

**Central Electricity Authority  
System Planning & Project Appraisal Division  
Sewa Bhawan, R.K. Puram, New Delhi – 110066**

No. 51/4/SP&PA-2015/573-506

Date: 02-Mar-2015

**Sub: 38th meeting** of the Standing Committee on Power System Planning of Southern Region - **Additional Agenda** for the meeting

Sir,

The **38th meeting** of the Standing Committee on Power System Planning of Southern Region **is to be held on 7<sup>th</sup> March 2015 (Saturday)** at NRPC Katwaria Sarai, New Delhi. **An Additional Agenda** is enclosed. The agenda is available at CEA's website ( [www.cea.nic.in](http://www.cea.nic.in) ).

Agenda of the meeting has already been circulated. The meeting will commence at 11:00 AM. Please make it convenient to attend the meeting.

Yours faithfully,



(Pardeep Jindal)  
Director (SP&PA)

(Telephone: 011 26732325, Fax No. 011 26102045)

To

1. The Member Secretary, Southern Regional Power Committee, 29, Race Course Cross Road, Bangalore 560 009. FAX : 080-22259343	2. The Director (Projects), Power Grid Corp. of India Ltd. "Saudamini", Plot No.2, Sector-29, Gurgaon 122 001, Haryana. FAX : 95124-2571932
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3. CEO, POSOCO, B-9, Qutub Institutional Area, Katwaria Sarai, <b>New Delhi-110016</b>	4. The Director (Transmission), Karnataka State Power Trans. Corp.Ltd., Cauvery Bhawan, <b>Bangalore - 560 009.</b> <b>FAX : 080 -22228367</b>
5.The Director (Transmission), Transmission Corp. of Andhra Pradesh Ltd., (APTRANSCO) Vidyut Soudha, <b>Hyderabad – 500 082.</b> <b>FAX : 040-66665137</b>	6. The Director ( Grid Transmission and Management), Transmission Corp. of Telangana Ltd., (TSTRANSCO) Vidyut Soudha, Khairatabad <b>Hyderabad – 500 082.</b> <b>FAX : 040-23321751</b>
7. The Director (Trans. & System Op.), Kerala State Electricity Board, Vidyuthi Bhawanam, Pattom, <b>Thiruvananthapuram - 695 004.</b> <b>FAX : 0471-2444738</b>	8. Member (Distribution), Tamil Nadu electricity Board (TNEB), 6 <sup>th</sup> Floor, Eastern Wing, 800 Anna Salai, <b>Chennai - 600002.</b> <b>FAX : 044-28516362</b>
9. The Director (Power), Corporate Office, Block – I, Neyveli Lignite Corp. Ltd., <b>Neyveli , Tamil Nadu – 607 801.</b> <b>FAX : 04142-252650</b>	10. The Superintending Engineer –I, First Floor, Electricity Department, Gingy Salai, Puducherry – 605 001. <b>FAX : 0413-2334277/2331556</b>
11. Director (Projects), National Thermal Power Corp. Ltd. (NTPC), NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, <b>New Delhi-110003.</b> <b>FAX-011-24360912</b>	12. Director (Operations), NPCIL, 12th Floor, Vikram Sarabhai Bhawan, Anushakti Nagar, Mumbai – 400 094. <b>FAX : 022- 25991258</b>

Copy to:

1.	The Director (Projects), Power Grid Corp. of India Ltd. “Saudamini”, Plot No.2, Sector-29, <b>Gurgaon 122 001, Haryana.</b> <b>95124-2571932</b>
2.	GM, SRLDC, 29, Race Course Cross Road, Bangalore 560 009 <b>FAX – 080-22268725</b>

**Additional Agenda Note for 38th Meeting of Standing Committee on Power System Planning in Southern Region (SCPSPSR)**

**Date:** 7<sup>th</sup> March 2015 (Saturday)

**Venue:** at NRPC Katwaria Sarai, New Delhi

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**20.0 ATS Tuticorin JV (2x500 MW) TPS of M/s NTPL**

**20.1** M/s NTPL (NLC Tamilnadu Power Ltd) vide their letter No CEO/ NTPL/Elect /PGCIL/4413/2014 dated 02.12.2014 has stated that - for power evacuation from 2x500 MW NTPL Tuticorin JV Thermal Power Project, , the following evacuation system has been agreed:

- (a) 400 kV Tuticorin JV TPS – Chekkanurani (Madurai) D/C Quad
- (b) 2 x 315 MVA, 400 kV/220 kV ICT at Tuticorin JV TPS
- (c) LILO of one of the 220 kV circuits of 230 KV TTPS – Tuticorin Auto SS feeders

Accordingly, M/s. PGCIL has erected 2 nos. of 400kV NTPL - Madurai DC Quad feeder lines and M/s TANTRANSOCO has erected 220kV LILO arrangement on 230kV TTPS-Auto SS feeder No.1.

**20.2** M/s NTPL has expressed following concern regarding evacuation of power from their 1000 MW project:

- (a) Presently, NTPL draws start up power from 400kV system through 315 MVA, 400kV/230 kV ICT and 63 MVA, 230kV/11 KV station transformers. The 400kV NTPL – Madurai line, the 400kV NTPL – Coastal Energen line, and the 400kV Coastal Energen – Madurai feeders are in service. Arrangement is being made to commission 220kV NTPL-TTPS and 220kV NTPL – Auto SS LILO feeders also.
- (b) Coastal Energen has already synchronized 1st of its 2x600 MW units and is likely to utilize LILO arrangement for power evacuation. NTPL is scheduled to synchronize 1st of its 2x500 MW units by second week of December, 2014.
- (c) Once power generation is commenced fully from 2x500 MW NTPL and

2 x600 MW Coastal Energen generating stations, only 2 nos. of 400kV feeders are available for evacuation of about 2000 MW from the NTPL and Coastal Energen's plants. Tripping of 400kV NTPL – Madurai or 400kV Coastal Energen – Madurai feeder will adversely affect NTPL generation and evacuation system.

(d) NTPL has informed that M/s. PGCIL is scheduled to commission 400kV system of its 400kV/765kV pooling station at Ettayapuram, near Tuticorin shortly with 4 nos. of 400 KV bays. The existing 400kV NTPL – Madurai and 400kV Coastal Energen – Madurai feeders will be shifted to pooling station. However, the 400kV tie between NTPL and M/s Coastal Energen would continue. So, with only 2 nos. of 400kV Ettayapuram PS – Madurai feeders being available, stability of power evacuation system of NTPL would be of concern.

**20.3** With reference to above para, it may be noted that - for evacuation Coastal Energen is to construct a 400kV Quad D/C line from its switchyard to Tuticorin Pooling Station. As an interim arrangement, this line has been part completed by making LILO of one circuit of the NTPL – Madurai D/C line. Schematic diagram is given under the **Annex\_20**.

**20.4** NTPL has requested that 400kV transmission system for NTPL power evacuation may please be reviewed in accordance with minutes of 22nd and 31st meetings of the SCPSPSR and for accordingly priority for NTPL power evacuation and to ensure the reliability of NTPL evacuation system, in case of tripping of 400kV feeders.

**20.5** PGCIL, NTPL/TNEB may present. Members may discuss.

## **21.0 Change in SCCL Evacuation scheme:**

**21.1** M/s TSTRANSCO (Transmission Corporation of Telangana Limited) vide their letter dated 24-02-2015 has proposed system for evacuation of power from 3<sup>rd</sup> unit of 1x600 MW at the Singareni TPS at Jaipur location near Nirmal in Telangana.

**21.2** TSTRANSCO has proposed that the SCCL – Nirmal 400 kV D/c line which was planned as evacuation system for 2x600 MW of SCCL, may be planned as Quad Moose line instead of Twin Moose line.

**21.3** In this regard, it may be noted that following transmission system was firmed up and agreed in the 35th meeting of the SCPSPSR, held on 4<sup>th</sup> January, 2013 for two units of SCCL (2x600 MW).

**a) For Nirmal 400kV S/S and Transmission system for (SCCL) Generation Project (2x600MW):**

- (i) Establishment of a 400/220kV Nirmal S/S with 2x315 MVA transformer
- (ii) Singareni Collieries (SCCL) Generation Project - Nirmal, 400kV D/c line
- (ii) Singareni Collieries (SCCL) Project - Gajwel, 400kV D/c quad line.

**b) For Narsapur 400kV S/S and Transmission system for Singareni Collieries (SCCL) Generation Project (2x600MW):**

- (i) Establishment of a 400/220kV Narsapur S/S with 3x315 MVA transformers
- (ii) Gajwel – Narsapur, 400kV D/c line
- (iii) Narsapur to Gummdidala, Shapur Nagar Extension and Bachupally / Miyapur, 220kV D/C lines

**21.4 Further, following transmission system has been planned in the area for Lift Irrigation scheme:**

- a) Erection of 400kV S/S at Ramadugu (Pkg-8).
- b) Erection of 400kV S/S at Choppadandi (Pkg-7) with 2x315 MVA ICTs.
- c) Erection of 400kV S/S at Myadaram (Pkg-6)
- d) Erection of 400kV S/S at Tippapur (Pkg-10)
- e) Erection of a 132kV S/S 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.

**21.5** Along with the Wardha – Nizamabad - Hyderabad 765kV D/C line, following system is being implemented for the Nizamabad 765/400kV S/s:

1. Establishment of Nizamabad 765/400kV substation with 2x1500 MVA transformers
2. Nizamabad – Dichpalli 400kV D/c line
3. Nizamabad – Yeddumailaram (Shankarapalli) 400kV D/c line
4. LILO of Nizamabad – Yeddumailaram (Shankarpalli) 400kV D/c line at Narsapur – by APTRANSCO

**21.6** Further for evacuation of power from 2x600 MW of Bhopalpalli TPS, following system is under construction/ part completed:

- i) Bhopalapally- Gajwel 400kV D/C line
- ii) Bhopalapally- Warangal 400kV D/C line

**21.7** TSTRANSCO has also submitted a copy of APERC communication dated 18.07.2014 in which a LILO of both circuits of Gajwel – Shankarpalli (Yeddumailaram) at Narsapur substation has been approved by APERC. This is different from the agreed system wherein connectivity was from Gajwel to Narsapur instead of LILO of the Gajwel – Yeddumailaram lines.

**21.8** Considering all the above, it is felt that to evacuate power from SCCL having total capacity of 1800 MW and meeting the reliability requirements as per the Transmission Planning Criteria, detailed system studies are needed.

**21.9** To go ahead, the SCCL –Nirmal 400 kV Twin Moose D/C line may be planned as Quad D/C instead of Twin as envisaged earlier. Additional transmissions system strengthening beyond Gajwel and Nirmal may be needed. Thus the transmission system for evacuation of power from the 3<sup>rd</sup> unit may be firmed up only after the detailed studies.

**21.10** TSTRANSCO may present. Members may discuss.

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**22.0 Additional inputs regarding evacuation of 1000 MW power from Solar Park at Gani/ Panyam in Kurnool, Andhra Pradesh from APTRANSCO**

**22.1** APTRANSCO vide their letter no CE(IPC&PS) /SE(PS)/ DE(SS&LTSS)/ F.Panyam/ D.No.34/15, Dt.24-02-15 has given additional proposal/ studies for evacuation of power form 1000 MW Solar Park at Panyam (**Copy at Annex-17.0-Part-2**). These include studies corresponding to following three load-generation scenarios. The studies assume that annual peak load for the State of Andhra Pradesh would be 10,500 MW by end of 2016-17 and assuming Capacity factor wind as 68% and for Solar as 80%:

- a. **Scenario – 1:** Peak load with full despatch from Wind and Solar projects
- b. **Scenario – 3:** Peak load without any dispatch from Wind and Solar projects
- c. **Scenario – 2:** Off-peak (i.e. 70% of peak) with full dispatch from wind and Solar projects.

**22.2** Results for base case load flow and contingencies studies for above three load generation scenarios are as given below:

Sl. No.	Load Generation Scenario	Base/contingency Case	Exhibit No.
1	Scenario – 1	Base Case	1
2	Scenario – 2	Base Case	2
3	Scenario – 3	Base Case	3
4	Scenario – 1	Outage of 400kV Panyam – Kurnool DC line	4
5	Scenario – 2	Outage of 400kV Panyam – Kurnool DC line	5
6	Scenario – 3	Outage of 400kV Panyam – Kurnool DC line	6

**Annex – 20.0**

**Agenda Item # 20.0**

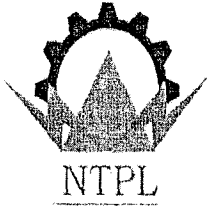
**“ATS Tuticorin JV (2x500 MW) TPS of M/s NTPL”**

<b>1</b>	NTPL letter	3 Pages
<b>2</b>	PGCIL letter	1 Page



By Speedpost

4949



**NLC TAMILNADU POWER LIMITED**  
(A JV COMPANY OF NLC & TANGEDCO & subsidiary of NLC)  
Regd. Office: "Neyveli House", 135, Periyar EVR HIGH Road, Chennai 600010.  
**Office of the Chief Executive Officer**  
2\*500 MW JV Thermal Power Project, Harbour Estate, TUTICORIN- 628004  
Fax: 0461-2352480, Phone : 0461-2352844  
E-mail: ceo.ntpl@nclindia.com, Web : www.ntplpower.com

Lr. CEO/NTPL/Elect/PGCIL/4413/2014

Dt.02.12.2014

To

The Chief Operating Officer (CTU),  
Power Grid Corporation of India Ltd.,  
'Savdamini', Plot No.2, Sector 29,  
Gurgaon – 122 001, Haryana.

Fax No.: 95124 - 25719

Sir,

Sub: NTPL – Tuticorin – 2x 500 MW Thermal Power Project – Request to review the current status of power evacuation system through 400 KV grid - Reg.

Ref: 1. 22<sup>nd</sup> meeting of the standing committee on power system planning of south region held on 17.08.2006 at SRPC, Bangalore

2. 31<sup>st</sup> meeting of the standing committee on power system planning of south region held on 16.11.2010 at SRPC, Bangalore

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1. Vide references 1 and 2 cited above, for 2 x 500 MW NTPL Tuticorin JV Thermal Power Project, for power evacuation, the following evacuation system was agreed.

- a) 400 KV Tuticorin JV TPS – Chekkanurani (Madurai) D/C Quad
- b) 2 x 315 MVA, 400 KV/220 KV ICT at Tuticorin JV TPS
- c) LILO of one of the 220 KV circuits of 230 KV TTPS – Tuticorin Auto SS feeders

1861/M(PS)114  
9/12/14

1698/SP&PA  
10.12.14

Shri P T  
Director  
CE (SP&PA)

2. Accordingly, M/s. PGCIL erected 2 Nos. of 400 KV NTPL-Madurai DC Quad feeder lines and M/s. TANTRANSOCO erected 220 KV LILO arrangement on 230 KV TTPS-Auto SS feeder No.1.
3. In December 2013, M/s. PGCIL charged 400 KV LILO arrangement in one of the 400 KV NTPL - Madurai feeders to integrate 400 KV system of 2 x 600 MW M/s. Coastal Ener. Gen. with the grid. 400 KV NTPL-Madurai, 400 KV M/s. Coastal Ener. Gen. Feeders were commissioned in June/2014 and Aug/2014 respectively.
4. Presently, NTPL draws start up power from 400 KV system through 315 MVA, 400 KV/230 KV ICT and 63 MVA, 230 KV/11 KV station transformers. 400 KV NTPL - Madurai, 400 KV NTPL - Coastal Ener. Gen. and 400 KV Coastal Ener. Gen. – Madurai feeders are in service. Arrangement is being made to commission 220 KV NTPL - TTPS and 220 KV NTPL - Auto SS LILO feeders.
5. M/s. Coastal Ener. Gen. has already synchronized 1<sup>st</sup> of its 2 x 600 MW units and is likely to utilize LILO arrangement for power evacuation. NTPL is scheduled to synchronize 1<sup>st</sup> of its 2x500 MW units by second week of December/2014.
6. Once power generation is commenced fully from 2 x 500 MW NTPL and 2 x 600 MW Coastal Ener. Gen. generating stations, only 2 Nos. of 400 KV feeders are available for evacuation of about 2000 MW from M/s. NTPL and M/s. Coastal Ener. Gen. Generating systems. Tripping of 400 KV NTPL - Madurai or 400 KV Coastal - Madurai feeder will adversely affect NTPL generation and evacuation systems.
7. M/s. PGCIL is scheduled to commission 400 KV system of its 400 KV/765 KV pooling station at Ettayapuram, near Tuticorin shortly with 4 Nos. of 400 KV bays. The existing 400 KV NTPL - Madurai and 400 KV Coastal Ener. Gen. – Madurai feeders will be shifted to pooling station. However, the 400 KV tie

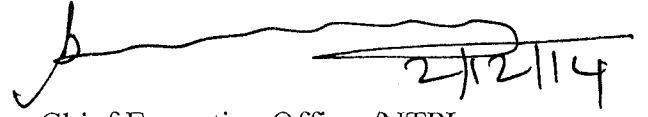
between NTPL and M/s. Coastal Ener. Gen. continues and with only 2 Nos. of 400 KV Ettayapuram PS – Madurai feeders are available, stability of power evacuation system of NTPL remains same.

8. It is requested that 400 KV transmission system for NTPL power evacuation may please be reviewed in accordance with minutes of 22<sup>nd</sup> and 31<sup>st</sup> meetings of the standing committee on power system planning of south region and for according priority for NTPL power evacuation and to ensure the reliability of NTPL evacuation system, in case of tripping of 400 KV feeders.

Thanking you.

Yours faithfully,

For NLC Tamil Nadu Power Ltd.,



Chief Executive Officer/NTPL

Copy submitted to

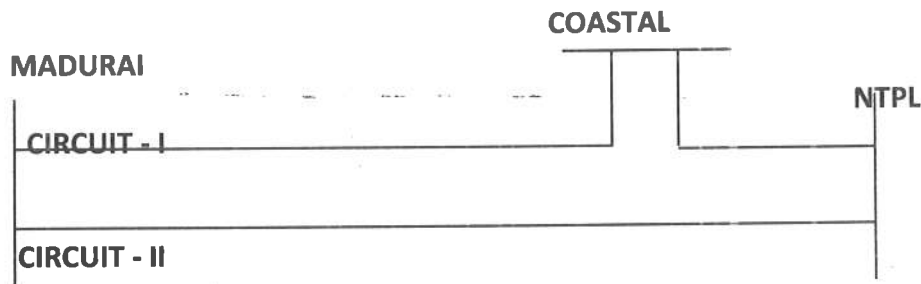
- ✓ 1. Shri. Major Singh, Member/CEA (Power System), Sewa Bhavan, Rama Krishna Puram, New Delhi – 110066.
2. Smt. Neerja Mathur, Member/CEA (Grid Operation & Distribution), Sewa Bhavan, Rama Krishna Puram, New Delhi – 110066.
3. Shri. P.R.Raghu Ram, Executive Director, SRLDC, Power System Operation Corporation Ltd., No.29, Race Course Cross Road, Bangalore – 560 009.

Dear Sir,

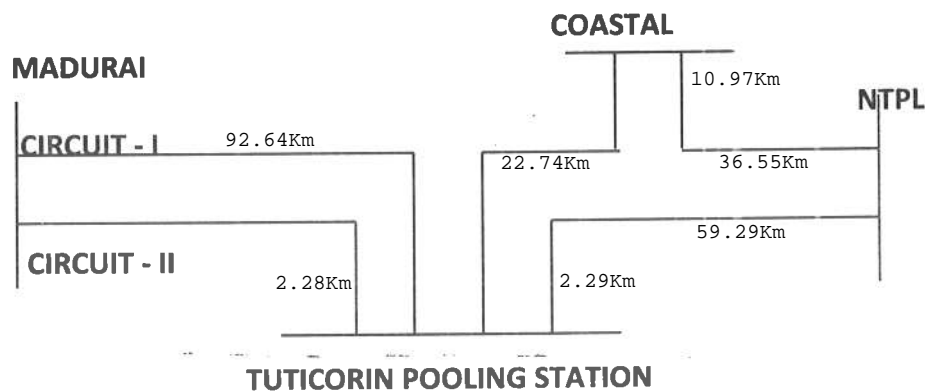
It is proposed make LILO on the 400 kV DC Quad Tuticorin JV – Madurai Line I & II to Tuticorin Pooling station by second week December'2014. The LILO portion is with AAAC Conductor.

With this the final line configuration of 400 kV DC Quad Tuticorin JV – Madurai Line I will be Madurai – Tuticorin PS and Tuticorin PS – Coastal Energen and 400 kV DC Quad Tuticorin JV – Madurai Line II will be Madurai – Tuticorin PS and Tuticorin PS – NTPL

**PRESENT ARRANGEMENT :**



**PROPOSED ARRANGEMENT :**



The Final length will be

- 1) Madurai – Tuticorin PS : 94.924 Kms (ACSR : 92.644 Kms + AAAC : 2.280 Kms)
- 2) Tuticorin PS – Coastal : 36.003 Kms (ACSR : 33.713 Kms + AAAC : 2.290 Kms)
- 3) Tuticorin PS – NTPL : 61.586 Kms (ACSR : 59.296 Kms + AAAC : 2.290 Kms)

This is for kind information and for adopting relay settings accordingly.

M SHANMUGASUNDARAM  
DGM/POWERGRID/TUTICORIN PS

**Annex – 21.0**

**Agenda Item # 21.0**

**“Change in SCCL Evacuation scheme”**

<b>1</b>	Telangana letter dated 27.1.2015	2 Pages
<b>2</b>	SCCL letter dated 9.1.2015	1 Page
<b>3</b>	SCCL schemes	2 Pages
<b>4</b>	APERC letter dated 18.7.2014	2 Pages
<b>5</b>	Telangana letter dated 24.2.2015	1 Page

TRANSMISSION CORPORATION OF TELANGANA LIMITED

O/o. The Chief Engineer,  
Construction  
TSTRANSCO, Viduyt Soudha,  
Hyderabad - 500 082.

U.O. to Chief Engineer /Planning, Power System & IT:

Sub: TSTRANSCO – Singareni TPP at Jaipur additional 600MW unit (2X600MW under construction) + 1X600MW proposed ) -Evacuation of power – Regarding.

CE/Pig, PS & IT TS TRANSCO	
Inward No	354
27 JAN 2015	
SE/Pig & PS DE/SS & LTSS DE/SP & PSCC DE/Pig, RAC, Opn&RE DE/Hot Line	DE/PMU&Comm. DE/IT&APDRP DE/ERP&EA DE/Telecom/ERP ADE/Tech.
CE/Pig, PS & IT	

- Ref: 1. M/s. SCCL Lr. No.HYD/PPD/5-61/14/378,Dt:01.10.2014.  
2. U.O.No.CE/Const./SE/PM-I/D1-A3/F.Singareni Collieries Jaipuram – Nirmal/D.No. 119 /2014, Dt:09.10.2014.  
3. M/s. SCCL Lr. No.HYD/PPD/5-61/15/23, Dt: 09.01.2015.

*DE/PS&IT*  
*25/11*


M/s. SCCL, Jaipur requested for certain clarification vide reference (1) cited with respect to the connected bay at JaipurTPP to Nirmal SS. The same was forwarded to CE/Planning, Power Systems & IT vide this office U.O. under reference (2) cited duly requesting to furnish a detailed report on the clarifications sought by SCCL at an early date. A letter was addressed to M/s. SCCL on 22.10.2014 duly clarifying the queries(copies enclosed). While furnishing the clarification it was stated that if SCCL goes for expansion of one more Unit of either 600MW or 660MW the proposal twin moose evacuation from Jaipur TPP to Nirmal line is not sufficient in case of failure of Jaipur to Gajwel DC Quad Moose line. However, M/s. SCCL was requested to confirm establishment of 3<sup>rd</sup> 600/660 MW Unit and date of Commercial Operation to conduct further system studies.

*Appr*  
*28/11/15*

Now, M/s SCCL vide their letter dt:09.01.2015 informed that they are planning to add 600MW unit to 2 x 600MW units which are under erection and requested TSTRANSCO to provide an alternate evacuation line as proposed twin DC line Jaipur – Nirmal is not sufficient in case of failure of Jaipur – Gajwel Quad DC line. (A copy of letter is herewith enclosed).

Hence, it is requested to conduct further studies and furnish a detailed report at the earliest as price bids for Nirmal 400/220kV Sub-Station already opened and came to discussion in SPC – I on 20.01.2015 and instructed to defer awarding of work. And tenders for Jaipur – Nirmal 400kV twin DC line are yet to be published due to above reason.

Encl:- As above

  
CHIEF ENGINEER  
CONSTRUCTION

To:-

Chief Engineer (Planning, Power System & IT)  
TSTRANSCO / V.S / Hyderabad.

U.O.No.CE/Const./SE/PM-I/D1-A3/F.SCCL- NEW/D.No<sup>209</sup> /2015, Dt: 27.01.2015.



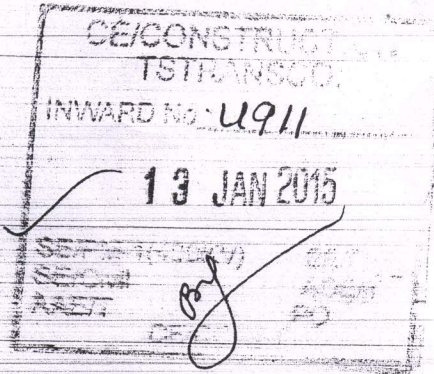
SINGARENI COLLIERIES COMPANY LIMITED  
(A Government Company)  
2 x 600 MW Singareni Thermal Power Project

YD/PPD/5-61/15/23

Dt. 09.01.2015.

TO

The Chief Engineer,  
Construction,  
TSTRANSCO, Vidyt Soudha,  
Hyderabad-500082.



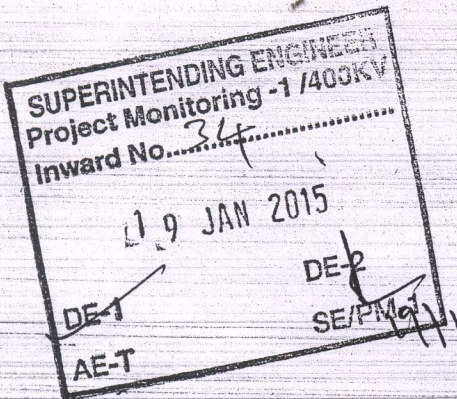
Dear Sir,

SUB:- 400KV Evacuation line from Jaipur to Nirmal- Reg.  
REF:- Letter No.CE/Const./SE/PM-I/D1-A3/F.SCCL-  
Nirmal Line/D/Mp/128/14 Dt.22.10.2014

SCCL is planning to add 600MW Unit to the 2X600MW Units which are under erection. In view of this as mentioned in your above referred letter, the proposed DC Twin Moose Evacuation line from Jaipur to Nirmal is not sufficient as an alternate evacuation line in case of failure of Jaipur to Gajwel DC Quad Moose line.

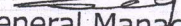
In view of this, DC Quad Moose line is required from Jaipur to Nirmal .

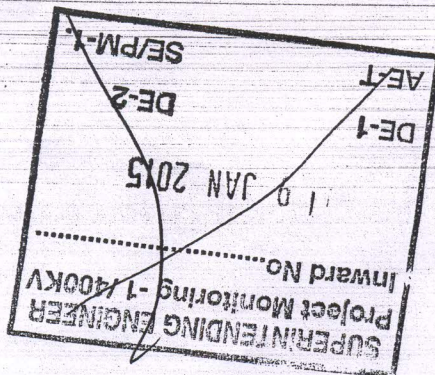
This is for your information as requested vide letter under reference.



Thanking You,

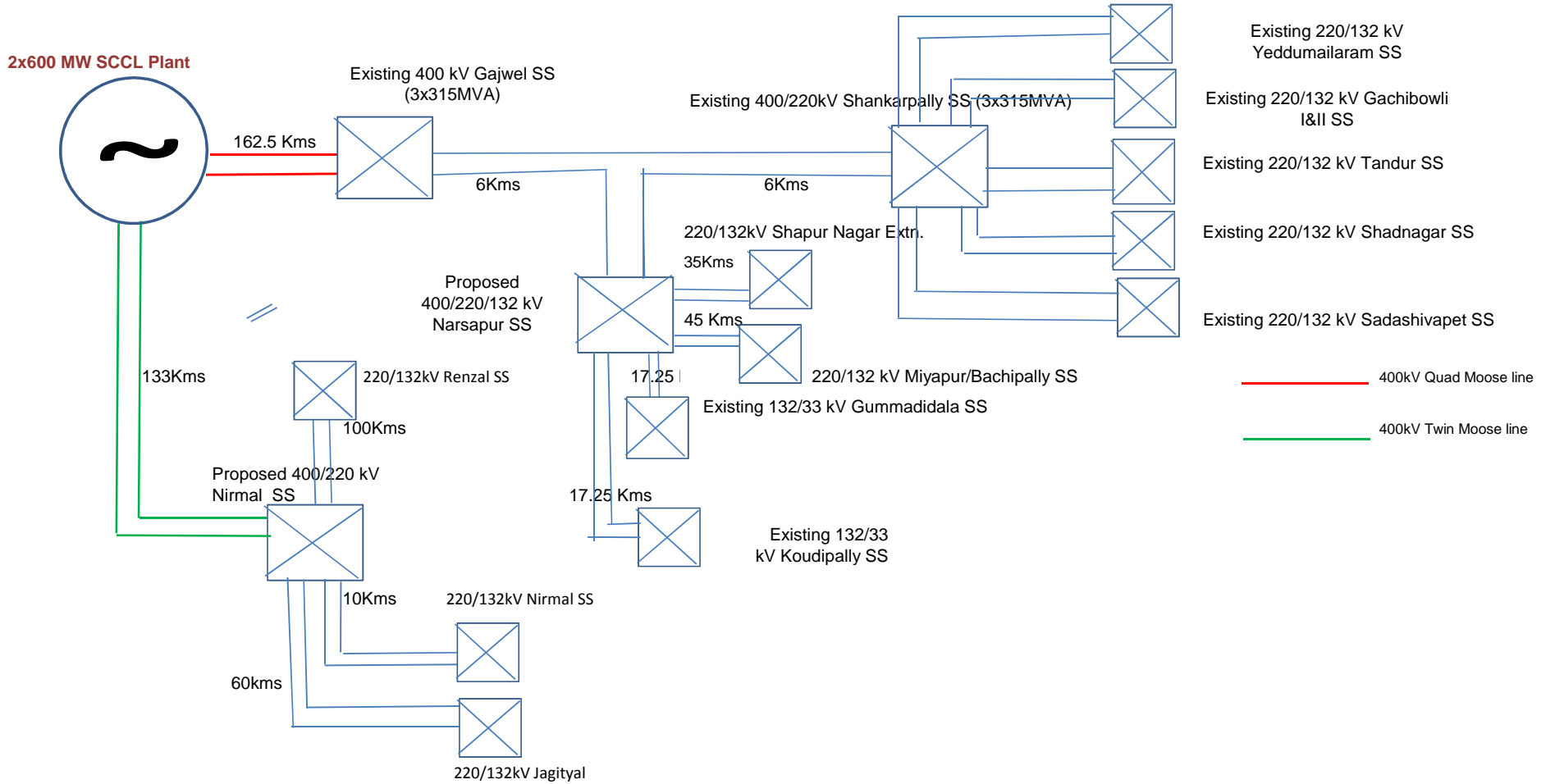
Yours faithfully,

  
General Manager,  
2X600MW Singareni TPP

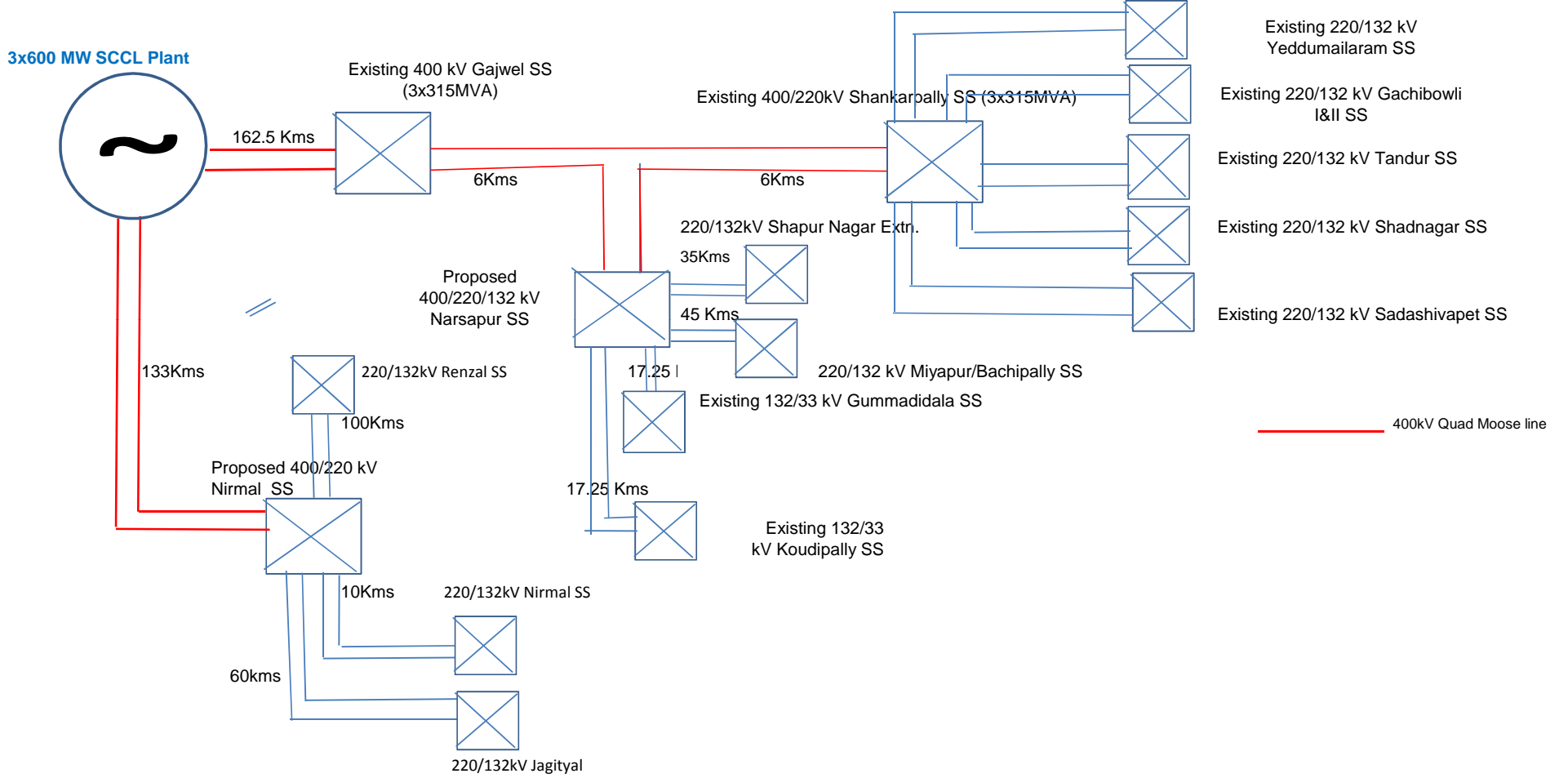


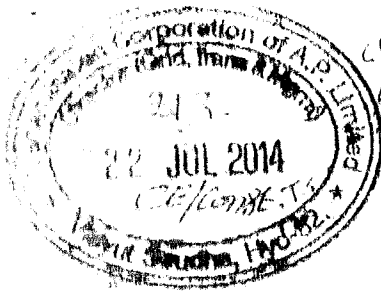


### SINGARENI THERMAL POWER PLANT (2x600MW) Evacuation Scheme (approved)



### SINGARENI THERMAL POWER PLANT (3x600MW) Evacuation Scheme (PROPOSED)





CE/Const-TS



**ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION**

(Regulatory Commission for the States of Andhra Pradesh and Telangana)  
#11-4-660, 4<sup>th</sup> & 5<sup>th</sup> Floors, Singareni Bhavan, Red Hills, Hyderabad 500 004  
Phone Nos. (040)23397626/381/399 Fax No. (040)23397378/489 website www.aperc.gov.in

From  
Secretary, APERC,  
#11-4-660, 5<sup>th</sup> Floor,  
Singareni Bhavan, Red Hills,  
Hyderabad – 500 004.

To  
✓ The Chairman & Managing Director,  
TSTRANSCO,  
Vidyut Soudha,  
Hyderabad – 500 082

Lr.No. APERC/Secy/APERC/Dir (Engg)/DD(Trans)/F:E700: 08/2012/ Dt 18-07-14

Sir,

Sub:-APERC-TSTRANSCO- proposal for balance of works in Singareni evacuation scheme- 400/220/132 kV SS at Narsapur & associated lines-approval accorded -Reg.

- Ref:-
1. Lr.No.CE/Const/400kV/SE-PM-I/DE-II/ADE/Jaipur-D.No 50/12, Dt 26-05-12.
  2. Lr.No APERC/Secy/Dir (Engg)/DD (Trans)/F: E 700-8/12 – Jaipur-Trans/Dt 18-01-13.
  3. Lr.No APERC/Secy/Dir (Engg)/DD (Trans)/F: E 700-8/12 – Jaipur-Trans/Dt 10-03-14.
  4. Lr.No.CE/Const/400kV/SE-PM-I/DE-II/ADE/Jaipur-D.No 19/14, Dt 02-05-2014
  5. Lr.No.CE/Const/400kV/ADE/Jaipur-D.No 64/14, Dt 04-07-2014

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In the reference cited (4) above, APTRANSCO after taking into consideration of the observations of APERC and their power system wing, has submitted revised investment scheme for Jaipur-Power Transmission evacuation at an estimated cost of Rs 831.90 Crs, including IDC, and requested to accord approval for balance of works in the scheme.

Earlier the Commission, keeping in view of the importance of main evacuation line (164KM, 400kV Quad Moose D/C Line from Jaipur TPP –Gajwel 400kV SS) in the scheme, has accorded Investment approval to it along with required Bay Extensions at Gajwel & Communication equipment vide CRN : APT/TS/SCCL (Jaipur) -Evacuation-400kV Quad D/C /F-INVST-42/2013.

The Chief Engineer, Construction, TS TRANSCO vide the letter under reference (5) cited, submitted that post bifurcation of the State and formation of Telangana Transco, the balance works of Jaipur Evacuation Scheme are being executed by Telangana TRANSCO.

In this connection, I am directed to communicate that the Commission after scrutiny of the proposal, hereby accords Investment approval to the balance of works in the Jaipur Evacuation scheme at a cost of Rs 313.42 Crs, as per the scope of works mentioned below.

SEARCHED INDEXED  
Project: Jaipur - Gajwel - 400kV  
Inward No. 661  
22 JUL 2014  
SEARCHED  
initial document  
24/7

CHIEF ENGINEER  
Construction: 1685  
INWARD No. ....  
22 JUL 2014  
SE/PM-I  
ADE/T  
SE/PM-II  
PD

(PTO)

Sl.No	Network element in the Scheme	Estimated Base Cost (Rs Crs)
1	Erection of 400/220/132 KV Substation at Narsapur (Medak Dist.)	139.40
2	LILO of both Circuits of Gajwel – Sanakaripalli 400 kV D/C Line to Proposed Narsapur SS- 2X6 KM	18.84
3	Erection of Shapur Nagar- Extension SS with 6 nos 220kV Bays.	6.66
4	Erection of Inter Connection to 220kV Shapur Nagar –Ext SS from Shapur Nagar SS with Single Moose D/C -0.5KM	0.363
5	Erection of 220kV Single Moose D/C Line from 400kV Narsapur SS –Shapur Nagar Ext. SS -35KM	28.53
6	Erection of shifting of 220kV Shapur Nagar – Miyapur Lines to the proposed Shapur Nagar Ext SS – 0.5KM	0.363
7	Erection of 220kV Line from 400kV Narsapur to -220kV Miyapur / Bachupalli SS -45KM (Single Moose D/C)	35.78
8	Erection of 132kV D/C Line from proposed 400 kV Narsapur SS to existing 132kV Gummadidala SS – 17.25KM	7.63
9	Erection of LILO of 132kV Narsapur – Koudipalli at proposed 400 KV Narsapur SS – 17.25KM	7.63
10	Erection of Bay-Extensions at 132kV Gummadidala Substation – 2nos.	1.23
	<b>Total Cost of Works (Basic)</b>	<b>246.42</b>
11	Provision for T&P, Contingencies, Estt & IDC	67.00
	<b>Total estimate cost (including: T&amp;P, Contingencies, Estt &amp; IDC)</b>	<b>316.42</b>

Commission Reference Number (CRN): TST/TS/SCCL (Jaipur) - Evacuation-Balance Works /F-INVST-01 /2015 has been allotted for further reference.

Commission directs TSTRANSCO to submit half early progress reports on works and expenditure at the end of September and March, during the years of implementation so as to facilitate monitoring of the progress of the project as stipulated in the Revised Investment Guidelines (February 2006) Para (1.8) through (1.13).

Yours faithfully,

  
Secretary

Copy to, The Chief Engineer/Construction-400 kV /TS TRANSCO, Vidyut Soudhha  
Hyderabad

Copy to the Director/Tariff/APERC/Hyderabad.

**TRANSMISSION CORPORATION OF TELANGANA LIMITED**

From  
The Chief Engineer/Plg, PS & IT  
TSTRANSCO,  
Vidyut Soudha,  
Hyderabad.

To  
The Chief Engineer/SP&PA,  
Central Electricity Authority,  
Sewa Bhawan, R.K.Puram,  
New Delhi - 110066.

**Lr.No.CE(Plg, Ps&IT)/Peshi/SE(Plg.&PS)/DE(SS&LTSS)/ D.No.29 /15, Dt.24/02/2015.**

Sir,

Sub:- Additional agenda regarding forthcoming 38<sup>th</sup> Standing Committee Meeting on Power System Planning in Southern Region -Singareni TPP at Jaipur additional unit(2 x 600 MW under construction) + 1x600 MW Proposed - Evacuation of Power - Reg.

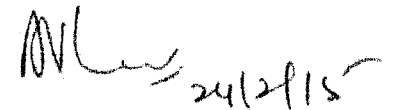
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The Singareni Collieries Company Limited (SCCL) Power Evacuation Scheme for 2 x600 MW was approved earlier with proposed 400 kV Twin Moose DC line from Jaipur to Proposed 400/220 kV Nirmal SS. The project is under completion. In the mean while, M/S SCCL proposed for additional 1 x600 MW for which scheme is prepared with Quad Moose DC Line from Jaipur to Proposed 400/220 kV Nirmal SS for evacuating total 3 x600 MW capacity generation, which was communicated by mail.

It is requested to include the above as an additional item in the agenda of 38<sup>th</sup> Standing Committee Meeting on Power System Planning in Southern Region to be held on 07-Mar-2015 at NRPC,Katwaria Sarai,New Delhi.

Thanking you

Yours faithfully



Encl: Single line diagram of the above

Chief Engineer/Plg, PS & IT  
TSTRANSCO, HYDERABAD

Copy to:

✓ The Director/SP&PA/ Central Electricity Authority/ Sewa Bhawan, R.K.Puram  
New Delhi - 110066

**Annex – 17.0- Part 2**

**Agenda Item # 17.0-Part 2**

“Evacuation of 1000 MW power from Solar Park at Gani/ Panyam in Kurnool, Andhra Pradesh from APTRANSCO”

<b>1</b>	AP letter dated 24.2.2015	1 Page
<b>2</b>	Study exhibits	6 Pages

**TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED**

From:  
The Chief Engineer ( IPC& 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(IPC&PS)/SE(PS)/DE(SS&LTSS)/F.Panyam / D.No. 34 /15 Dt. 24 -02 -15**

Sir,

**Sub:-** The 400kV Transmission Scheme for Evacuation of 1000 MW Power from Solar Park at Gani/Panyam in Kurnool district of Andhra Pradesh- Request to include as agenda item for discussion in the forthcoming Standing Committee Meeting - Reg .

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It is to inform that the following 400kV Transmission Scheme for Evacuation of 1000 MW Power from Solar Park at Gani/ Panyam in Kurnool district of Andhra Pradesh, is proposed with the following scope of works

Phase-I Works:

- a) 400/220kV Substation at Gani / Panyam - 3x500 MVA PTRs, +/- 100 MVAR STATCOM and Bus 125 MVAR Reactor
- b) 400kV QMDC Line from 400kV Kurnool to the proposed 400kV Gani / Panyam SS - 35 kM
- c) 400kV Bay Extensions at 400kV Kurnool SS – 2 Nos.
- d) 220kV SMDC line from the existing 220kV Somayajulapalli SS to the Proposed 400/220kV Gani/Panyam Substation – 10 kM
- e) 220kV Bay Extensions at 220kV Substation Somayajulapalli – 2 Nos.

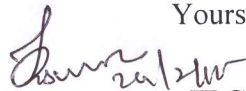
Phase-II Works:

- a) 400kV QMDC Line from 400kV Jammalamadugu to the proposed 400kV Gani /Panyam SS - 90 kM
- b) 400kV Bay Extensions at 400kV Jammalamadugu SS – 2 Nos.

The study results for the above transmission scheme is here with enclosed.

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

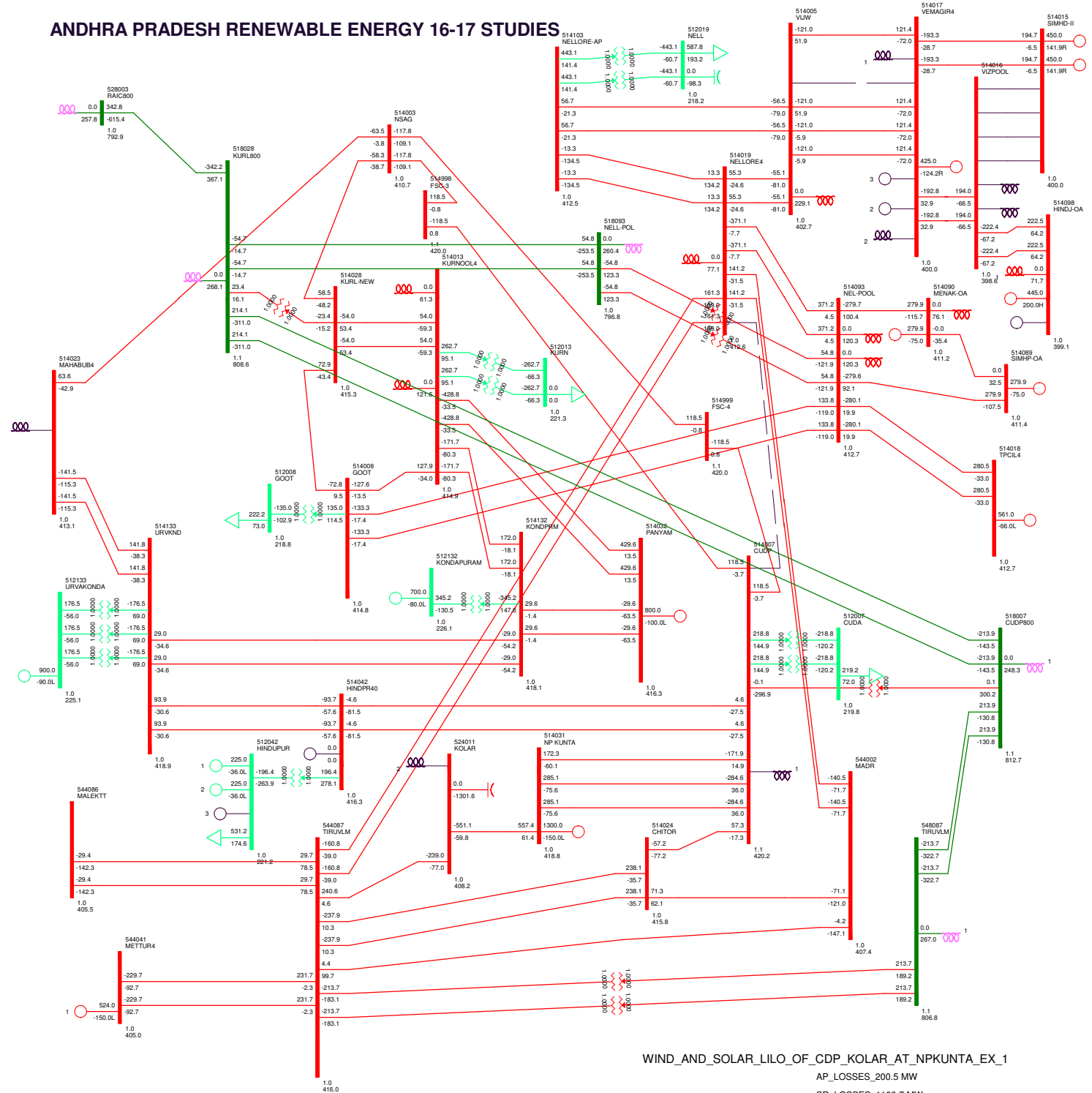
Yours faithfully

  
Chief Engineer/IPC & Power Systems

**Encl: As above**

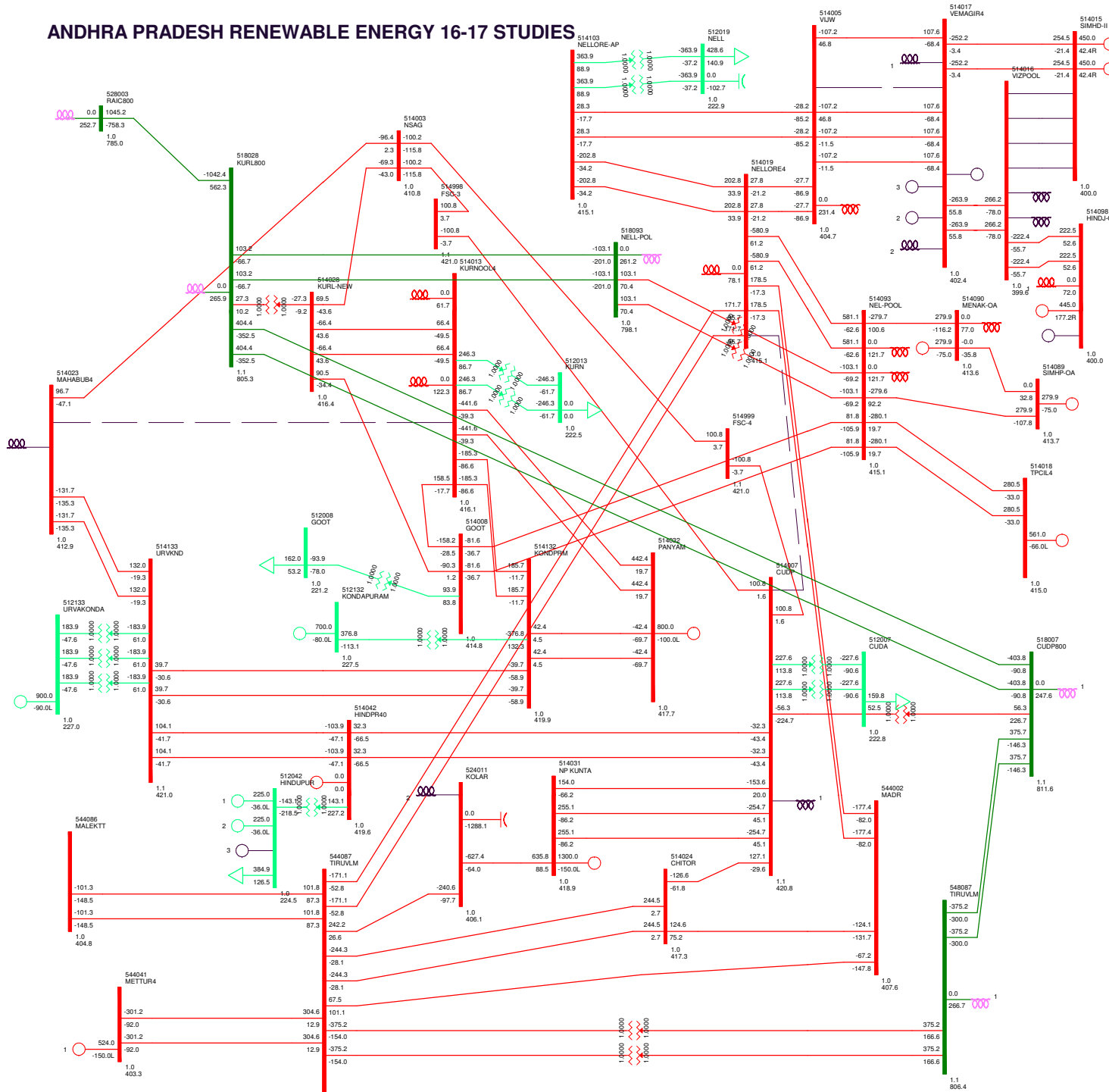
Copy to:  
Sri Pardeep Jindal, Director (SP&PA),  
Central Electricity Authority,  
Seva Bhavan, R.K.Puram,  
NEW DELHI – 110 066

# ANDHRA PRADESH RENEWABLE ENERGY 16-17 STUDIES





# ANDHRA PRADESH RENEWABLE ENERGY 16-17 STUDIES

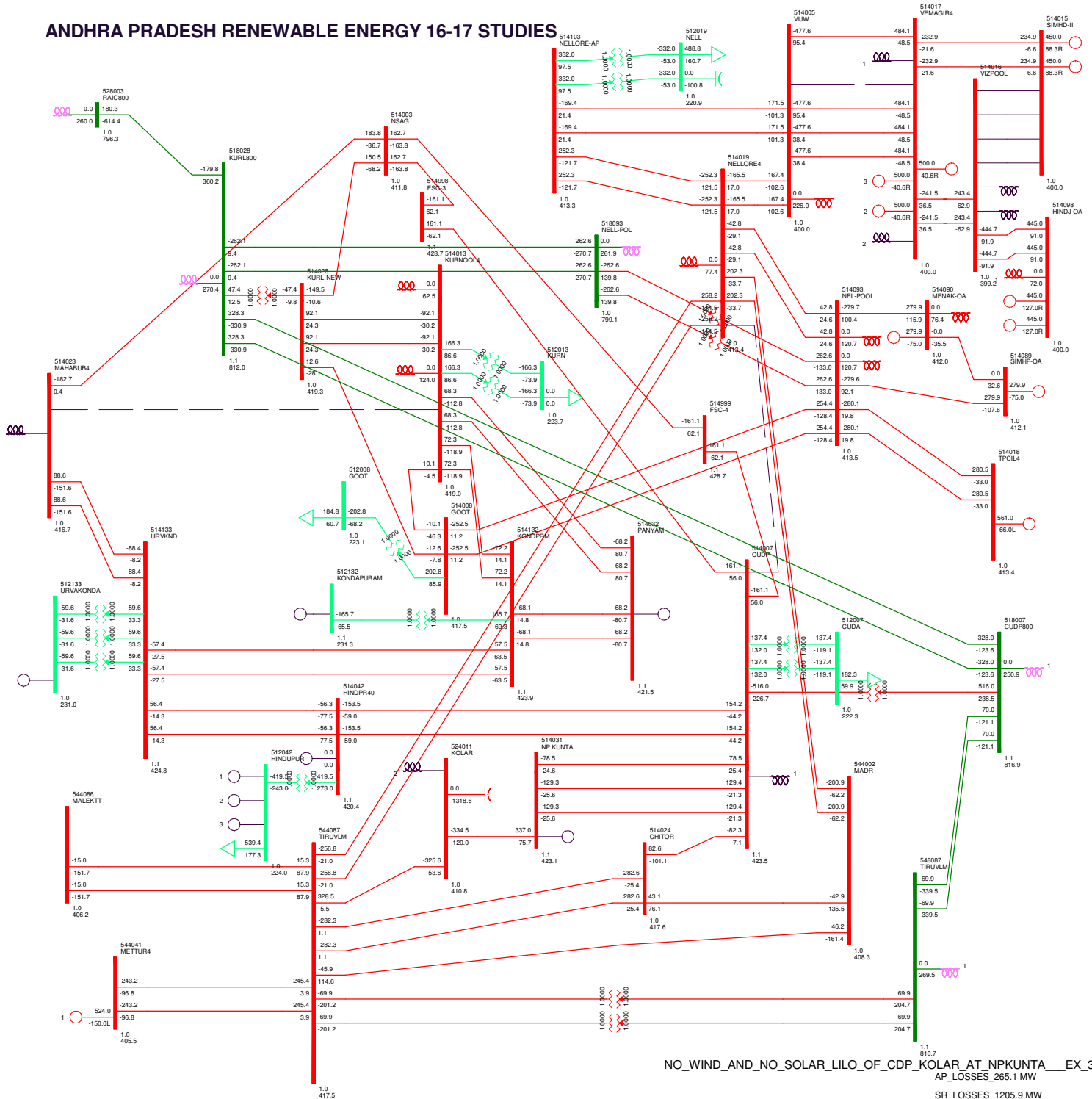


WIND\_AND\_SOLAR\_LILO\_OF\_CDP\_KOLAR\_AT\_NPKUNTA\_OFF\_PEAK\_CASE\_EX\_2

AP\_LOSSES\_153.2 MW

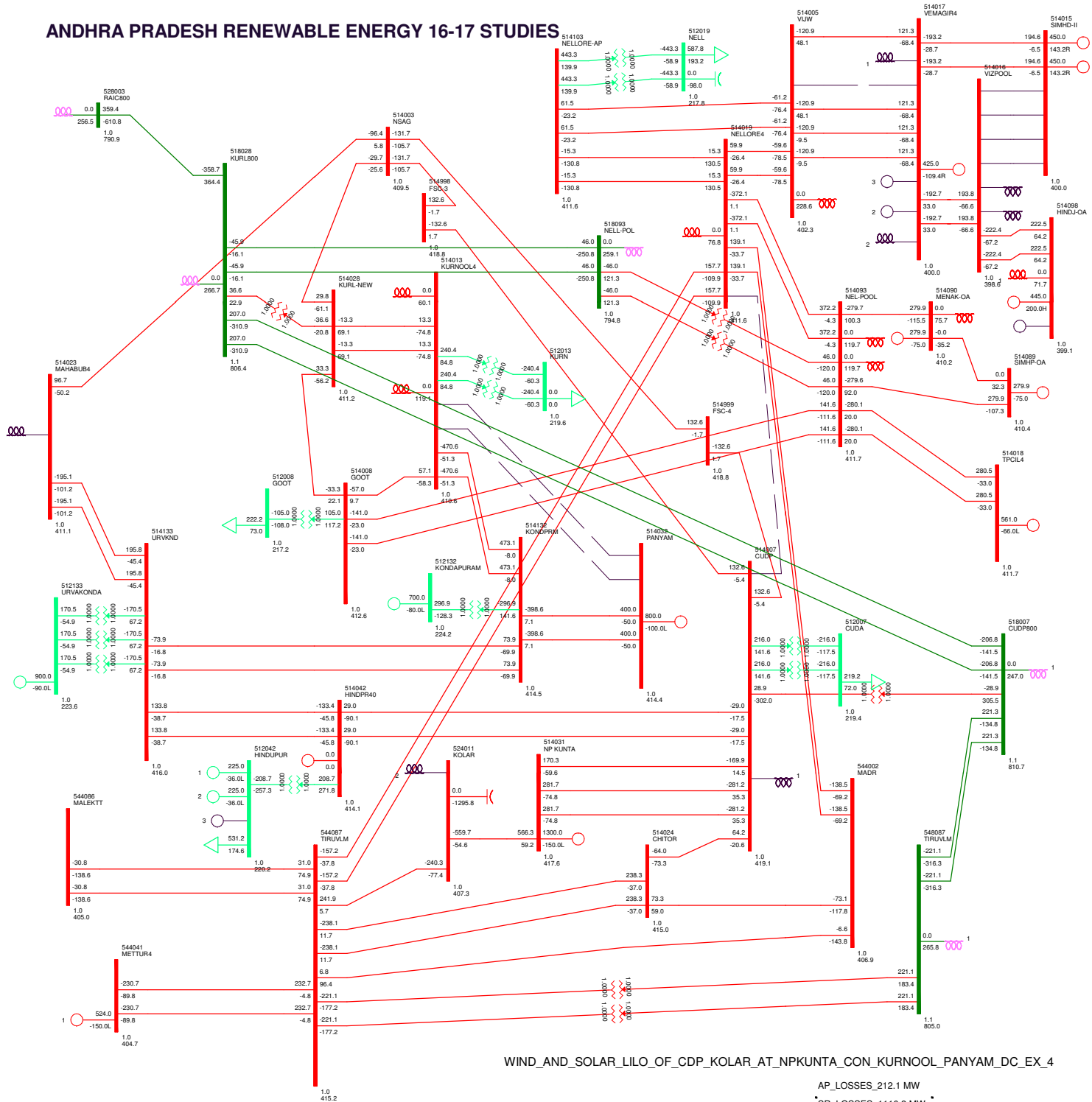
SR\_LOSSES\_1104.3 MW

ANDHRA PRADESH RENEWABLE ENERGY 16-17 STUDIES

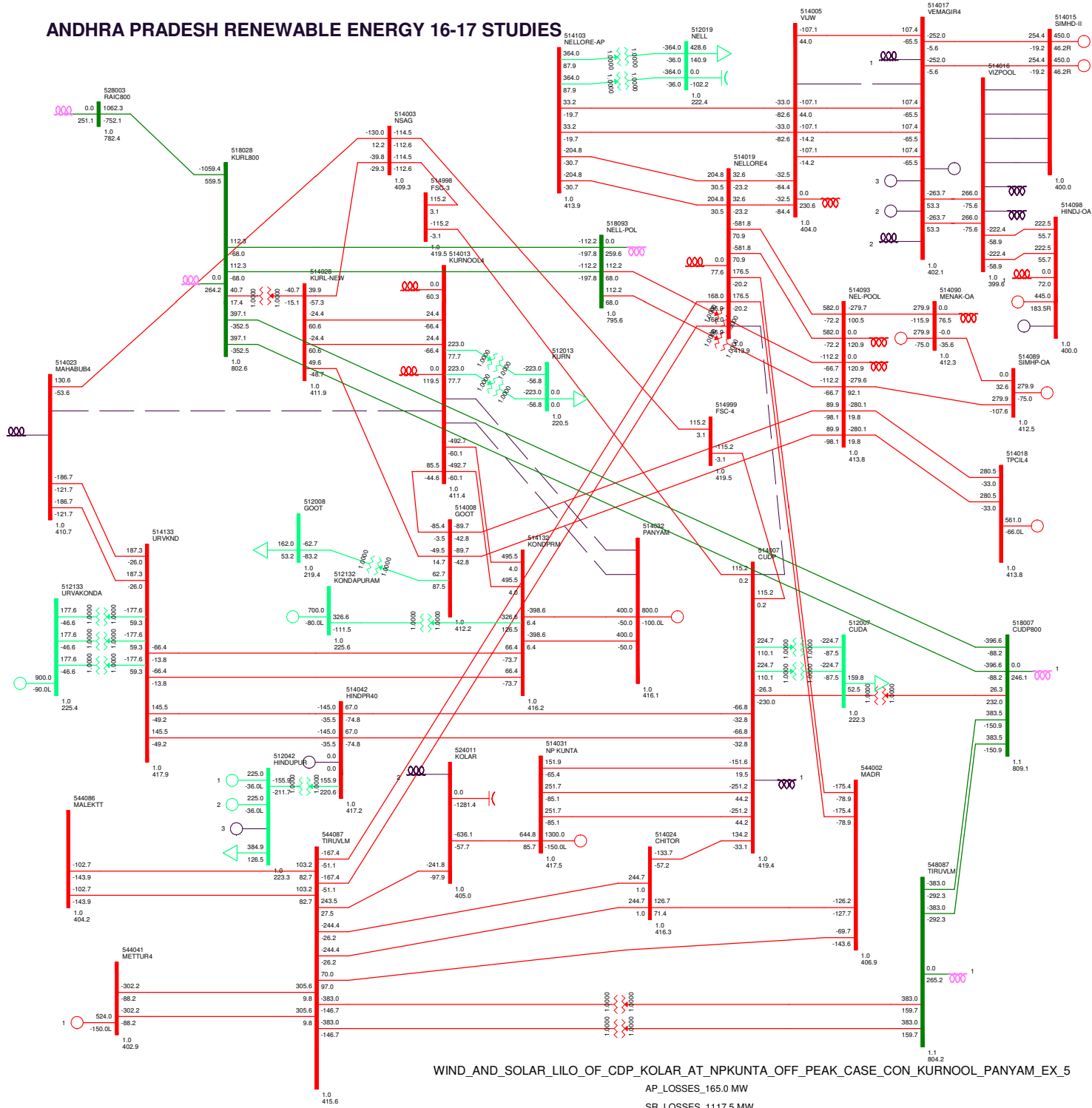


NO\_WIND\_AND\_NO\_SOLAR\_LILO\_OF\_CDP\_KOLAR\_AT\_NPKUNTA\_EX\_3  
AP\_LOSSES\_265.1 MW  
SR\_LOSSES\_1205.9 MW

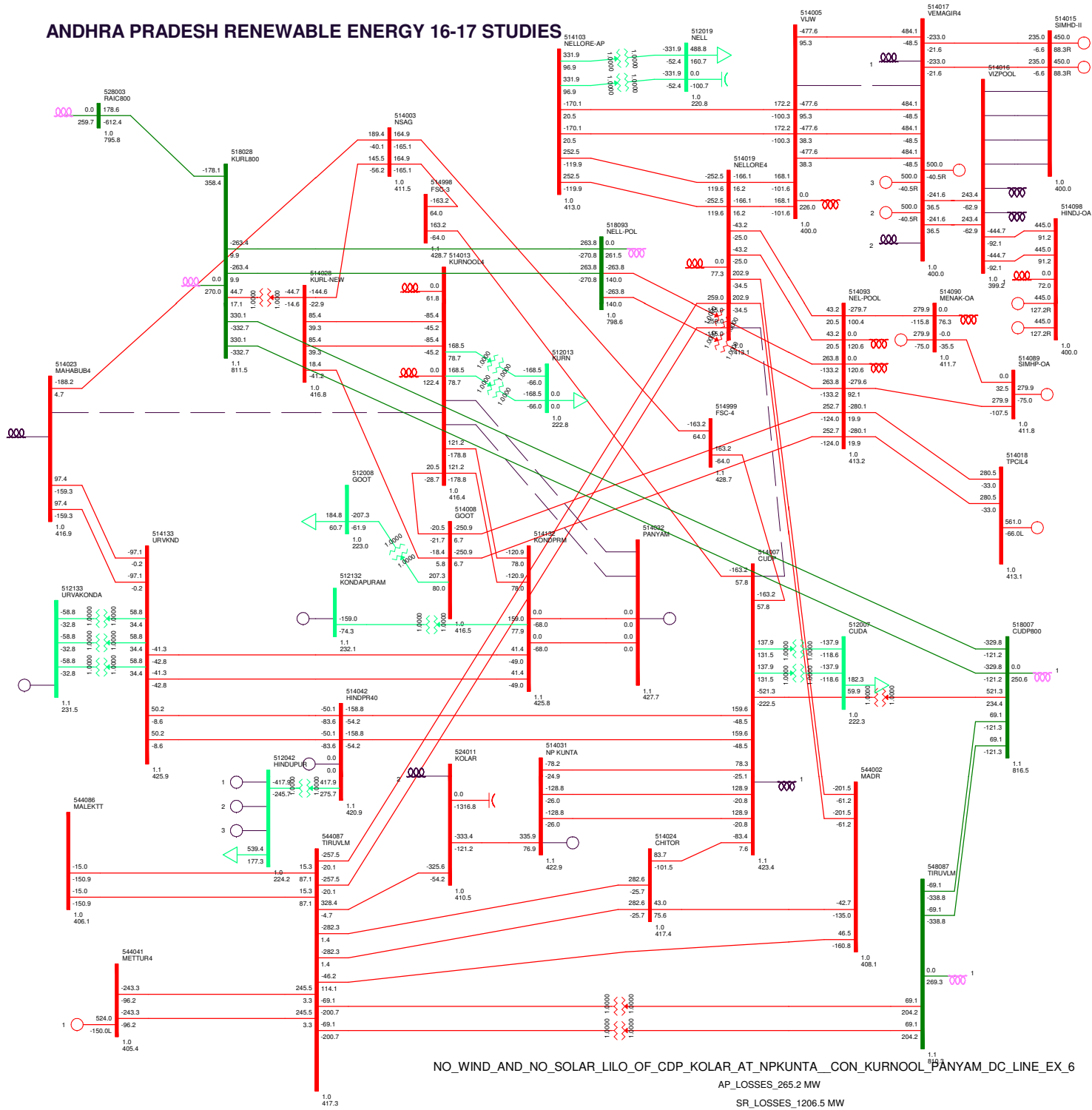
# ANDHRA PRADESH RENEWABLE ENERGY 16-17 STUDIES



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ANDHRA PRADESH RENEWABLE ENERGY 16-17 STUDIES



NO\_WIND\_AND\_NO\_SOLAR\_LILO\_OF\_CDP\_KOLAR\_AT\_NPKUNTA\_CON\_KURNOOL\_PANYAM\_DC\_LINE\_EX\_6

AP\_LOSSES\_265.2 MW

SR\_LOSSES\_1206.5 MW