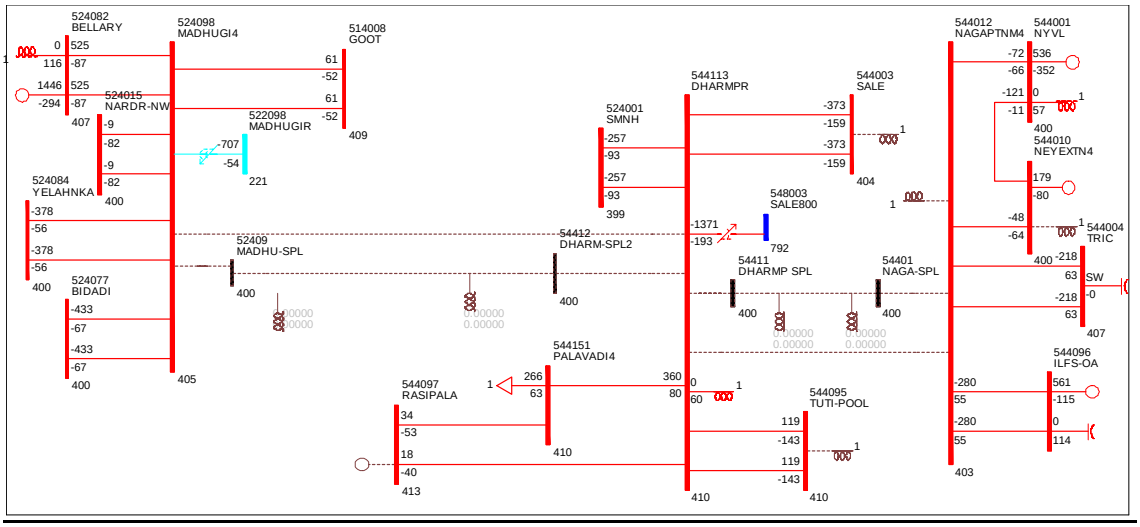


On-charging (from Salem New end)

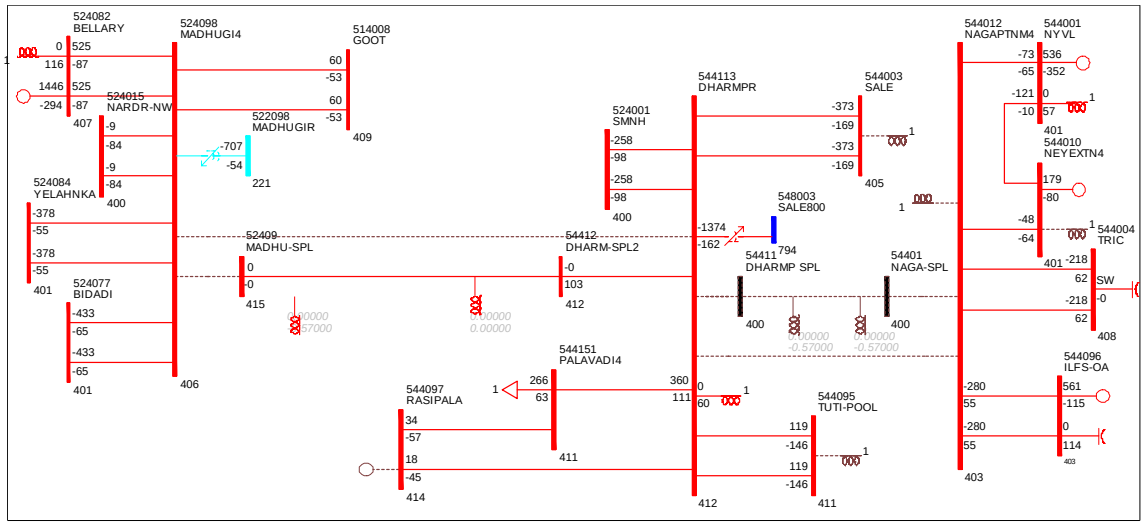


B. Charging of Salem New – Madhugiri765kV D/c line (initially charged at 400 kV)

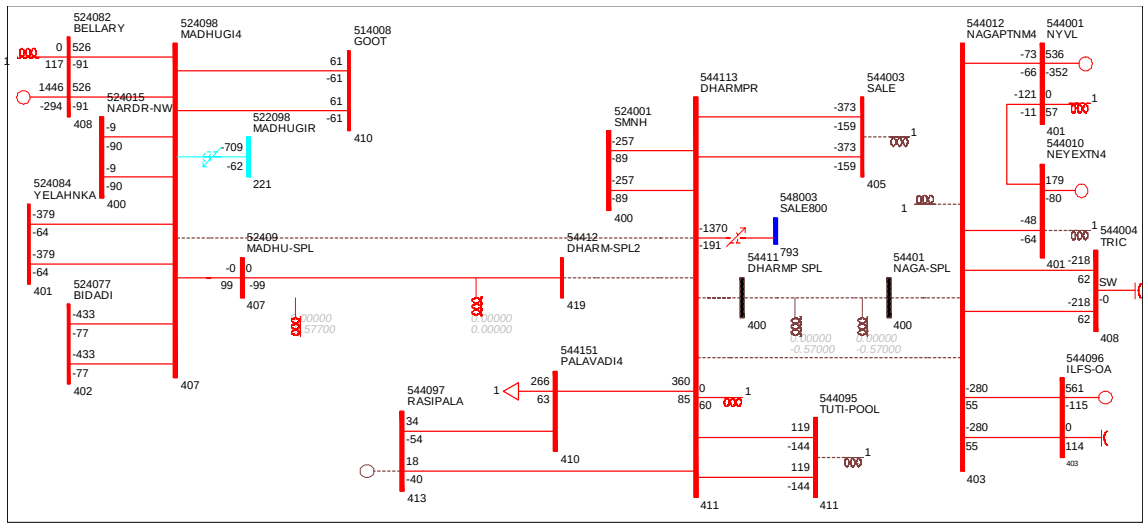
Pre-charging condition



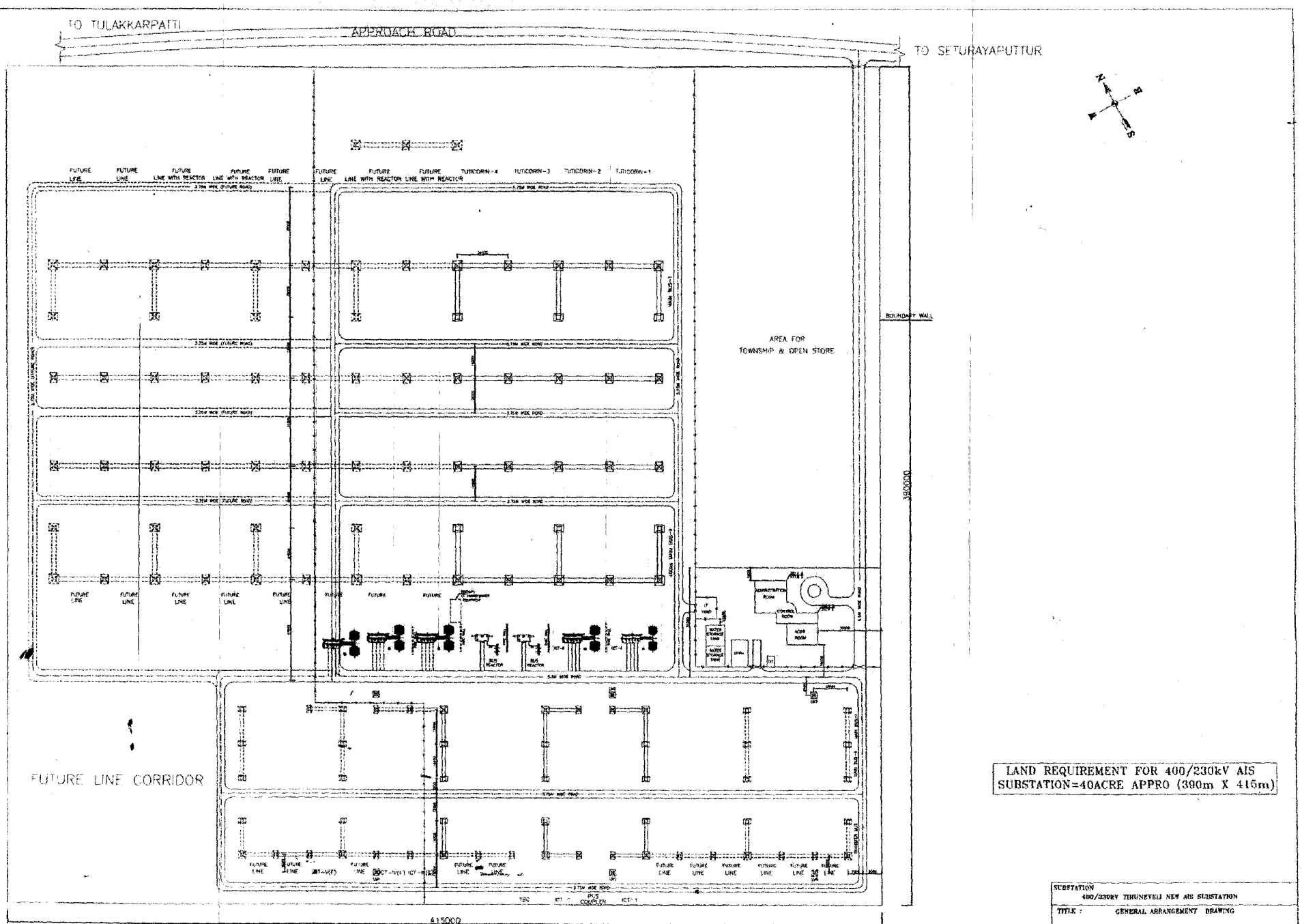
On-charging (from Salem New end)



On-charging (from Mdhugiri end)



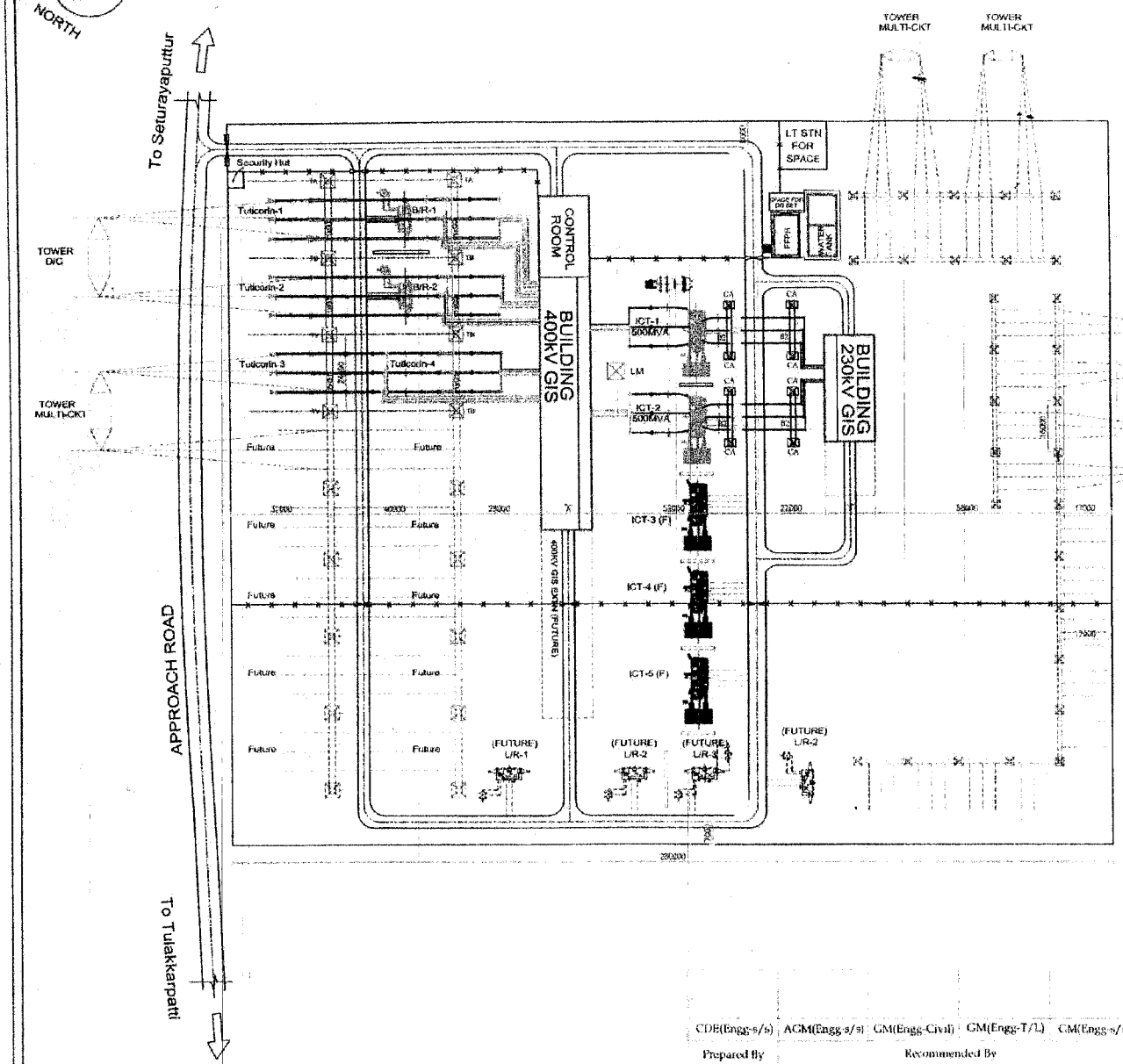
Annex - 11.1



LAND REQUIREMENT FOR 400/230kV AIS SUBSTATION=40ACRE APPRO (390m X 415m)

SUBSTATION	400/230KV TIRUNELVELI NEW AIS SUBSTATION
TITLE :	GENERAL ARRANGEMENT DRAWING
DATE : JUNE 2014	REV : 0

Annex – 11.2



NOTE:-

LEGEND:-

PRESENT SCOPE

FUTURE SCOPE

FOR TENDER PURPOSE ONLY

POWER GRID CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)

PROJECT: GREEN ENERGY CORRIDORS-ISTS-Part-A

SUBSTATION: 400/230KV TIRUNEVELI (NEW) GIS POOLING STATION

TITLE: GENERAL ARRANGEMENT – 400/230kV

DATE	SCALE	DRG.NO.	RE
	N.T.S	C/ENG/SR-II/GEC/TVL-PS/GA/001	0

CDE(Engg-s/s)	AGM(Engg-s/s)	GM(Engg-Civil)	GM(Engg-T/L)	CM(Engg-s/s)	ED (Engg.)
Prepared By		Recommended By			Approved By

Annex – 13.1

By speed post

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

From:	To
The Chief Engineer (Power Systems),	The Chief Engineer (SP &PA),
APTRANSCO,	Central Electricity Authority,
Vidyut Soudha,	Seva Bhavan, R.K.Puram,
Hyderabad – 500 082	NEW DELHI – 110 066

Lr. No. CE(PS)/SE(SP)/DE(SS)/F.Case1/ D.No. 182 /2013 Dt.18-10-2013

Sir,

Sub: APTRANSCO - Case-1 Bidding - Procurement of 1050 MW from three generators – Evacuation scheme -Reg.

***

APCPDCL on behalf of APDISCOMs have informed that they have floated tender for procurement of 2000 +/- 20% MW for 25 years from 2015 onwards under case-I bidding and the following three bidders are declared successful.

- M/s Thermal Power Tech.Ltd., Nellore Dt. (500 MW)
- M/s Krishnapatnam Power Corporation Ltd. Nellore Dt. (250 MW)
- M/s PTC India Limited (East Coast Energy Pvt Ltd) Srikakulam Dt. (300 MW)

APCPDCL requested APTRANSCO for formulation of a Transmission evacuation scheme to evacuate 1050 MW power from the switch yards of above three generators as per bid clause.

Accordingly, System Studies were carried out and APTRANSCO approved the following evacuation scheme to draw part power from the above generators into the STU network.

(A) Proposed Scheme at Nellore for evacuation of 750 MW (500MW power from M/s Thermal Power Tech.Ltd and 250 MW power from M/s Krishnapatnam Power Corporation Ltd.)		
Sl No.	**Description**	**Qty**
1	400 kV Pooling SS with 4x315 MVA at Krishnapatnam /Nellore	1 No.
2	400 kV Twin Moose DC line from the 400kV Pooling SS to 400kV Podili SS	100 km
3	400 kV Twin Moose DC line from the 400kV Pooling SS to the generator M/s Thermal Power Tech. Ltd.	30 km
4	400 kV Twin Moose DC line from the 400kV Pooling SS to the generator M/s Krishnapatnam Power Corp. Ltd.	30 km

Three speed post covers
19/10/13

5	220 kV New line with Moose equivalent HTLS conductor (To make LILO of 3 Nos. 220 kV ckts between 220kV Nellore and 400kV Manubolu SS)	6x20 km
6	Re-conductoring of Existing 3 Ckts between 220 kV Nellore and 400 kV Manubolu SS with Moose equivalent HTLS conductor	3x25 km

(B)	**Proposed Schemes at Tekkali, Srikakulam Dt. for evacuation of 300 MW (300 MW power from M/s PTC India Limited (East Coast Energy Pvt Ltd))**	
Sl No.	**Description**	**Qty.**
1	400/220 kV at Tekkali/ near by Generator SS 2x315 MVA	1 No.
2	220 kV DC Circuit with Moose equivalent HTLS conductor from the proposed 400/220kV Tekkali SS to 220/132kV Tekkali SS	15 Km
3	220 kV 2nd Ckt Stringing between 220kV Garividi SS - 220kV Tekkali SS	92 km

In this regard, it is requested to examine the above schemes and to give in principle approval before including the same in the forthcoming Standing Committee meeting as an agenda item for discussion. The Study results with different scenarios are herewith enclosed for reference.

Yours faithfully,

Encl: As above

18/10/13

Chief Engineer (Power Systems)

Copy to:

Sri Pardeep Jindal,
Director (SP&PA)
Central Electricity Authority,
Seva Bhavan, R.K.Puram,
NEW DELHI – 110 066

Sri Dilip Rozekar, DGM(SEF)
PGCIL,
'Saudamini' Plot No.2 Sector-29,
GURGAON – 122001, Haryana.

Annex – 13.2

Thermal Powertech Corporation India Ltd
6-3-1090, 2nd Floor, C-Block
TSR Towers, Rajbhavan Road, Somajiguda
Hyderabad 500082, Andhra Pradesh, India
Tel (91) 40 4904 8300 / 2331 0350
Fax (91) 40 2337 0360
www.tpcil.com

No. TPCIL/Com-CEA/13-14/21

To,
Shri. Pardeep Jindal,
Director, Central Electricity Authority,
Sewa Bhavan, RK Puram,
New Delhi – 110 066.
Tel: 011-26198092, 26732325
Fax: 011- 26102045

27th June, 2013

Sub: **Thermal Powertech Transmission Issues – PGCIL vs AP Transco**
Ref: 1. Letter from AP Transco
2. Letter from PGCIL

Dear Sir,

We thank you for the courtesy extended during the meeting in your good office on 27th June'13. As discussed we would like to highlight the issues faced by Thermal Powertech Corporation India Ltd. on account of Transmission agreement entered between PGCIL and PPA entered with AP DISCOMs.

TPCIL has signed BPTA and LTOA with PGCIL for evacuation of entire 1320 MW (2X660 MW) capacity in December 2010. Power evacuation will be through 400kV D/c from TPCIL switchyard to Nellore pooling station (being constructed by PGCIL for TPCIL) and further connecting to Southern Region via Gooty line at 400kV, Munubulu at 400kV and Western region via Kurnool-Raichur-Sholapur thru 765kV system (detailed scheme attached herewith).

Additionally, TPCIL has signed 500 MW long term PPA (25 years) with 4 DISCOMS of Andhra Pradesh (APCPDCL, APSPDCL, APNPDCL and APEPDCL) on 1st April 2013. TPCIL project is progressing on schedule and 1st Unit COD is scheduled in May 2014 and 2nd Unit is scheduled in Aug 2014.

We would like to inform you that, the PPA signed with AP DISCOMs is at ex-bus bar of TPCIL switchyard and as per terms and conditions of PPA; DISCOMs will be responsible for evacuation of power from TPCIL bus bar. APCPDCL has communicated that State Transco i.e. AP Transco will be constructing required transmission lines for evacuation of 500 MW from TPCIL. Accordingly, the PGCIL lines may not be fully utilized in the event AP Transco lines are used for transmission.

Since TPCIL has signed the BPTA/LTOA with PGCIL and the lines being in advance stage of construction, TPCIL would want to utilize the same for evacuation. However, the PPA conditions may not allow TPCIL to do so. Also, TPCIL may also face technical issues for metering and billing in the event both STU and CTU are connected in our switchyard.

AP Transco was fully involved in planning of Southern Region transmission system along with CEA and PGCIL and since AP is yet to initiate the line construction, we requested AP to utilize the existing CTU system; however AP has refused to do the same (APCPDCL letter enclosed herewith). At the other end, PGCIL has also communicated that TPCIL needs to pay the transmission charges for entire LTOA quantum irrespective of its actual utilization.

Thermal Powertech Corp. India Ltd. Hyderabad

thermal powertech

Thermal Powertech Corporation India Ltd
6-3-1090, 2nd Floor, C-Block
TSR Towers, Rajbhavan Road, Somajiguda
Hyderabad 500082, Andhra Pradesh, India
Tel (91) 40 4904 8300 / 2331 0350
Fax (91) 40 2337 0360
www.tpcil.com

We hereby request CEA to take up the matter with PGCIL/AP Transco to avoid creation of parallel asset and help us in finding amicable solution.

Thanking You,

Yours faithfully,
For Thermal Powertech Corporation India Limited

Thermal Powertech Corp. India Ltd. Hyderabad

Rajesh Prabhakar Zoldeo
Vice President (Commercial and Operations)
6-3-1090, Block C Level 2, T.S.R Towers,
Rajbhavan Road, Somajiguda,
Hyderabad – 500 082, India
DID : +91 4049048325/Mobile +91 8008700714

Copy to:
Shri Ravinder, Member (Power Systems), CEA, Sewa Bhavan, R.K.Puram New Delhi – 110 066

Enclosure: 1. Presentation on TPCIL transmission issues
2 .Letters from APCPDCL and PGCIL