



Transforming lives

एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Government of India Enterprise)

सिम्हाद्री/ Simhadri

Simhadri/GGM/2016/
Dated 26th September, 2016

To

The General Manager,
SRLDC- Bangalore**Sub : Request for permission to take Unit#4 - 500 MW of NTPC - Simhadri for planned overhaul**

Dear Sir,

Unit #4 of NTPC - Simhadri is due for major overhauling of Boiler & Auxiliaries, Turbine & Auxiliaries and other areas of the Unit. The overhauling as per plan is due w.e.f. 25.11.2016 for 35 days.

Our Unit#1 (500 MW) was due for overhauling as per plan from 21.08.2016 for 35 days. In view of the demand from Andhra Pradesh & Telangana States, we are not able to get the permission for stopping the unit for overhauling.

Therefore, it is requested that we may please be permitted to take the overhauling of the Unit#4 before Unit#1. We are ready with all the resources to take up the overhaul job of Unit#4.

It is once again requested to please allow us to stop the unit#4 for overhaul (tentatively in 1st week of October, 2016)

with regards,

Yours sincerely,

(PRAVEEN KUMAR BONDRIYA)

Group General Manager

Copy to : Sri S.R. Bhat, Member Secretary, SRPC - for kind information please.

Copy to : MD-APTRANSCO & TELANGANA TRANSCO - for kind information please.

Copy to : RED(South), NTPC -SRHQ - for kind information please.

सिम्हाद्री सुपर थर्मल पावर प्रोजेक्ट, पोस्ट: एनटीपीसी-सिम्हाद्री -531 020, जिला : विशाखपट्टणम (आं.प्र.)

Simhadri Super Thermal Power Project, Post : NTPC Simhadri - 531 020. Dist. : Visakhapatnam (A.P.)

Phone No. : 08924-243858, Fax No. : 08924-243092

पंजीकृत कार्यालय : एन टी पी सी भवन, स्कोप कॉम्प्लेक्स 7, इन्स्टिट्यूशनल एरिया, लोदी रोड, नई दिल्ली - 110003,

दूरभाष : 011-24360100 , फैक्स : 011-24361018, वेबसाईट : www.ntpc.co.in

Regd Office : NTPC Bhawan, Scope Complex 7, Institutional Area, Lodi Road, New Delhi - 110003,

Tel : 011-243601000, Fax : 011-24361018, Website : www.ntpc.co.in

एन टी पी सी लिमिटेड
NTPC Limited
(A Ltd. of India Company)

Ref.No. 0501/O&M/CEMG/ 1837

Date. 23.09.2016

Member Secretary
Southern Regional Power Committee
No-29, Race Course Cross Road
Bangalore

Sub: Overhauling of Unit-6 of NTPC, Kaniha

Dear Sir,

TSTPS Unit- 6 is under shut down from 10.08.16 for overhauling & major boiler modification works. The planned overhaul duration was from 10.08.2016 to 13.09.2016 for 35 days.

Due to major boiler modification for the first time, high quantum of work & other technical reasons the overhauling period is extended. Unit-6 is expected to be back on bar by 05.10.2016

This is for your kind information please.

Thanking you,

Yours sincerely,

P.K. Mohapatra
23/9/16
(P.K.Mohapatra)
GM (Maintenance)

Copy to:

1. AGM I/C- SRLDC, Bangalore

Handwritten notes:
मल्ल
कमल 2/2/2016
26/9
26/9

Standardised OCC Template for SLDC

Status review of Data submission

Sl.No	Data Submission	Target Date	Submitted Date
1.	RGMO data	With in 3 days after posting the incidents	
2.	MVAR data	Before 5th of every month	
3.	UV operation details	Before 5th of every month	
4.	LGBR data	Before 5th of every month	
5.	PSSE format network data	Before 5th of every month	
6.	New element	Before 3rd of every month	
7.	New RE Integration data	Before 3rd of every month	
8.	RE integration compliance certificate	Before 3rd of every month	
9.	Outage request proposals	By 3 rd of the month	
10.	BSRP Mock exercise details with report	With in 10 days completion of Mock exercise	

Power Supply Position

	MW/MU	Date	Time
Maximum Demand	10.2	31-07-16	
Minimum Demand	1.2	01-07-16	
Maximum Consumption	10.2	31-07-16	
Minimum Consumption	1.2	01-07-16	
Maximum Wind (MW)			
Maximum Wind (MU)	10.2	31-07-16	
Maximum Solar (MW)			
Maximum Solar (MU)	10.2	31-07-16	
Load shedding in MU			
RE installed Capacity in MW on the last day of the month			

Power Supply Position

Demand –Supply Gap – Reasons- Format to be furnished
- [Link](#)

ATC/TTC Computations/5 month LGBR - Table to updated
- [Link](#)

Details of Under draws/Over draws during the month

Date	State	Details of UD	Supporting Graph
			Link to the graph
			Link to the graph

Date	State	Details of OD	Supporting Graph
			Link to the graph
			Link to the graph

- Top 5 sustained Under drawal /Over drawal (For which Messages received from SRLDC)
- Actions/Measures taken by SLDCs during OD/UD instances
- Pump Mode operation of Kadamparai /Srisailam/NSR

Non Availing OCC approved shutdowns

Jul -16					
Requestor	Approved	Availed	Non Availed	Availed %	Remarks
APT	35	15	20	43%	

Details

RGMO Analysis

- State wise summary of thermal & hydro stations response for the ***incident-Format given in Excel.***
- Station wise performance.
- Unit wise in excel sheet link to PPT.

High Voltage-MVAR Analysis

- High voltage nodes-Details
- Observations with respect to MVAR absorption.
 - Units not performing as per capability
 - Units injecting when voltages are high
 - Units whose GT tap is not set at 400kV.
 - Condenser mode operation details & Observations.
 - Actions taken by SLDC to contain O/V
- Reactors progress (***Reactors list attached***)

5/7

Low Voltage-UV relays

- Under voltage relays implementation status

State	Location	Target date to implement	Status as per Last OCC	Present Status

- UV relays operations.

Date & Time	Voltage before operation	Load disconnected(MW)	Voltage after operation

Operation
Details

Low Voltages-Capacitor installation

State	Location	Target date to implement	Status as per Last OCC	Present Status

Reactive Power Planning/Capacitor Requirement

- [Update table - Link](#)

6/7

9/30/2016

SCADA Issues attended

Protection Related

AUFR & DF/DT:

STATE	Status/Settings	48.6 Hz	48.8 Hz	49 Hz	49.2 Hz	df/dt @49.3	df/dt @49.5	Total
AP	SRPC							
	Recommended (A)							
	Implemented (B)							
	% Implementation (B/A)							
	SCADA mapping(C)							
	% SCADA Mapped (C/B)							
	Average relief (D)							
	% Relief seen (D/C)							

SPS operations & Load relief details:

7/7

Patrolling Guidelines:

- Patrolling/Maintenance carried out for critical lines/SS during last month – Format

Demand Forecast Vs Actual

- % deviation between Forecasted Demand and Actual Demand during last month (with Graphs)

Status of LVRT Issues - Table to be updated- Link

PSS Tuning status of schedules finalized – Table link

ANNEXURE -

5B



भारत सरकार

Government of India

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

प्रदर्शन निष्पादन प्रबोधन प्रभाग

Operation Performance Monitoring Division

छोटी मौजिह, मेता भवन, आर के पुरम, नई दिल्ली-110066

C Floor, Sewa Bhawan, R.K. Puram, New Delhi - 110066

TSD: 9901-2008



Ref. No.- CEA/GO&D/OPM/Misc/2016/1085/0 1089

Dated: 28.09.2016

To,

Member Secretary (WRPC, NRPC, SRPC, ERPC, NERPC)

Sub: Additional Agenda Points to be discussed in OCC Meeting-Reg

Assessment and finalization of generation targets is the annual exercise of CEA which is going on for the year 2017-18. Since this exercise has been pre-poned by two months as per instructions of MoP, the demand assessment and maintenance schedule of each generating units for the year 2017-18 has to be assessed on the basis of actual demand and actual machine position of generating stations up to September 2016.

2 It is requested to arrange data from all the State Load Dispatch Centre of your region in regard to energy requirement and the demand growth of their State before coming to monthly OCC meeting to be held in October, 2016. Also requested to kindly make the agenda point in regard to State-wise energy requirement for 2016-17 and growth with respect to 2016-17 for October OCC meeting

3 Representative from OPM Division of CEA will also come and discuss the growth rate of individual state / sector in that meeting. The slot of half to one an hour may kindly be kept for this agenda point

4 The date, time and venue of the OCC meeting may kindly be informed to OPM Division at the below mentioned email please

Chandra Shekhar
Chief Engineer (OPM)

Tel: 011-26732633

011-26105026

Mob: 9650807150

Email: shekhar_cea@yahoo.co.in

Shukhar_cea@nic.in

Fax: 011-26107416

011-26732662

Email: targetopmcea@gmail.com
ceomncea@yahoo.com

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ANNEXURE -
By Fax / Post / Email 5BI

Tel No. 011- 26105026, 26732633
Fax No. 011-26107416, 26732662
Email: targetopmceca@gmail.com



भारत सरकार
Government of India
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
प्रचालन निष्पादन प्रबोधन प्रभाग
Operation Performance Division
छठी मंजिल, सेवा भवन, आर.के.पुरम, नई दिल्ली-110066
6th Floor, Sewa Bhawan, R.K. Puram, New Delhi - 110066



[ISO : 9001-2008]

No-CEA/GO&D/OPM/PPU/5/1/2016/ 1078/10/1483

Dated: 26.09.2016

To

Chief Engineer (GM), Member Secretary (NRPC/ WRPC/ SRPC/ ERPC/ NERPC)

Sub. Electricity Generation Targets for the year 2017-18.

Sir,

This is in reference to the above mentioned subject. For realistic assessment of the Generation Target the following is required from your end.

- Maintenance schedule of various power stations during the year 2017-18.
- State wise Energy Requirement in the following format:

State Name	Energy Requirement during 2016-17 (MU)	Energy Requirement during 2017-18 (MU)	% growth in Energy Requirement

2. It is requested that the requisite information may please be made available to us by 15th October, 2016 enabling us to take necessary action.

3. Also please note that above data is required for the Annual Exercise of assessment and finalization of Generation Target for the year 2017-18 and in this regard all generating utilities / power stations in your region has already been sent the data formats for submission of the required data by CEA. It is requested that a reminder letter from your office may kindly be sent to all generating utilities for early submission of target data.

Yours faithfully,

(Chandra Shekhar)
Chief Engineer (OPM)

Tel: 011-26732633

Fax: 011-26105026

Mob: 9650807150

shekhar_cea@nic.in

shekhar_cea@yahoo.co.in

कड
संज्ञित 27/9

ANNEXURE -

5C



एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
(A Government of India Enterprise)

रामगुण्डम Ramagundam

DT: 16-09-2016

No.: 09/EEMG/COMML/C1

To
The General Manager,
SRLDC, Bangalore - 560 009

Fax No. - 080-22259219/ 22252612

Dear Sir,

Sub: Sustained low scheduling below Technical minimum 70% for NTPC Ramagundam - reg

NTPC - Ramagundam is scheduled up to 60% MCR (1184 MW for Ramagundam U1to6 and 284 MW for Ramagundam U7) against 70% of Tech min (1380 MW for Ramagundam U1to6 and 330 MW for Ramagundam U7) for the first time on 16th Sep 2016 early hours onwards.

As the 4th Amendment of IEGC regulation notifying tech min limit of 55% and along with compensation guidelines covering deterioration of Station Heatrate and APC has not yet come into effect and the amendment along with the procedure being prepared by NLDC would come into effect from the date to be notified by Hon'ble Commission, the above scheduling up to 60% may be reviewed.

We have not yet technically geared up fully to operate our machines at lower than 70% loads. Also we are facing few technical problems at lower loads, like increasing TG shaft vibrations in Unit-3 at low loads, etc. (Unit-3 problem will be resolved in ensuing Unit Overhaul during Nov-Dec 2016)

In all the blocks, where the SG was less than 70% we have run our machines at lowest possible loads without endangering stability of Units (Oil support was also resorted in some of the Units). Ramagundam has always supported the Grid by following your instructions.

In view of the above, we request your kind support in ensuring technical minimum limit of 70% MCR for NTPC - Ramagundam Units)

Thanking you,

Yours faithfully,

(U. Dasgupta) 16/09/16
GM (O&M)

Copy for kind information to:

1. Member Secretary, SRPC, Bangalore
2. Cont. Room - SRLDC, Bangalore
3. ED (R)
4. GM(OS-SIIS)-CC / GM(Commercial)-CC / GM(OS)-SRHQ / AGM(Commercial)-SRHQ
5. GM (O) / GM(M) / SCE
6. OS-SIIS Control Room

Ramagundam Super Thermal Power Station, PO: Jyothinagar, Dist: Karimnagar (AP)

Phone No. 08728-272125, Fax No. 08728-272122, Cable: THERMPOWER

Regd. Office: NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110 003

लिखने में सरल समझने में आसान राजभाषा हिंदी की यही है पहचान ।

ANNEXURE-50

**NLC INDIA LIMITED**

(Formerly NEYVELI LIGNITE CORPORATION LTD)

("Navratna" - A Govt. of India Enterprise)

("नवरात्र" - भारत सरकार का उपक्रम)

OFFICE OF THE GENERAL MANAGER

सहा प्रबन्धक का कार्यालय

THERMAL POWER STATION-II, NEYVELI - 607807.

ताप विद्युत गृह - 2, नेयवेली - 607807.

Cuddalore Dist, Tamil Nadu.

कडलूर जिला, तमिल नाडु.

Tel: 04142-266157 Fax: 04142-252688 email: plgplg.rs2@nclindia.com

Website: nclindia.com

CIN: L93090TN1956GOI003507

FAX MESSAGE**Dt: 16.09.2016**

From
General Manager
Thermal Power Station II
NLC India Ltd.
Neyveli - 607807.

To
General Manager,
Southern Regional Load Dispatch Centre,
Power System Operation Corporation Ltd.,
29, Race Course Cross Road,
Bangalore-560 009.
Fax: 080-22259219

Sub: Restriction of Technical Minimum of NLC Stations to 60% of Rated capacity & Application of Congestion Charges- Reg.

Ref: 1) Warning Notice No.NLDC/2016/09/06 dated 15/09/2016.

2) Application of Congestion Charge Notice No.NLDC/2016/09/04 Dated 15/09/16.

3) Congestion Withdrawal Notice No. NLDC/2016/09/04 dated 15/09/2016.

The Technical Minimum is suddenly revised from 70% to 60% from 00.00Hrs on 16/09/2016 by SRLDC as per the instructions given by NLDC without properly appraising the situation to Control Room Shift Engineers of Thermal Power Station. The Shift Engineers communicated the difficulties in reducing the station load below 70% to SRLDC and not able to reduce the generation to match with the schedule issued by SRLDC.

NLDC also issued the Congestion messages (Warning notice, Application Notice & Withdrawal notice) for reducing the Generation in Southern Region. TPS-II is struggling hard for maintaining generation at 70% and reducing the Technical minimum to 60% and simultaneous issuing congestion notice for reducing the generation force us for performing the impossible task.

Treating the above situation as special case and appreciating the difficulties encountered by TPS-II (Stage-1 & Stage-2), congestion charges may be waived for the above period.

Assuring you of our best cooperation in maintaining the grid security and discipline.

With regards,

Yours faithfully,
For NLC India Ltd.,

[Signature]
General Manager /Thermal Power Station-II

Copy to Member Secretary

SRPC / Bangalore Fax No: 080 - 22259343

[Handwritten signature and stamp]
कल I/E
संदिग्ध 17/9

पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी, एक भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of Power Grid Corporation of India Limited, A Govt. of India Enterprise)

दक्षिण क्षेत्रीय लोड डिस्पैच केन्द्र / SOUTHERN REGIONAL LOAD DESPATCH CENTRE

29, रेस कोर्स क्रॉस रोड, बेंगलूर - 560 009. / 29, RACE COURSE CROSS ROAD, BANGALORE - 560 009.

Phone - 080 41136040 Fax - 080 22259219 Website - www.srldc.org

CIN No.U40105DL2009GOI188682

संदर्भ/Ref No. : एसआरएलडीसी/SO-I/AGC/2016/3951

दिनांक /Date: 14/09/2016

Distribution: as mentioned below

Dear Sir,

विषय / Sub : Workshop on Automatic Generation Control (AGC) & Ancillary Services Feedback sessions – Nominations – Reg.

(Indian electricity grid has been growing tremendously with addition of new generating stations including thermal, solar and wind. Presently with an installed capacity of 304761 MW, the peak all India Electricity demand has touched 158GW. With the rapid addition of Renewable Energy up to a Target of 175GW by 2022, real time operation of the grid in a secure and reliable manner is becoming a challenging task. The Automatic generation control (AGC) and utilization of reserves would help the operator in economical and stable operation of Indian Grid.

As agreed during the recently concluded SRPC Meeting, one day workshop is being organized by SRLDC and NLDC with an objective to familiarize constituents, Generating Companies and operators (SLDCs) about the technicality of AGC mechanism and the need for implementing AGC. The workshop is scheduled on 3rd October 2016 at SRLDC Auditorium. During the forenoon session experts from industry and NLDC would be addressing issues on the topic. The opportunity is also being utilized by keeping a feedback session/Suggestions in the afternoon Session for the Stakeholders on recently launched Ancillary Services for improvisations.

We request overwhelming participation from your organization for the above workshop to be held on 3rd October 2016 at SRLDC. The nominations may please be confirmed by 23-09-2016 through mails to either of the following Coordinators. Details about the program will be conveyed at a later date.

1. Shri S P Kumar – spkumar@srldc.org Mob. No – 9449599163
2. Smt Jane Jose – jane@srldc.org Mob.No - 9448284855
janejosej@gmail.com

Thanking you,

Yours faithfully,

कल I II
तु 17/11

[Addl. General Manager-SO-I]

पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी, एक भारत सरकार का उद्यम)

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POWER SYSTEM OPERATION CORPORATION LIMITED

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दक्षिण क्षेत्रीय लोड डिस्पैच केन्द्र / SOUTHERN REGIONAL LOAD DESPATCH CENTRE

29, रेस कोर्स क्रॉस रोड, बेंगलूर - 560 009. / 29, RACE COURSE CROSS ROAD, BANGALORE - 560 009.

Phone - 080 41136040 Fax - 080 22259219 Website - www.srlcdc.org

Distribution: To

1. Chief Engineer(GO),APTRANSCO, Hyderabad
2. Chief Engineer(Thermal),APGENCO, Vidyuth Soudha, Hyderabad
3. Chief Engineer(GO),TSTRANSCO, Hyderabad
4. Chief Engineer(Thermal),TSGENCO, Vidyuth Soudha, Hyderabad
5. Chief Engineer(O)TANTRANSCO, Chennai
6. Chief Engineer(Thermal),TANGEDCO, Chennai
7. Chief Engineer(SO)KSEBL, Kalamaserry
8. Chief Engineer(Ele)SLDC, KPTCL, Bangalore
9. Chief Engineer(ED),KPCL, Bangalore
10. Executive Director, Ramagundam STPS, NTPC, Karim Nagar Dist
11. Group General Manager, NTPC, Simhadri, Vishakhapatnam
12. General Manager Talcher STPP Stage - 2, Angul Dist, Orissa
13. General Manager(OS), NTPC, SRHDQ, Secunderabad
14. General Manager, NTECL, Vallur Thermal Power Project, Chennai
15. General Manager TS-1, NLC, Neyvelli
16. General Manager, TS-1 Expn, NLC, Neyvelli
17. General Manager, TS-11, NLC, Neyvelli
18. General Manager, TS-11Expn, NLC, Neyvelli
19. General Manager, NLC Tuticorin , Tamil Nadu
20. Superintending Engineer-1, Electricity Dept., Govt. of Puducherry, Puducherry
21. ASS. General Manager, JSW Energy Ltd, Bangalore
22. CEO, Thermal Powertech Corporation of India Ltd, Hyderabad
23. Vice President, Udupi Power Corporation Ltd., Bangalore
24. Sri V.P (Tech), MEPL , Hyderabad
25. GM, Simhapuri Eneregy Pvt Ltd(SEPL), Nellore (Dist)
26. MD, Coastal Energen Pvt Ltd., Chennai
27. CEP, NCCPL , NCC House, Madhapur, Hyderabad
28. GM, IL&FS, Chennai
29. GM, Hinduja National Power Corporation Limited, Hyderabad

पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी, एक भारत सरकार का उद्यम)

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Phone - 080 41136040 Fax - 080 22259219 Website - www.srlc.org

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Cc:

- | | | |
|-----|----------------------------|---|
| 1. | Dr. M.Saikumar | Chairperson, SRPC & Chairman, TNEB, Chennai |
| 2. | Shri T K Barai | Member(GO&D), CEA, New Delhi |
| 3. | <u>Shri S R Bhat</u> | <u>MS, SRPC, Bangalore</u> |
| 4. | Shri K.Vijayanand | CMD, APTRANSCO, Hyderabad |
| 5. | Shri K.Vijayanand | Managing Director, APGENCO, Hyderabad |
| 6. | Shri R.Nagaraja Swamy | Director(Grid & Tr.Mgmt), APTRANSCO, Hyderabad |
| 7. | Shri R Mutyala Raju | CMD, APEPDCL, Vishakhapatnam |
| 8. | Shri Jawaid Akhtar | Managing Director, KPTCL, Bengaluru |
| 9. | Shri G Kumar Naik | Managing Director, KPCL, Bengaluru |
| 10. | Shri T.H.M Kumar | Managing Director, PCKL, Bengaluru |
| 11. | Shri S.Sumanth | Director (Transmission), KPTCL, Bengaluru |
| 12. | Shri M.T.Manjunath | Chief Engineer (E), KPTCL, Bengaluru |
| 13. | Shri Paul Antony | CMD, KSEB Ltd., Thiruvananthapuram |
| 14. | Ms P.Vijayakumari | Director (Tr. & System Opn.), KSEB Ltd., Thiruvananthapuram |
| 15. | Shri N S pillai | Director (Finance), KSEB Ltd., Thiruvananthapuram |
| 16. | Shri N venugopal | Director (Distribution & Safety), KSEB Ltd., Thiruvananthapuram |
| 17. | Shri S.Shanmugam | Managing Director, TANTRANSCO, Chennai |
| 18. | Shri M. Pandi | Director(Distribution), TANGEDCO, Chennai |
| 19. | Ms A.Axilium Jayamary | Director(Opn), TANGEDCO, Chennai |
| 20. | Shri D.Prabhakar Rao | CMD, TSTRANSCO, Hyderabad |
| 21. | Shri D.Prabhakar Rao | CMD, TSGENCO, Hyderabad |
| 22. | Shri G.Narsing Rao | Director(HR & Grid Operation), TSTRANSCO, Hyderabad |
| 23. | Shri G. Raghuma Reddy | CMD, TSSPDCL, Hyderabad |
| 24. | Shri G.Theva Neethi Dhas | Secretary (Power), Govt of Puducherry, Puducherry |
| 25. | Shri R.P.Sasmal | Director(Operations), PGCIL, Gurgaon |
| 26. | Shri U P Pani | Director(Commercial), NTPC, New Delhi |
| 27. | Shri V. Thangapandian | Director(Power), NLC, Neyveli |
| 28. | Shri Preman Dinaraj | Director(Operations), NPCIL, Mumbai |
| 29. | Shri Thomas Joseph | CEO, NTECL, Vallur |
| 30. | Shri R. Parthasarathy | Head-Bengaluru Office, UPCL, Bengaluru |
| 31. | Shri A R Neelakanta Pillai | CEO, NTPL, Tuticorin |
| 32. | Shri A Mohan Nargund | CEO, TPICL, Nellore |
| 33. | Shri S M Zafrulla | MD, Coastal Energen Pvt Ltd, Chennai |
| 34. | S K Soonee | CEO, POSOCO |
| 35. | K V S Baba | ED, NLDC |



एनपीसीआईएल
NPCIL

न्युक्लियर पावर कॉर्पोरेशन
ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)

NUCLEAR POWER CORPORATION
OF INDIA LIMITED

(A Govt. of India Enterprise)

प्रेमान दिनराज, आई ए ए एस
निदेशक (वित्त)

PREMAN DINARAJ, IAS
Director (Finance)

नाभिकीय ऊर्जा भवन
अणुशक्तिनगर
मुंबई - 400 094

Nabhiklya Urja Bhavan
Anushaktinagar
Mumbai - 400 094

दूरभाष/Phone Off. : 2555 3619 / 2599 3331

WTC : 2218 1251

फैक्स/Fax : 2599 3332

Fax : 2218 3536

ई-मेल/E. mail : premandinraj@npcil.co.in

NPCIL:Dirfin:2016:

September 26, 2016

Sub: Installation of 2 x 125 MVAR bus reactors at 400 kV KGS Switchyard.
Ref: Your letter No.SRPC/SE/2016 dtd. 01/09/2016

Dear Shri Bhat,

As recommended in the SRPC Forum, NPCIL has carried out the feasibility studies for installation of 2 x 125 MVAR bus reactors at Kaiga 400 kV switchyard in the existing switchyard, space is available for installation of one more 125 MVAR reactor adjacent to the existing 63 MVAR bus reactor commissioned in the year 2012. Kaiga-3&4 has already sent a request to the designers for detailed engineering and preparation of the tender document for additional 125 MVAR bus reactor. This work is expected to be completed by December 2016.

Replacement of the existing 63 MVAR bus reactor with 125 MVAR reactor is planned after commissioning of the first 125 MVAR reactor. The 63 MVAR reactor is giving about 4 kV voltage relief at Kaiga and its removal for simultaneous commissioning of both the 125 MVAR reactors is not desirable.

The project of installation of the 63 MVAR bus reactor at Kaiga was executed by POWERGRID based on the MoU signed with NPCIL. In order to complete the project of supply and installation of 2 x 125 MVAR reactors at Kaiga expeditiously, NPCIL is willing to consider getting this work done on cost plus basis through POWERGRID. This may be taken up as an agenda point in the next SRPC meeting.

With regards, & Best wishes,

Yours truly,

R. Preman Dinara

(Preman Dinara)

Shri S.R.Bhat
Member Secretary
Southern Regional Power Committee
Bengaluru-560 009 Fax : 080-22259343

पंजीकृत कार्यालय : सेन्टर-1, 16 वाँ तल, विश्व व्यापार केन्द्र, कफ परेड, कुलाबा, मुंबई - 400 005

Regd. Office : Centre - 1, 16th Floor, World Trade Centre, Cuffe Parade, Colaba, Mumbai - 400 005.

Website : www.npcil.nic.in CIN : U40104 MH 1987 GOI 149458

भारत सरकार केंद्रीय विद्युत प्राधिकरण दक्षिण क्षेत्रीय विद्युत समिति बेंगलूरु - 560 009	 सत्यमेव जयते	Government of India Central Electricity Authority Southern Regional Power Committee Bengaluru - 560 009	
Web site: www.srpc.kar.nic.in	e-mail: mssrpc-ka@nic.in	Ph: 080-22287205	Fax: 080-22259343
सं/No. SRPC/SEII/2016/	6093-94	दिनांक / Date	07.09.2016

1. ED (Comm1), POWERGRID, Gurgaon
2. ED, NLDC, POSOCO, New Delhi

Sir,

As you are kindly aware, Hon'ble CERC had issued Order dated 30th June 2016 in respect of Petition No.10/SM/2014 in matter of Non-Compliance of Regulation 8 (6) Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010.

As per **para 41** of this order, Hon'ble CERC had directed that the LTA granted by CTU to ESCOMS of Karnataka and PSPCL shall be deemed to be operationalised w.e.f. 1st July 2011, when 400 kV Hassan-Mysore DC transmission line was put into commercial operation.

It is requested that necessary action to implement the above CERC order by operationalising LTA may kindly be taken. Further, the implemented LTA needs to be considered for arriving the slab rates for future quarters, under POC regime.

Thanking you,

Yours faithfully,

~~35/15~~

(ASIT SINGH)
Superintending Engineer

O/C.

$\frac{\text{Kil}}{\text{Kil}} \frac{\text{Kil}}{\text{Kil}} \frac{\text{Kil}}{\text{Kil}} \frac{\text{Kil}}{\text{Kil}}$
 $\frac{\text{Kil}}{\text{Kil}} \frac{\text{Kil}}{\text{Kil}} \frac{\text{Kil}}{\text{Kil}} \frac{\text{Kil}}{\text{Kil}}$

Mean Absolute % Error(Forecast vs Actual Demand)

	AP	TS	KAR	KER	TN
01-Sep-16	2.20	5.29	12.12	4.70	4.62
02-Sep-16	3.70	8.20	14.59	11.51	4.24
03-Sep-16	3.16	3.40	9.81	7.83	4.66
04-Sep-16	5.73	2.20	9.59	3.61	9.24
06-Sep-16	4.82	3.09	2.58	1.70	4.91
07-Sep-16	5.95	3.03	2.54	2.85	7.71
08-Sep-16	8.04	2.54	3.47	2.71	4.17
09-Sep-16	7.40	4.82	7.18	2.52	4.07
10-Sep-16	3.36	9.57	5.55	2.78	2.58
11-Sep-16	5.44	14.92	6.07	1.70	8.30
12-Sep-16	3.99	8.35	5.69	2.44	4.06
13-Sep-16	4.60	11.67	11.63	5.23	7.73
14-Sep-16	2.79	14.58	14.67	9.00	4.49
15-Sep-16	3.83	9.20	19.28	9.34	3.84
16-Sep-16	3.73	5.65	19.13	3.70	10.75
17-Sep-16	1.89	3.24	7.02	2.44	6.33
18-Sep-16	4.77	4.49	7.68	5.79	3.51
19-Sep-16	6.58	3.24	3.22	4.15	4.70
20-Sep-16	2.70	9.60	3.81	2.40	4.54
21-Sep-16	11.21	10.64	9.36	2.71	4.57
22-Sep-16	16.56	10.46	16.64	5.88	3.26
23-Sep-16	4.86	11.73	15.06	3.31	3.83
24-Sep-16	3.82	4.80	11.88	2.76	3.83
25-Sep-16	3.84	5.41	12.52	13.36	6.03



KERALA STATE ELECTRICITY BOARD Ltd.

(Incorporated under the Indian Companies Act, 1956)

Office of the Chief Engineer(Transmission System Operation)

LD Centre, H.M.T.Colony P.O., Kalamassery - 683 503.

Phone: 0484 2555965, 2555950, 9496011900 Fax: 0484 2543850

Email : cesoklsy@gmail.com, ceso@kseb.in

Website: www.kseb.in, CIN:U40100KL2011SGC027424

No. CESO/EELD1/AEG/PSS/2016-17/ 2183

26/09/16

To

The Member Secretary,
SRPC, Bangalore.

Sir,

Sub: Provision for PSS tuning in generators of capacity above 50MW- exemption
requesting - reg

Ref: Lr.No. CEG/AEE1/PSS/2016-17/1781/dtd 01.09.2016 of Chief Engineer (Generation)

Your attention is invited to the provision for PSS tuning in generators of capacity above 50MW.

As per the decision taken in the 27th SRPC Meeting held on 12th May 2015, a group comprising of Members from CTU, SRLDC, Generators & SRPC Secretariat was constituted for dealing exclusively with the PSS tuning of generators. Subsequently meetings were held on 21.08.2015, 30.10.2015 and 28.06.2016 at SRPC to discuss the PSS related issues and KSEB representatives were participated in that meetings.

As requested in the meeting dtd 21.08.2015 the status of PSS of Generating units of capacity of and above 50 MW of Kerala system were reported to SRPC and it may please be noted that PSS was in service only in 50 MW Unit #4, 5 and 6 of Kuttiyadi Generating station. In the 2nd Special Meeting on PSS Tuning of Generators held on 30.10.2015 at SRPC Bengaluru it was requested that all the generators having capacity more than 50MW and wherever PSS have not been tuned/ step response test has not been carried out shall complete the PSS Tuning/Step response Test by August 2016 and submit the reports/graphs to enable the PSS Group to analyze the same and move forward in this regard.

The present PSS status of Kerala generating units reported by the representative of KSEBL in the 3rd PSS meeting held on 28.6.2016 is furnished below.

Station Name	Status of PSS tuning	Comments/ SRT graphs submitted or not
Idukki HEP U1 to U3	In the meeting, KSEBL informed that the RMU had been tendered and awarded to M/s Alstom. Engineering works were expected to be completed in one year and another six months for the commissioning activities. PSS have been included in the tender document.	KSEBL was recommended to ensure that PSS tuning is completed by December 2017.
Idukki HEP U4 to U6	In the meeting, KSEBL informed that the existing cards were checked and PSS was enabled. Heavy oscillations were observed and PSS was disabled. As OEM assistance was not available, they would once again attempt PSS tuning through internal resources during AMC & after gaining experience of PSS at other stations.	KSEBL was recommended to ensure PSS tuning else approach Hon'ble CERC for exemption
Lower Periyar HEP U1	In the meeting, KSEBL informed that tendering was underway and pre-bid was under discussion for replacement of exciter. It would take three months after PO is placed.	KSEBL was recommended to ensure that the replacements and PSS tuning is completed before December 2016.
Lower Periyar HEP U2 & U3	In the meeting, KSEBL informed that both M/s BHEL/Andritz had been referred. M/s BHEL had come forward but the offer was not conclusive. M/s BHEL had informed that they would assess the healthiness of the cards and try for PSS tuning, if possible in the available cards.	KSEBL to complete PSS tuning else approach Hon'ble CERC for exemption
Sabarigiri HEP U1 to U6	In the meeting, KSEBL informed that the PSS would be completed by within three months for five units (except Unit- 4).	KSEBL to complete PSS tuning and submit SRT reports by 2016, October 20

Following points may please be noted regarding the provision for Power System Stabiliser (PSS)

As per CERC Indian Electricity Grid Code Regulations 5.2 (k) *all generating units shall normally have their automatic voltage regulators (AVRs) in operation. In particular, if a generating unit of over fifty (50) MW size is required to be operated without its AVR in service, the RLDC shall be immediately intimated about the reason and duration, and its permission obtained. Power System Stabilizers (PSS) in AVRs of generating units (wherever provided), shall be got properly tuned by the respective generating unit owner as per a plan prepared for the purpose by the CTU/RPC from time to time. CTU/RPC will be allowed to carry out checking of PSS and further tuning it, wherever considered necessary.*

As per Central Electricity Authority (Technical standards for connectivity to the grid) Regulation 2007, Part II - Grid Connectivity Standards applicable to the generating units, PSS is required for generators of capacity 100MW or above only, both for existing/ new units. Also for old hydro units above 100 MW, PSS need be provided only at the time of Renovation and Modernisation.

As per CEA (Technical standards for connectivity of the grid) amendment regulations 2013, part II connectivity standards applicable to the generating stations

A1. For Generating stations which are connected on or after the date on which CEA (Technical Standards for Connectivity of the Grid) Regulation, 2007 became effective.

(c) The Automatic Voltage Regulator of generator of 100 MW and above shall include Power System Stabilizer (PSS).

A2. For Generating stations which were already connected to the grid on the date on which CEA (Technical Standards for Connectivity of the Grid) Regulation, 2007 became effective

For all thermal generating unit having rated capacity of 200 MW and above and hydro units of having rated capacity of 100 MW and above, the following facilities would be provided at the time of renovation and modernization.

(2) Every generating unit of capacity having rated capacity of higher than 100 MW shall have Power System Stabilizer.

15

ie, As per the latest amendment of grid standard (2013), PSS is again required for generators of capacity 100MW or above only, both for existing/ new units. Also for old hydro units above 100 MW, PSS need be provided only at the time of Renovation and Modernisation. 2007 Regulation also stipulated the same criteria.

Considering all the above, PSS tuning is mandatory for hydro units of 100MW and above. So as far as KSEBL is concerned the PSS tuning is mandatory for Idukki Generators only and that too only after its Renovation and Modernisation. But as per the minutes of the PSS meeting, PSS shall be provided for all the generators of Lower Periyar, and Sabarigiri Generators, besides Idukki units. At present the above facility is not provided / activated in these 3 stations and incorporating this facility requires huge investment.

PSS for Idukki Generating Units:

Regarding Idukki HEP, PSS will be incorporated in the Stage I units (units 1, 2 and 3) as a part of the proposed R&M program. Letter of Acceptance for the R&M of Unit 1, 2 and 3 of Idukki HEP has been issued during August 2016 and the work is scheduled to be completed in 42 months.

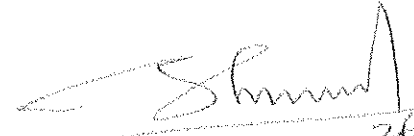
Stage II Units (units 4,5 and 6) were commissioned in 1985-86 ie, 10 years after the commissioning of Stage I units. PSS cards were in the drawn out condition from the commissioning days itself. On verification it is noted that these cards are defective and unserviceable. At present the service of the OEM is also not available. Hence implementation of PSS in Unit 4,5 and 6 of Idukki HEP will be considered during the R& M of these units.

Considering all the above, following points may please be considered regarding the PSS tuning.

1. Exempt all existing and new generating units having capacity less than 100MW from providing and tuning PSS.
2. Exempt Sabarigiri (2x 60 MW, 4x 55MW) and Lower Periyar (3x60 MW) power stations from providing PSS as those are having output less than 100MW.
3. Unit #1, 2 and 3 of Idukki HEP may be permitted to operate without PSS till the completion of R&M works. As per the present schedule R&M works of these units will be completed by December 2020.

4. Unit #4, 5 and 6 of Idukki HEP may be permitted to operate without PSS as per Central Electricity Authority (Technical standards for connectivity to the grid) (Amendment) Regulation 2013 till the completion of the R&M works. It may be noted that R&M works of Units 4,5 & 6 will be carried out only after successful completion of R&M of Units 1,2 &3.

Yours faithfully,


Chief Engineer (Trans-SO). 26/9/11

 26/9
 26/9

Copy to:-1. The Chief Engineer (Generation), Moolamattom.

2. The Executive Engineer, PMD, Moolamattom.

Copy submitted to:-

1. The Director (Distribution and Generation Electrical), KSEBL, VB, Pattom, Thiruvananthapuram.

2. The Director (Trans & SO), KSEBL, VB, Pattom, Thiruvananthapuram



L&T IDPL

ANNEXURE -

5J

1/2

Kudgi Transmission Limited

(A wholly owned subsidiary of L&T IDPL)

Address for Communication:

38, Cubbon Road, Bangalore – 560 001.

Tel: +91 80 2502 0123, Fax : +91 80 2559 6397

Ref: KTL:LTTC:2016-17:017

Date: 12.09.2016

To

The Managing Director,
BESCOM, KR Circle, Bangalore
Karnataka State.

Dear Sir,

Sub: Kudgi Transmission Limited –Notice on the readiness of 765 kV Double Circuit (Hex) Narendra (New) – Madhugiri Transmission line for Charging-reg.

Ref1: Approval for energization from CEA (Ref no.CEI/3EI/INSP/2016/ dated: 10.09.2016)

Vide this letter, we request for making the charging facilities (mentioned below) available for Element 2 of the Kudgi Project (765 kV Double Circuit (Hex) Narendra (New) - Madhugiri Transmission line) at the earliest.

Sl.No	Element	Name of the Agency	Interconnection facility
01	Element 2 -765 kV Double Circuit (Hex) Narendra (New) - Madhugiri	Power Grid Corporation of India Limited (PGCIL) -	Narendra (New) 765/400kV Pooling station - Respective Bays allotted to KTL for connecting Element 2
02			Madhugiri 765/400kV Pooling station - Respective Bays allotted to KTL for connecting Element 2

We would like to inform you that the construction works for the 765 kV Double Circuit (Hex) Narendra (New) – Madhugiri Transmission line are completed in all respect and is ready for energisation.

Further, we are glad to inform that Electrical Inspectorate, Central Electricity Authority has inspected the 765 kV Double Circuit (Hex) Narendra (New) – Madhugiri Transmission line and certified the completion of works under the scope of Kudgi Transmission Limited (KTL). Electrical Inspectorate, CEA has also issued 'Approval for Energization'. Approval copy from CEA is attached for your reference.

We would also like to bring to your notice the relevant clauses 6.2.1 & 6.2.2 of 'Transmission Service Agreement' on declaration of Element to have achieved COD:

Registered Office: Mount Poonamallee Road, Manapakkam, P.B. No. 979, Chennai - 600 089, India.

CIN : U40106TN2012GOI111122

Tel : +91 44 2252 6000 / 2252 8000 Fax : +91 44 2252 8724.

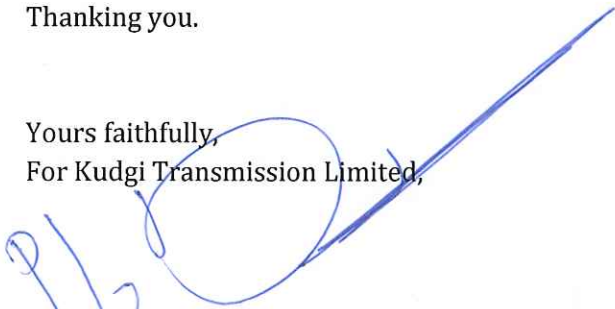
E-mail : contactus@Lntidpl.com Web : www.Lntidpl.com

- 6.2.1 *An Element of the Project shall be declared to have achieved COD seventy two (72) hours following the connection of the Element with the Interconnection Facilities or seven (7) days after the date on which it is declared by the TSP to be ready for charging but is not able to be charged for reasons not attributable to the TSP or seven (7) days after the date of deferment, if any, pursuant to Article 6.1.2. Provided that an Element shall be declared to have achieved COD only after all the Element(s), if any, which are pre-required to have achieved COD as defined in Schedule 3 of this Agreement, have been declared to have achieved their respective COD.*
- 6.2.2 *Once any Element of the Project has been declared to have achieved deemed COD as per Article 6.2.1 above, such Element of the Project shall be deemed to have Availability equal to the Target Availability till the actual charging of the Element and to this extent, shall be eligible for payment of the Monthly Transmission Charges applicable for such Element.*

We once again request you to make the charging facilities available at the earliest. In view of the above clauses, in the absence of the interconnection facilities for energisation Element 2 of the Kudgi project (765 kV Double Circuit (Hex) Narendra (New) – Madhugiri Transmission line) shall be declared to achieve deemed COD seven days after the date of this notice.

Thanking you.

Yours faithfully,
For Kudgi Transmission Limited,


(P G SURESH KUMAR)
Director

Encl: As above

Distribution:

- (i) All Long Term Transmission Customers
- (ii) MD - PCKL, Bangalore
- (iii) Member, SRPC, Bangalore
- (iv) ED, SRLDC, Bangalore
- (v) AGM-NLDC, POSOCO, New Delhi
- (vi) Chief Engineer (PSPM), CEA, New Delhi
- (vii) COO – CTU, POWERGRID, Gurgaon
- (viii) ED – Commercial, PGCIL, New Delhi
- (ix) General Manager (Technical), NTPC, Kudgi
- (x) General Manager(PP&M), NTPC, New Delhi

फैक्स/स्पीड पोस्ट /FAX/SPEEDPOST

भारत सरकार केंद्रीय विद्युत प्राधिकरण दक्षिण क्षेत्रीय विद्युत समिति बेंगलूरु - 560 009	 सत्यमेव जयते	Government of India Central Electricity Authority Southern Regional Power Committee Bengaluru - 560 009	
Web site: www.srpc.kar.nic.in	e-mail: mssrpc-ka@nic.in	Ph: 080-22287205	Fax: 080-22259343
सं/No.	SRPC/SE-II/2016/ 6356-66.	दिनांक / Date	27.09.2016

To

1. Director (Grid & Tr. Management), APTRANSCO, Hyderabad
2. Director, TSTRANSCO, Hyderabad (HR&GO)
3. Director (Tr.), KPTCL, Bengaluru,
4. Director (Tr. & Systems Opn.), KSEBL, Thiruvananthapuram
5. Director (Operations), TANTRANSCO, Chennai
6. Superintending Engineer-1, Elec. Department of Puducherry
7. Chief Engineer (Operation), TANTRANSCO, Chennai
8. Chief Engineer (LD), KPTCL, Bengaluru,
9. Chief Engineer (GO), APTRANSCO, Hyderabad
10. Chief Engineer (SO), KSEBL, Kalamassery
11. Chief Engineer (GO), TSTRANSCO, Hyderabad

Sub: Reporting of AUFR and df/dt Protection scheme performance in SR as per Clause 5.2(n) and Clause 1.5 of IEGC 2010

Sir

As you are kindly aware, SRLDC is continuously monitoring on its SCADA System the feeders connected with AUFR & df/dt protection (as available in SCADA). This is being done to ascertain the extent of protection available in case of any contingency.

In this regard, please find enclosed copy of letter dated 22.09.2016 (**Annexure-I**) received from AGM, SRLDC, Bengaluru. SRLDC has already furnished the soft copy of the observations for the period **01.09.2016 to 15.09.2016** to the utilities. The matter has been referred by SRLDC under Clause 1.5 of IEGC Regulations 2010. Reference has also been invited to CERC Order dated 19.12.2013 regarding identification of additional feeders etc., and mapping of relays on the SCADA system.

It is requested that the matter may kindly be arranged to be examined urgently and remedial action arranged so that the available relief is in line with the declared relief. We may please be informed of the action taken in this regard.

धन्यवाद /Thanking you,

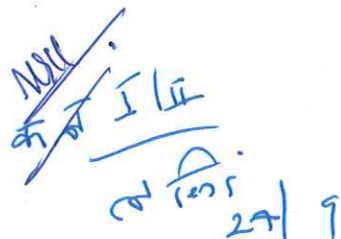
संलग्न : यथोपरि / Encl: As above

भवदीय / Yours faithfully



(असित सिंह / Asit Singh)

अधीक्षक अभियंता / Superintending Engineer




पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड की एक पूर्ण स्वामित्व वाली सहायक कंपनी)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of Power Grid Corporation of India Limited)



2/11

दक्षिण क्षेत्रीय भार प्रेक्षण केन्द्र / SOUTHERN REGIONAL LOAD DESPATCH CENTRE

No. 29, Race Course Cross Road, Bangalore – 560 009. Phone – 080 22352850. Fax – 080 22268725

CIN No. U40105DL2009GOI188682

Ref: SRLDC / OS / 2016 / F-12 / 4165

Date 22nd Sept 2016

To,

Member Secretary
SRPC, Bangalore

Sub: Reporting of AUFR and df/dt Protection scheme performance in SR as per Clause 5.2 (n) and clause 1.5 of IEGC 2010

Dear Sir,

SRLDC is continuously monitoring all the feeders connected with AUFR and df/dt protection by the respective constituents of SR w.e.f 23.09.2012 at SRLDC SCADA system to ascertain the extent of protection available to SR Power System, in case of contingency.

In continuation to our earlier letters as per Annexure, the soft copy of observation details pertaining for the period **01.09.16 to 15.09.16** is as given in the attached CD. The snapshot of SCADA picture of feeders connected to UFR and df/dt as per our records are also in the attached CD.

As per the Hon'ble CERC vide order dated 19.12.2013 , all the SR constituents have completed installation of UFR, df/dt relays at all identified locations to ensure the relief as decided by SRPC from time to time as well ensure proper functioning of relays within one month from the date of order (viz. before 19-01-2014).

The order also directs the SLDCs to map these relays on the SCADA system within three months of issuance of this order. SRPC/SRLDC shall submit a compliance report in this regard within four months of issuing this order (viz. before 19-04-2014).

Hon'ble Commission also directed SRLDC and SRPC to coordinate and monitor the progress and compliance of Commission's directions and ensure compliance of Regulations 5.2 (n) and 5.4.2 (e) of the Grid Code and report instances of non-compliance.

The matter has been referred vide clause 1.5 of IEGC 2010 for suitable action of SRPC in this regard to ensure safe and secured grid operation.

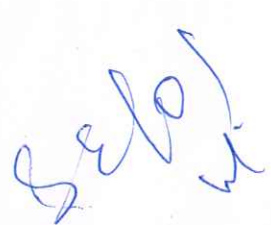
Thanking you,

Yours faithfully,


Additional General Manager

Encl:

1. CD



3/11

Copy to:

1. The Secretary, CERC, 3rd & 4th Floor, Chanderlok Building,
New Delhi-110001
2. ED, NLDC, Katwarai Salai, New Delhi-110001

Mailing List:

3. Chairman & Managing Director, APTRANSCO, Vidyut
Soudha, Khairatabad, Hyderabad-49
4. Chairman & Managing Director, TSTRANSCO, Vidyut Soudha,
Khairatabad, Hyderabad-49
5. Managing Director, KPTCL, Cauvery Bhawan, Bangalore - 9
6. Chairman, KSEB, Vaidyuthi Bhavan, Pattom, Thiruvananthapuram - 4
7. Chairman, TANTRANSCO, Chennai
8. Superintending Engineer – I, Electricity Dept, Puducherry

4/11

EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 01.09.16 TO 15.09.16*																										
AP																										
Description	UFR										df/dt						TOTAL									
	48.6	48.8		49		49.2	df/dt @49.3				df/dt @49.5															
Expected Relief as per SRPC	399	398		393		392	855				345		2782													
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	138	170		189		210	361				101		1169													
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	MAX	MIN	MAX	MIN	AVG	
1-Sep-16	206	136	175	188	128	160	268	177	222	257	154	205	103	76	91	414	302	365	1337	1116	1337	1116	1337	1116	1217	
2-Sep-16	216	101	186	210	121	180	262	154	224	283	172	223	114	76	94	501	290	407	1462	965	1462	965	1462	965	1314	
3-Sep-16	220	150	183	211	146	181	265	159	217	269	174	228	103	68	92	496	354	422	1458	1217	1458	1217	1458	1217	1322	
4-Sep-16	184	106	154	176	113	141	287	182	239	253	116	200	89	60	74	389	268	330	1234	951	1234	951	1234	951	1138	
5-Sep-16	221	140	181	215	115	177	272	184	232	289	184	238	105	72	88	451	330	400	1464	1112	1464	1112	1464	1112	1317	
6-Sep-16	220	139	182	224	127	185	293	167	232	304	181	254	105	77	93	490	338	412	1491	1138	1491	1138	1491	1138	1358	
7-Sep-16	216	134	177	226	87	182	299	177	244	332	189	267	104	80	94	535	337	442	1526	1137	1526	1137	1526	1137	1408	
8-Sep-16	218	132	178	231	130	184	306	188	255	359	220	294	110	72	93	521	298	449	1595	1115	1595	1115	1595	1115	1453	
9-Sep-16	182	131	161	169	102	142	293	202	249	276	173	227	105	70	88	429	253	336	1352	1018	1352	1018	1352	1018	1202	
10-Sep-16	205	123	171	247	136	186	274	189	243	332	174	271	97	76	90	425	292	378	1470	1102	1470	1102	1470	1102	1340	
11-Sep-16	225	113	177	184	102	164	272	200	244	294	156	237	93	74	85	386	248	343	1381	1022	1381	1022	1381	1022	1249	
12-Sep-16	214	103	176	181	111	156	267	195	239	321	155	248	92	69	82	373	222	329	1379	930	1379	930	1379	930	1230	
13-Sep-16	206	127	171	174	114	153	265	189	230	307	159	240	88	63	74	401	279	341	1354	1067	1354	1067	1354	1067	1209	
14-Sep-16	189	101	150	192	113	153	252	174	219	302	138	225	83	61	72	378	236	335	1308	937	1308	937	1308	937	1155	
15-Sep-16	170	113	143	162	113	140	256	169	216	236	134	191	88	64	74	397	253	318	1223	941	1223	941	1223	941	1083	
MAX	225			247			306			359			114			535			1595							
MIN		101			87			154			116			60			222				930					
AVG			175			171			236			240			89			389							1302	

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

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EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 01.09.16 TO 15.09.16*																						
TS*																						
Description	UFR										df/dt					TOTAL						
	48.6	48.8	49	49.2	df/dt @49.3					df/dt @49.5												
Expected Relief as per SRPC	426	424	419	417	912					367					2965							
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	257	252	360	250	500					279					1898							
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX
1-Sep-16	56	21	46	140	65	116	359	229	287	203	94	160	224	152	189	359	234	289	1313	852	1087	
2-Sep-16	110	29	67	119	45	87	395	213	300	217	84	174	246	147	195	372	179	274	1308	918	1096	
3-Sep-16	124	29	58	145	66	104	440	229	340	225	87	175	254	187	230	378	241	296	1419	909	1204	
4-Sep-16	156	139	150	104	67	87	265	172	213	167	78	125	248	132	202	229	184	205	1112	874	981	
5-Sep-16	172	70	124	135	61	106	463	222	364	236	86	192	312	176	263	369	208	278	1616	866	1328	
6-Sep-16	183	25	77	143	74	116	468	251	378	246	84	190	343	208	288	354	221	283	1569	926	1332	
7-Sep-16	142	27	65	171	63	118	499	281	383	251	70	177	360	154	298	361	189	271	1629	870	1313	
8-Sep-16	62	29	42	162	79	120	523	260	393	258	67	180	366	200	315	382	220	286	1712	887	1336	
9-Sep-16	160	108	131	137	52	95	257	157	220	210	68	151	241	181	212	238	173	206	1197	858	1014	
10-Sep-16	43	29	27	171	73	111	506	210	355	241	63	169	367	194	303	384	190	283	1617	819	1248	
11-Sep-16	116	20	53	120	40	87	385	191	271	227	67	148	340	181	283	328	202	248	1401	842	1089	
12-Sep-16	123	101	113	108	39	70	294	193	248	210	66	148	290	151	241	276	194	222	1198	876	1042	
13-Sep-16	125	34	117	117	54	90	348	184	219	181	62	134	307	165	247	289	179	212	1232	860	1020	
14-Sep-16	119	91	109	116	59	93	248	181	215	173	56	113	234	159	204	254	193	222	1091	818	957	
15-Sep-16	158	101	139	121	67	96	280	174	217	164	76	116	217	138	178	247	170	210	1096	849	956	
MAX	183			171			523			258			386			384			1712			
MIN		20			39			157			56			132			170			818		
AVG			76			104			319			167			252			265				1184

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 01.09.16 TO 15.09.16*																												
KARNATAKA*																												
Description	UFR												df/dt												TOTAL			
	48.6			48.8			49			49.2			df/dt @49.3			df/dt @49.5												
	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	
Expected Relief as per SRPC	588	588	586	586	578	578	578	576	576	576	576	576	576	576	576	576	576	576	576	576	576	576	576	576	576	576	576	
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	588	588	586	586	594	594	594	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578	578	
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	
1-Sep-16	482	323	414	376	265	321	597	349	485	492	320	398	624	469	552	389	270	334	2853	2161	2504	2853	2161	2504	2853	2161	2504	
2-Sep-16	494	337	411	383	271	322	587	349	481	489	264	393	601	433	516	415	240	341	2851	2069	2463	2851	2069	2463	2851	2069	2463	
3-Sep-16	501	326	402	401	267	338	603	375	512	474	281	396	643	467	555	411	280	368	2896	2181	2572	2896	2181	2572	2896	2181	2572	
4-Sep-16	478	478	478	360	248	307	739	739	739	563	563	563	704	704	704	426	323	382	3252	3072	3172	3252	3072	3172	3252	3072	3172	
5-Sep-16	452	337	387	402	288	341	619	376	513	571	301	435	663	454	540	438	299	381	3065	2108	2596	3065	2108	2596	3065	2108	2596	
6-Sep-16	519	318	425	434	291	351	666	386	539	629	342	473	746	532	619	446	247	355	3310	2356	2762	3310	2356	2762	3310	2356	2762	
7-Sep-16	519	332	437	435	299	365	649	384	545	656	327	483	771	550	640	424	266	356	3340	2367	2826	3340	2367	2826	3340	2367	2826	
8-Sep-16	517	285	421	434	304	363	695	440	581	597	401	497	772	579	659	456	301	384	3296	2522	2904	3296	2522	2904	3296	2522	2904	
9-Sep-16	478	478	478	352	242	303	739	739	739	563	563	563	704	704	704	457	317	409	3267	3055	3195	3267	3055	3195	3267	3055	3195	
10-Sep-16	478	346	411	461	312	390	677	385	514	637	364	509	764	569	652	473	304	410	3310	1150	2883	3310	1150	2883	3310	1150	2883	
11-Sep-16	455	342	395	437	291	367	690	418	568	587	354	491	763	469	626	467	308	395	3259	2365	2843	3259	2365	2843	3259	2365	2843	
12-Sep-16	529	326	434	448	304	375	754	442	595	639	386	515	754	517	624	454	340	402	3425	2543	2944	3425	2543	2944	3425	2543	2944	
13-Sep-16	490	325	433	407	288	347	749	463	662	583	445	535	721	554	667	461	325	403	3328	2645	3047	3328	2645	3047	3328	2645	3047	
14-Sep-16	478	478	478	391	256	316	739	739	739	563	563	563	704	704	704	454	318	384	3302	3079	3184	3302	3079	3184	3302	3079	3184	
15-Sep-16	478	478	478	366	256	307	739	739	739	563	563	563	704	704	704	420	322	372	3260	3083	3162	3260	3083	3162	3260	3083	3162	
MAX	519			461			739			656			772			473			3340			3340			3340			
MIN		285			242			349			264			433			240				1150				1150			
AVG			424			342			565			473			615			374							374			2793
* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter																												

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

EXPECTED RELIEF VS AVAILABLE AUFR + DFIDT RELIEF FOR THE PERIOD 01.09.16 TO 15.09.16*																																			
KERALA*																																			
Description	48.6													48.8													49.2		dfid/dt						TOTAL
	209			208			205			204			172			175																			
Expected Relief as per SRPC																												1173							
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	204				204			203			216			175			182									1184									
	DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG							
	1-Sep-16	207	109	153	266	146	194	269	196	223	253	147	191	147	80	112	215	124	158	215	124	158	215	124	158	1346	817	1030							
	2-Sep-16	180	104	128	240	148	174	252	185	213	223	145	169	127	83	97	197	118	140	197	118	140	197	118	140	1205	818	920							
	3-Sep-16	216	98	152	256	142	193	271	194	220	251	141	188	155	76	106	222	116	158	222	116	158	222	116	158	1359	781	1017							
	4-Sep-16	198	116	151	251	155	192	175	120	140	237	136	173	145	91	111	211	137	162	211	137	162	211	137	162	1204	771	929							
	5-Sep-16	228	110	154	273	164	214	291	195	237	268	121	174	160	92	116	213	130	156	213	130	156	213	130	156	1410	831	1050							
	6-Sep-16	228	128	168	286	160	203	273	186	225	265	155	204	163	97	121	203	123	149	203	123	149	203	123	149	1404	881	1072							
	7-Sep-16	211	125	163	260	154	196	272	200	224	259	162	201	160	99	124	249	121	157	249	121	157	249	121	157	1385	874	1066							
	8-Sep-16	211	116	157	265	157	204	264	199	222	259	154	193	155	98	117	228	132	162	228	132	162	228	132	162	1374	872	1053							
	9-Sep-16	190	120	142	257	161	188	176	110	137	234	153	175	141	95	110	211	137	156	211	137	156	211	137	156	1193	803	907							
	10-Sep-16	214	121	161	264	156	198	197	121	151	268	158	205	158	98	122	228	138	171	228	138	171	228	138	171	1319	806	1008							
	11-Sep-16	200	124	152	256	163	189	198	130	150	257	161	190	147	97	114	219	141	163	219	141	163	219	141	163	1253	830	959							
	12-Sep-16	209	91	152	260	153	196	197	64	150	253	118	189	153	80	116	222	141	168	222	141	168	222	141	168	1269	761	970							
	13-Sep-16	203	118	153	259	163	202	184	125	146	227	144	181	144	93	112	218	137	163	218	137	163	218	137	163	1219	812	957							
14-Sep-16	179	117	139	230	153	180	173	115	139	213	137	164	126	87	101	195	128	152	195	128	152	195	128	152	1105	755	875								
15-Sep-16	202	106	142	250	150	187	180	109	139	221	123	165	137	81	104	212	127	157	212	127	157	212	127	157	1188	713	894								
MAX	228			286			291			268			163			249			249			249			1410										
MIN		91			142			64			118			76			116						116			713									
AVG			153			195			195			187			114			157				114			157		1001								

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

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EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 01.09.16 TO 15.09.16*																									
TAMIL NADU*																									
Description	UFR										df/dt										TOTAL				
	48.6	48.8	49	49.2	df/dt @49.3						df/dt @49.5				TOTAL										
Expected Relief as per SRPC	756	753	744	740	559	624	4176																		
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	732	739	625	600	527	626	3849																		
	DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
	1-Sep-16	389	247	313	386	96	277	309	167	223	390	208	300	291	169	227	366	226	302	1962	1347	1642	1962	1347	1642
	2-Sep-16	393	273	330	374	172	309	324	165	230	377	187	285	260	192	225	401	224	304	2073	1476	1684	2073	1476	1684
	3-Sep-16	391	264	312	392	89	288	319	175	255	427	265	331	249	146	203	411	207	329	2162	1381	1719	2162	1381	1719
	4-Sep-16	370	282	323	374	125	296	354	192	258	506	353	421	332	227	284	407	205	334	2192	1638	1915	2192	1638	1915
	5-Sep-16	364	266	307	356	176	281	362	194	264	432	313	375	243	163	207	403	332	364	2056	1622	1798	2056	1622	1798
	6-Sep-16	405	141	337	380	99	291	319	21	243	478	115	401	284	63	231	403	112	369	2102	549	1871	2102	549	1871
	7-Sep-16	411	299	346	376	154	283	382	193	276	519	307	371	326	201	271	422	260	334	2240	1644	1881	2240	1644	1881
	8-Sep-16	428	282	356	391	118	281	387	185	280	460	309	366	336	238	284	363	221	310	2213	1431	1878	2213	1431	1878
	9-Sep-16	332	247	292	370	187	282	357	196	258	512	339	406	299	207	248	407	295	357	2170	1617	1843	2170	1617	1843
	10-Sep-16	404	316	365	383	204	302	410	216	330	446	308	378	356	254	298	410	297	352	2294	1706	2025	2294	1706	2025
	11-Sep-16	365	273	310	328	152	259	372	227	285	433	306	356	284	216	250	386	286	327	2112	1622	1787	2112	1622	1787
	12-Sep-16	393	262	329	427	98	279	386	191	275	463	315	393	339	205	281	422	247	330	2351	1543	1887	2351	1543	1887
	13-Sep-16	393	309	351	405	112	303	400	247	314	538	296	443	370	259	310	446	262	379	2419	1842	2101	2419	1842	2101
14-Sep-16	400	306	356	408	168	325	390	243	303	512	374	436	360	252	301	455	241	368	2443	1831	2089	2443	1831	2089	
15-Sep-16	409	300	344	390	77	283	387	233	298	524	343	419	369	258	309	438	302	382	2400	1791	2035	2400	1791	2035	
MAX	428			392			410			519			356			422			2294						
MIN		141			77			21			115			63			112				549				
AVG			326			286			264			363			248			335						1822	
* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter																									

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

EXPECTED RELIEF VS AVAILABLE AUFR + DFIDT RELIEF FOR THE PERIOD 01.07.16 TO 15.07.16*																						
PONDY*																						
Description	UFR												df/dt						TOTAL			
	48.6	48.8	49	49.2	df/dt @49.3								df/dt @49.5**									
Expected Relief as per SRPC	21	21	21	22	0								18						103			
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	24	25	22	27	6								12						116			
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX
1-Sep-16	27	20	23	9	9	9	23	23	23	17	14	16	12	9	11	0	0	0	88	77	82	82
2-Sep-16	26	24	24	9	9	9	23	23	23	18	14	16	12	9	10	0	0	0	88	80	83	83
3-Sep-16	26	24	24	9	9	9	23	23	23	18	14	16	12	9	11	0	0	0	92	33	84	84
4-Sep-16	26	13	22	9	9	9	23	23	23	17	17	17	12	12	12	0	0	0	88	75	84	84
5-Sep-16	26	23	24	9	9	9	23	23	23	18	8	16	11	9	10	0	0	0	85	75	82	82
6-Sep-16	26	24	24	9	9	9	23	23	23	19	8	17	12	9	11	0	0	0	92	74	85	85
7-Sep-16	26	24	24	9	9	9	23	23	23	19	8	16	13	8	11	0	0	0	88	75	84	84
8-Sep-16	27	20	23	9	9	9	23	23	23	19	8	17	13	10	11	0	0	0	91	76	84	84
9-Sep-16	25	19	22	9	9	9	23	23	23	17	17	17	12	12	12	0	0	0	88	81	84	84
10-Sep-16	27	20	23	9	9	9	23	23	23	19	15	17	13	10	11	0	0	0	89	33	83	83
11-Sep-16	26	19	23	9	9	9	23	23	23	18	8	16	12	8	11	0	0	0	87	72	81	81
12-Sep-16	28	20	23	9	9	9	23	23	23	18	8	16	12	10	11	0	0	0	89	72	82	82
13-Sep-16	28	21	23	9	9	9	23	23	23	18	8	16	12	10	11	0	0	0	88	74	82	82
14-Sep-16	27	19	22	9	9	9	23	23	23	18	8	16	12	10	11	0	0	0	87	72	82	82
15-Sep-16	26	19	22	9	9	9	23	23	23	17	8	15	12	10	11	0	0	0	87	73	81	81
MAX	27			9			23			19			13			0			92			
MIN		13			9			23			8			8			0			33		
AVG			23						9			16			11			0				83

*Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

**SLDC SCADA data for df/dt Stage II 49.5 is absent due to non-reporting of RTU of the feeders under that stage

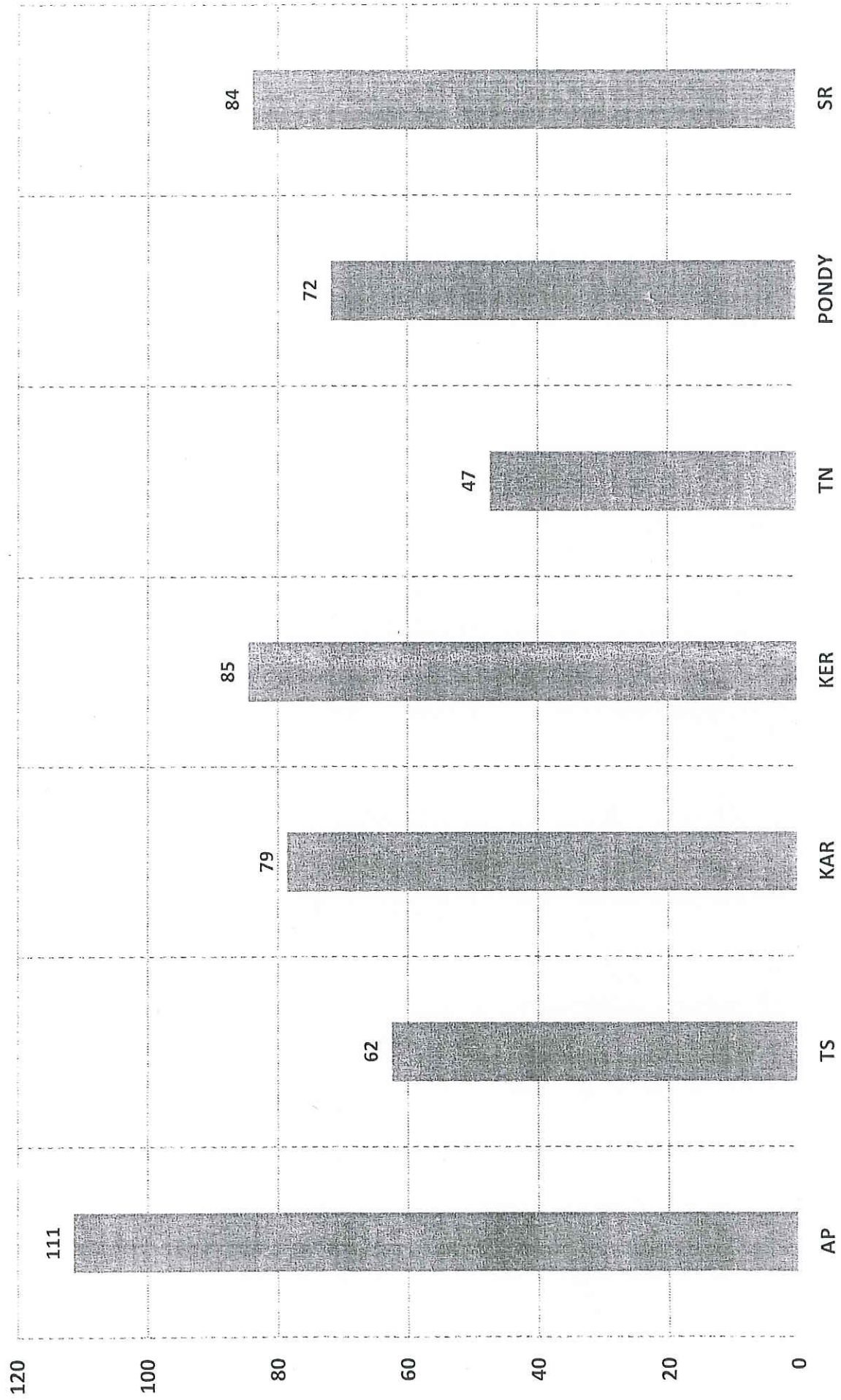
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EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 01.07.16 TO 15.07.16*																										
Description		UFR													SR											
															df/dt											
		48.6			48.8			49			49.2			df/dt @49.3			df/dt @49.5			TOTAL						
Expected Relief as per SRPC		2400			2390			2360			2350			3235			2003			14738						
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA		1662			1699			1611			1604			1800			1383			9759						
		DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG			
		1-Sep-16	1309	910	1123	1290	861	1078	1621	1279	1464	1442	1097	1270	1351	1038	1182	1559	1283	1447	8324	6909	7563			
		2-Sep-16	1333	969	1146	1221	939	1080	1654	1260	1471	1417	1136	1260	1241	1036	1136	1694	1252	1466	8312	7028	7560			
		3-Sep-16	1391	983	1131	1309	940	1114	1690	1265	1566	1465	1192	1334	1322	1071	1196	1738	1385	1573	8728	6837	7911			
		4-Sep-16	1344	1196	1278	1165	845	1032	1724	1532	1611	1656	1349	1498	1460	1301	1387	1526	1326	1413	8765	7805	8219			
		5-Sep-16	1311	1045	1176	1266	1014	1129	1763	1441	1633	1644	1215	1431	1412	1081	1224	1727	1427	1579	8695	7590	8172			
		6-Sep-16	1363	1029	1213	1317	962	1155	1778	1351	1640	1837	1284	1538	1562	1194	1363	1675	1345	1569	9155	7255	8479			
		7-Sep-16	1344	1075	1213	1346	999	1154	1841	1524	1696	1720	1242	1516	1639	1265	1439	1709	1363	1560	9103	7880	8578			
		8-Sep-16	1332	997	1177	1322	1019	1161	1896	1554	1754	1728	1292	1546	1644	1315	1479	1746	1387	1590	9203	8038	8707			
		9-Sep-16	1296	1162	1225	1170	875	1019	1712	1556	1627	1734	1393	1538	1427	1324	1374	1566	1316	1463	8883	7928	8245			
		10-Sep-16	1246	1028	1158	1344	880	1195	1782	1450	1616	1771	1250	1548	1619	1015	1475	1793	1379	1594	9189	7002	8583			
		11-Sep-16	1242	997	1109	1164	957	1074	1677	1404	1540	1588	1240	1438	1539	1177	1369	1632	1285	1477	8479	7405	8008			
		12-Sep-16	1341	1046	1227	1268	908	1085	1647	1354	1530	1713	1308	1508	1534	1170	1355	1590	1335	1450	8717	7380	8156			
		13-Sep-16	1347	1076	1248	1244	924	1105	1760	1391	1595	1708	1343	1549	1543	1273	1422	1638	1369	1499	9017	7657	8417			
14-Sep-16	1311	1188	1254	1180	966	1078	1764	1542	1639	1712	1342	1517	1452	1321	1393	1592	1318	1461	8816	7949	8341					
15-Sep-16	1395	1169	1267	1212	824	1022	1748	1545	1632	1635	1312	1469	1467	1290	1380	1583	1317	1439	8980	7747	8210					
MAX	1391			1346			1896			1837			1644			1793			9203							
MIN		910			824			1260			1097			1015			1252			6837						
AVG			1177			1108			1602			1447			1329			1521				8184				
* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter																										

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

% Total Visible Relief based on SRLDC SCADA



4/11

फैक्स/स्पीड पोस्ट /FAX/SPEEDPOST

भारत सरकार केंद्रीय विद्युत प्राधिकरण दक्षिण क्षेत्रीय विद्युत समिति बेंगलूरु - 560 009	 सत्यमेव जयते	Government of India Central Electricity Authority Southern Regional Power Committee Bengaluru - 560 009	
Web site: www.srpc.kar.nic.in	e-mail: mssrpc-ka@nic.in	Ph: 080-22287205	Fax: 080-22259343
सं/No.	SRPC/SE-II/2016/ 6387-97.	दिनांक / Date	28.09.2016

To

1. Director (Grid & Tr. Management), APTRANSCO, Hyderabad
2. Director, TSTRANSCO, Hyderabad (HR&GO)
3. Director (Tr.), KPTCL, Bengaluru,
4. Director (Tr. & Systems Opn.), KSEBL, Thiruvananthapuram
5. Director (Operations), TANTRANSCO, Chennai
6. Superintending Engineer-1, Elec. Department of Puducherry
7. Chief Engineer (Operation), TANTRANSCO, Chennai
8. Chief Engineer (LD), KPTCL, Bengaluru,
9. Chief Engineer (GO), APTRANSCO, Hyderabad
10. Chief Engineer (SO), KSEBL, Kalamassery
11. Chief Engineer (GO), TSTRANSCO, Hyderabad

Sub: Request for furnishing internal state porting of AUFR and df/dt Protection scheme performance in SR as per Clause 5.2(n) and Clause 1.5 of IEGC 2010

Sir

As you are kindly aware, SRLDC is continuously monitoring on its SCADA System the feeders connected with AUFR & df/dt protection (as available in SCADA). This is being done to ascertain the extent of protection available in case of any contingency.

In this regard, please find enclosed copy of letter dated 28.09.2016 (**Annexure-I**) received from AGM, SRLDC, Bengaluru. SRLDC has already furnished the soft copy of the observations for the period **16.07.2016 to 31.07.2016** to the utilities. The matter has been referred by SRLDC under Clause 1.5 of IEGC Regulations 2010. Reference has also been invited to CERC Order dated 19.12.2013 regarding identification of additional feeders etc., and mapping of relays on the SCADA system.

It is requested that the matter may kindly be arranged to be examined urgently and remedial action arranged so that the available relief is in line with the declared relief. We may please be informed of the action taken in this regard.

धन्यवाद /Thanking you,

संलग्न : यथोपरि / Encl: As above

भवदीय / Yours faithfully

(असित सिंह / Asit Singh)

अधीक्षक अभियंता / Superintending Engineer

मस/ई/ए
रजि. 28/9

o/c

पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड की एक पूर्ण स्वामित्व वाली सहायक कंपनी)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of Power Grid Corporation of India Limited)



दक्षिण क्षेत्रीय भार प्रेक्षण केन्द्र / SOUTHERN REGIONAL LOAD DESPATCH CENTRE

No. 29, Race Course Cross Road, Bangalore – 560 009. Phone – 080 22352850. Fax – 080 22268725

CIN No. U40105DL2009GOI188682

Ref: SRLDC / OS / 2016 / F-12 / 4238

Date 28th Sept 2016

To,

✓ Member Secretary
SRPC, Bangalore

Sub: Reporting of AUFR and df/dt Protection scheme performance in SR as per Clause 5.2 (n) and clause 1.5 of IEGC 2010

Dear Sir,

SRLDC is continuously monitoring all the feeders connected with AUFR and df/dt protection by the respective constituents of SR w.e.f 23.09.2012 at SRLDC SCADA system to ascertain the extent of protection available to SR Power System, in case of contingency.

In continuation to our earlier letters as per Annexure, the soft copy of observation details pertaining for the period **16.07.16 to 31.07.16** is as given in the attached CD. The snapshot of SCADA picture of feeders connected to UFR and df/dt as per our records are also in the attached CD.

As per the Hon'ble CERC vide order dated 19.12.2013 , all the SR constituents have completed installation of UFR, df/dt relays at all identified locations to ensure the relief as decided by SRPC from time to time as well ensure proper functioning of relays within one month from the date of order (viz. before 19-01-2014).

The order also directs the SLDCs to map these relays on the SCADA system within three months of issuance of this order. SRPC/SRLDC shall submit a compliance report in this regard within four months of issuing this order (viz. before 19-04-2014).

Hon'ble Commission also directed SRLDC and SRPC to coordinate and monitor the progress and compliance of Commission's directions and ensure compliance of Regulations 5.2 (n) and 5.4.2 (e) of the Grid Code and report instances of non-compliance.

The matter has been referred vide clause 1.5 of IEGC 2010 for suitable action of SRPC in this regard to ensure safe and secured grid operation.

Thanking you,

Yours faithfully,

Additional General Manager

Encl:

1. CD

कन्सिडर
28/9

Copy to:

1. The Secretary, CERC, 3rd & 4th Floor, Chanderlok Building,
New Delhi-110001
2. ED, NLDC, Katwarai Salai, New Delhi-110001

Mailing List:

3. Chairman & Managing Director, APTRANSCO, Vidyut
Soudha, Khairatabad, Hyderabad-49
4. Chairman & Managing Director, TSTRANSCO, Vidyut Soudha,
Khairatabad, Hyderabad-49
5. Managing Director, KPTCL, Cauvery Bhawan, Bangalore - 9
6. Chairman, KSEB, Vaidyuthi Bhavan, Pattom, Thiruvananthapuram - 4
7. Chairman, TANTRANSCO, Chennai
8. Superintending Engineer - I, Electricity Dept, Puducherry

EXPECTED RELIEF VS AVAILABLE AUFR + DFIDT RELIEF FOR THE PERIOD 16.07.16 TO 31.07.16*																											
AP																											
Description	UFR												df/dt												TOTAL		
	48.6	48.8	49	49.2	df/dt @49.3						df/dt @49.5						TOTAL										
Expected Relief as per SRPC	399	398	393	392	855						345						2782										
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	138	170	189	210	361						101						1169										
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
16-Jul-16	199	115	164	193	101	152	290	200	256	287	138	205	566	360	486	131	89	108	1510	1031	1371	1510	1031	1371	1510	1031	1371
17-Jul-16	188	107	158	178	87	151	263	186	234	291	128	205	499	350	438	151	86	112	1422	996	1298	1422	996	1298	1422	996	1298
18-Jul-16	188	100	155	163	75	138	249	166	219	286	102	201	474	346	420	153	77	112	1394	905	1245	1394	905	1245	1394	905	1245
19-Jul-16	186	110	159	203	102	154	287	179	238	221	114	161	555	352	451	117	69	101	1491	962	1264	1491	962	1264	1491	962	1264
20-Jul-16	183	100	145	158	83	134	243	144	202	195	55	152	485	262	408	112	84	98	1283	833	1139	1283	833	1139	1283	833	1139
21-Jul-16	183	101	147	158	88	122	278	176	232	250	126	183	499	333	424	118	76	100	1346	965	1207	1346	965	1207	1346	965	1207
22-Jul-16	180	108	151	147	94	128	273	189	235	249	118	186	467	368	410	125	91	104	1313	1026	1214	1313	1026	1214	1313	1026	1214
23-Jul-16	185	101	153	155	100	127	267	190	234	246	136	186	98	60	82	456	333	413	1300	955	1195	1300	955	1195	1300	955	1195
24-Jul-16	168	97	143	140	84	121	265	190	229	231	133	182	102	73	86	465	290	392	1255	891	1154	1255	891	1154	1255	891	1154
25-Jul-16	167	88	136	136	84	105	274	180	228	250	123	187	110	70	88	487	339	404	1296	918	1149	1296	918	1149	1296	918	1149
26-Jul-16	154	94	129	141	72	112	278	177	232	219	132	174	113	75	93	476	324	406	1282	901	1146	1282	901	1146	1282	901	1146
27-Jul-16	164	95	127	138	82	110	262	167	222	222	123	172	113	72	90	465	330	400	1238	912	1120	1238	912	1120	1238	912	1120
28-Jul-16	140	84	111	126	77	103	276	160	223	222	113	173	128	75	96	520	348	407	1300	903	1113	1300	903	1113	1300	903	1113
29-Jul-16	147	103	121	129	83	102	277	182	233	231	103	175	106	76	92	480	348	408	1238	952	1130	1238	952	1130	1238	952	1130
30-Jul-16	147	94	119	117	44	97	274	152	229	226	120	171	124	72	90	445	261	393	1211	818	1099	1211	818	1099	1211	818	1099
31-Jul-16	141	84	113	123	65	91	269	186	231	212	110	162	112	70	87	448	306	353	1175	894	1037	1175	894	1037	1175	894	1037
MAX	188			203			287			291			555			520			1491			1491			1491		
MIN		84			44			144			55			60			69				818				818		
AVG			138			120			228			178			224			280			1167				1167		
* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter																											

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

5/12

EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 16.07.16 TO 31.07.16*																								
TS*																								
Description	UFR										df/dt										TOTAL			
	48.6	48.8	49	49.2	df/dt @49.3					df/dt @49.5					TOTAL									
Expected Relief as per SRPC	426	424	419	417	912					367					2965									
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	257	252	360	250	500					279					1898									
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
16-Jul-16	111	39	79	165	80	131	426	206	301	190	60	140	290	161	221	190	133	162	1330	758	1034			
17-Jul-16	125	43	85	165	86	128	401	186	294	218	63	146	308	162	225	186	138	167	1322	720	1045			
18-Jul-16	117	46	85	164	92	128	419	194	306	210	71	145	308	171	234	196	140	174	1360	754	1072			
19-Jul-16	86	26	63	153	53	111	387	177	258	174	52	119	308	164	215	165	100	132	1239	679	899			
20-Jul-16	88	40	71	142	71	114	313	176	241	189	68	132	262	166	210	179	121	155	1140	690	923			
21-Jul-16	145	53	91	185	93	135	400	227	307	216	64	148	311	207	255	285	148	191	1385	848	1127			
22-Jul-16	112	54	78	156	90	126	394	231	302	214	69	148	303	174	234	212	138	172	1298	852	1059			
23-Jul-16	122	68	94	152	97	122	401	249	310	223	66	153	234	116	183	315	188	251	1340	946	1113			
24-Jul-16	120	60	96	152	93	125	449	240	328	215	65	154	226	168	201	331	194	252	1401	910	1156			
25-Jul-16	146	40	88	166	86	126	440	224	331	217	63	144	235	156	206	341	139	240	1461	717	1135			
26-Jul-16	98	30	69	160	80	119	421	205	312	192	50	128	233	165	198	283	166	215	1311	754	1042			
27-Jul-16	90	32	66	167	93	128	380	212	290	196	54	129	206	112	172	278	165	222	1240	779	1007			
28-Jul-16	101	48	82	164	92	127	409	202	299	188	69	141	209	152	177	308	183	239	1305	817	1065			
29-Jul-16	121	59	91	150	81	117	427	195	307	204	70	145	223	139	192	305	172	232	1371	790	1085			
30-Jul-16	123	55	96	148	86	121	476	193	307	213	57	146	219	159	191	360	180	237	1497	794	1099			
31-Jul-16	124	57	91	151	83	125	414	187	306	206	60	141	199	117	175	305	163	234	1339	709	1073			
MAX	146			185			476			223			311			360			1497					
MIN		26			53			176			50			112			100			679				
AVG			83			124			300			141			205			208			1060			

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 16.07.16 TO 31.07.16*																									
KARNATAKA*																									
Description	UFR										df/dt										TOTAL				
	48.6	48.8	49	49.2	df/dt @49.3						df/dt @49.5				TOTAL										
Expected Relief as per SRPC	588	586	578	576	737	474	3539																		
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	588	586	594	578	737	474	3557																		
	DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
	16-Jul-16	450	298	371	396	239	312	579	340	473	446	277	366	664	448	554	356	237	313	2741	1963	2391			
	17-Jul-16	505	298	392	365	219	286	567	335	464	392	256	334	569	406	495	351	261	313	2664	1935	2284			
	18-Jul-16	495	288	402	357	209	290	582	316	463	418	271	342	616	415	513	335	221	279	2687	1922	2290			
	19-Jul-16	408	238	324	385	201	278	489	276	369	370	227	308	661	453	537	340	227	299	2585	1708	2114			
	20-Jul-16	427	169	356	331	196	267	478	229	339	334	231	282	583	396	495	298	219	270	2355	1473	2009			
	21-Jul-16	442	255	363	335	195	272	518	309	405	402	266	329	571	400	483	287	185	238	2398	1678	2090			
	22-Jul-16	453	222	375	369	186	278	562	217	403	401	201	337	542	281	467	317	166	246	2586	1273	2106			
	23-Jul-16	430	234	334	344	190	269	433	195	307	322	199	257	591	419	495	297	193	239	2237	1935	2087			
	24-Jul-16	400	241	308	328	202	260	445	210	325	362	201	258	532	380	461	296	211	248	2172	1926	2043			
	25-Jul-16	355	221	286	354	211	283	476	294	376	367	219	297	590	357	487	303	210	264	2255	1894	2092			
	26-Jul-16	432	236	348	337	132	263	518	245	370	376	266	327	575	173	454	278	213	250	2225	1628	2040			
27-Jul-16	410	262	343	334	192	274	447	240	346	372	273	315	516	315	423	289	222	261	2137	1832	2019				
28-Jul-16	410	242	326	329	191	263	482	195	344	372	213	295	499	346	425	303	213	261	2136	1865	2010				
29-Jul-16	427	261	356	318	170	241	478	229	339	334	231	282	496	297	402	298	219	270	2132	1793	1965				
30-Jul-16	418	255	339	287	169	223	497	197	343	321	226	276	451	287	368	331	231	275	2052	1791	1914				
31-Jul-16	383	233	300	317	154	229	475	269	363	320	206	267	458	307	370	335	250	289	2096	1786	1922				
MAX	505			396			582			446			664			356			2741						
MIN		169			132			195			199			173			166				1273				
AVG			351			278			390			312			495			269					2141		

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 16.07.16 TO 31.07.16*																																																							
KERALA*																																																							
Description	48.6												48.8												49												49.2												df/dt						TOTAL
	209				208				205				204				df/dt @49.3				df/dt @49.5																																		
Expected Relief as per SRPC	204				204				203				216				175				182				175				1173																										
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	204				204				203				216				175				182				1184																														
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG																												
16-Jul-16	218	125	166	264	145	193	236	176	196	254	140	181	236	176	196	254	140	181	236	176	196	254	140	181	236	176	196																												
17-Jul-16	202	124	149	253	149	179	234	167	190	241	146	176	234	167	190	241	146	176	234	167	190	241	146	176	234	167	190																												
18-Jul-16	217	124	165	266	150	196	257	158	216	207	134	118	257	158	216	207	134	118	257	158	216	207	134	118	257	158	216																												
19-Jul-16	218	107	144	242	133	173	234	155	190	238	135	178	234	155	190	238	135	178	234	155	190	238	135	178	234	155	190																												
20-Jul-16	218	125	164	265	142	191	246	155	192	240	135	179	246	155	192	240	135	179	246	155	192	240	135	179	246	155	192																												
21-Jul-16	230	117	156	271	149	197	258	182	212	264	153	193	258	182	212	264	153	193	258	182	212	264	153	193	258	182	212																												
22-Jul-16	228	131	165	284	92	201	251	185	213	262	161	196	251	185	213	262	161	196	251	185	213	262	161	196	251	185	213																												
23-Jul-16	231	115	166	247	87	185	250	178	204	253	153	191	250	178	204	253	153	191	250	178	204	253	153	191	250	178	204																												
24-Jul-16	203	113	146	240	132	169	248	185	205	237	145	170	248	185	205	237	145	170	248	185	205	237	145	170	248	185	205																												
25-Jul-16	195	117	149	265	137	176	259	191	213	281	146	211	259	191	213	281	146	211	259	191	213	281	146	211	259	191	213																												
26-Jul-16	196	103	149	270	149	199	261	191	217	277	170	217	261	191	217	277	170	217	261	191	217	277	170	217	261	191	217																												
27-Jul-16	204	108	148	243	128	178	236	194	212	269	111	201	236	194	212	269	111	201	236	194	212	269	111	201	236	194	212																												
28-Jul-16	195	101	139	244	135	176	234	203	215	280	155	207	234	203	215	280	155	207	234	203	215	280	155	207	234	203	215																												
29-Jul-16	199	112	145	229	129	167	236	204	220	277	166	208	236	204	220	277	166	208	236	204	220	277	166	208	236	204	220																												
30-Jul-16	205	104	145	228	132	161	272	195	221	273	166	211	272	195	221	273	166	211	272	195	221	273	166	211	272	195	221																												
31-Jul-16	204	105	140	227	112	153	267	191	217	237	143	179	267	191	217	237	143	179	267	191	217	237	143	179	267	191	217																												
MAX	231			284			261			281			261			281			281			197			1387																														
MIN		101			87			155			111			155			111									781																													
AVG			156			187			204			183			204			183			128			139			998																												
* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter																																																							

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

8/12

EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 16.07.16 TO 31.07.16*																								
TAMIL NADU*																								
Description	UFR										df/dt										TOTAL			
	48.6		48.8		49		49.2		559		df/dt @49.3		df/dt @49.5		df/dt @49.5		df/dt @49.5		df/dt @49.5		df/dt @49.5		df/dt @49.5	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Expected Relief as per SRPC	756	732	753	739	744	744	740	740	559	559	527	527	626	626	626	626	626	626	626	626	626	626	626	626
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	388	279	368	131	272	131	272	131	368	131	272	131	368	131	272	131	368	131	272	131	368	131	272	131
16-Jul-16	388	279	368	131	272	131	272	131	368	131	272	131	368	131	272	131	368	131	272	131	368	131	272	131
17-Jul-16	355	294	358	162	295	162	295	162	358	162	295	162	358	162	295	162	358	162	295	162	358	162	295	162
18-Jul-16	365	284	382	87	277	87	277	87	382	87	277	87	382	87	277	87	382	87	277	87	382	87	277	87
19-Jul-16	359	239	456	238	364	238	364	238	456	238	364	238	456	238	364	238	456	238	364	238	456	238	364	238
20-Jul-16	364	277	453	259	371	259	371	259	453	259	371	259	453	259	371	259	453	259	371	259	453	259	371	259
21-Jul-16	388	290	376	180	295	180	295	180	376	180	295	180	376	180	295	180	376	180	295	180	376	180	295	180
22-Jul-16	365	292	394	174	306	174	306	174	394	174	306	174	394	174	306	174	394	174	306	174	394	174	306	174
23-Jul-16	364	204	405	199	323	199	323	199	405	199	323	199	405	199	323	199	405	199	323	199	405	199	323	199
24-Jul-16	262	175	218	186	306	186	306	186	218	186	306	186	218	186	306	186	218	186	306	186	218	186	306	186
25-Jul-16	355	192	268	118	279	118	279	118	268	118	279	118	268	118	279	118	268	118	279	118	268	118	279	118
26-Jul-16	305	237	275	92	258	92	258	92	275	92	258	92	275	92	258	92	275	92	258	92	275	92	258	92
27-Jul-16	325	243	290	75	247	75	247	75	290	75	247	75	290	75	247	75	290	75	247	75	290	75	247	75
28-Jul-16	329	237	282	88	269	88	269	88	282	88	269	88	282	88	269	88	282	88	269	88	282	88	269	88
29-Jul-16	334	224	277	172	298	172	298	172	277	172	298	172	277	172	298	172	277	172	298	172	277	172	298	172
30-Jul-16	302	202	246	137	301	137	301	137	246	137	301	137	246	137	301	137	246	137	301	137	246	137	301	137
31-Jul-16	345	181	257	386	191	302	191	302	257	386	191	302	257	386	191	302	257	386	191	302	257	386	191	302
MAX	388		456						392												344			
MIN		175		75				190			126			113									1326	
AVG			302		304		287					235			249								1757	

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

9/18

EXPECTED RELIEF VS AVAILABLE AUFR + D/DT RELIEF FOR THE PERIOD 16.07.16 TO 31.07.16*																											
PONDY*																											
Description	UFR												df/dt						TOTAL								
	48.6			48.8			49			49.2			df/dt @49.3			df/dt @49.5**			TOTAL								
	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
Expected Relief as per SRPC	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	24	25	22	27	6	12	116	12	116	12	116	12	116	12	116	12	116	12	116	12	116	12	116	12	116	12	116
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
16-Jul-16	20	10	16	22	7	16	25	16	23	19	19	19	15	9	13	0	0	0	95	61	86	95	61	86	95	61	86
17-Jul-16	19	15	16	21	7	15	23	14	21	19	19	19	14	8	12	0	0	0	93	61	82	93	61	82	93	61	82
18-Jul-16	28	17	21	20	6	11	25	19	23	19	19	19	14	12	13	0	0	0	103	82	87	103	82	87	103	82	87
19-Jul-16	21	10	16	24	5	15	26	11	23	19	19	19	15	9	13	0	0	0	99	45	86	99	45	86	99	45	86
20-Jul-16	20	9	15	22	7	16	26	15	23	19	19	19	15	5	13	0	0	0	96	57	86	96	57	86	96	57	86
21-Jul-16	29	17	24	22	5	15	27	11	23	19	19	19	14	10	12	0	0	0	105	47	94	105	47	94	105	47	94
22-Jul-16	27	21	24	21	6	15	26	19	23	19	19	19	13	10	12	0	0	0	105	82	93	105	82	93	105	82	93
23-Jul-16	24	23	24	18	11	13	23	15	22	19	19	19	13	11	12	0	0	0	94	68	88	94	68	88	94	68	88
24-Jul-16	24	24	24	12	12	12	23	23	23	19	19	19	12	12	12	0	0	0	89	89	89	89	89	89	89	89	89
25-Jul-16	25	17	23	22	5	13	26	11	23	19	19	19	16	8	13	0	0	0	105	47	90	105	47	90	105	47	90
26-Jul-16	25	17	22	23	5	15	24	11	22	19	19	19	14	5	12	0	0	0	104	47	90	104	47	90	104	47	90
27-Jul-16	25	15	19	24	6	15	25	19	23	19	19	19	15	11	13	0	0	0	100	77	88	100	77	88	100	77	88
28-Jul-16	18	14	16	24	5	15	25	19	23	19	19	19	15	11	13	0	0	0	98	70	85	98	70	85	98	70	85
29-Jul-16	26	13	18	24	6	15	24	20	23	19	19	19	14	11	13	0	0	0	102	71	87	102	71	87	102	71	87
30-Jul-16	28	19	23	24	6	15	25	11	22	19	19	19	14	9	12	0	0	0	105	49	91	105	49	91	105	49	91
31-Jul-16	27	23	24	23	7	15	23	14	20	19	19	19	13	9	11				104	70	90	104	70	90	104	70	90
MAX	29			24			27	19		19			16			0			105			105			105		
MIN	9				5			11		19			5			0				45				45			
AVG			20			14			23			19			12			0									88

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

**SLDC SCADA data for df/dt Stage II 49.5 is absent due to non-reporting of RTU of the feeders under that stage for the period 16.07.16 to 31.07.16

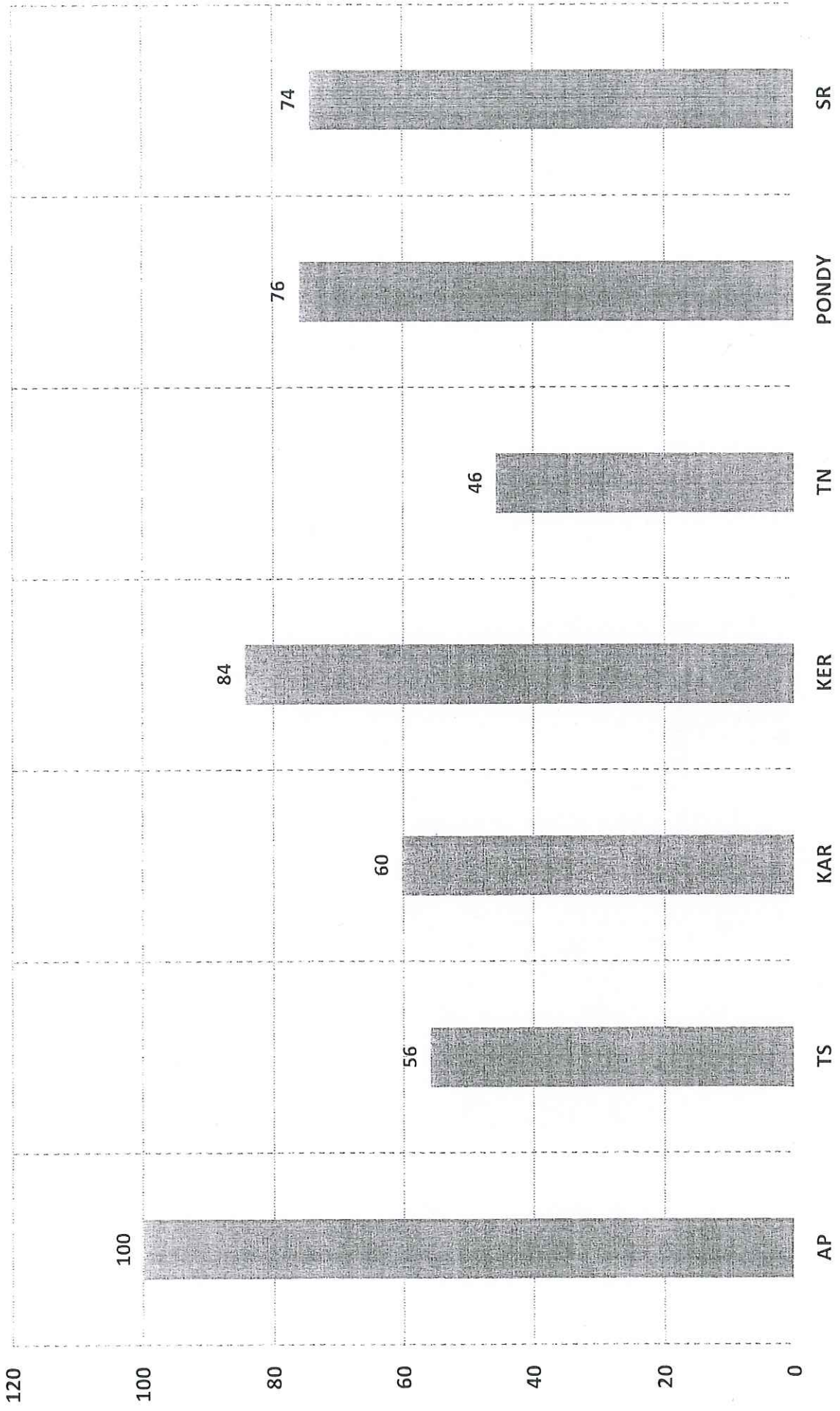
EXPECTED RELIEF VS AVAILABLE AUFR + DF/DT RELIEF FOR THE PERIOD 16.07.16 TO 31.07.16*																								
Description	UFR															df/dt					TOTAL			
	48.6			48.8			49			49.2			df/dt @49.3			df/dt @49.5		TOTAL						
	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
Expected Relief as per SRPC	2400	2400	2390	2390	2360	2360	2350	2350	3235	3235	2003	2003	14738	14738	14738									
Declared Relief considering the Feeders which are available for Monitoring at SRLDC SCADA	1662	1699	1611	1604	1800	1383	9759																	
DATE	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG
16-Jul-16	1290	1006	1136	1292	884	1076	1791	1374	1565	1562	1113	1296	1773	1386	1597	1130	898	1012	8502	6940	7682			
17-Jul-16	1276	979	1127	1192	933	1054	1725	1326	1530	1479	1050	1228	1639	1330	1494	1069	879	973	8189	6679	7406			
18-Jul-16	1287	947	1145	1244	888	1041	1793	1240	1491	1496	956	1191	1678	1349	1527	1054	848	952	8330	6640	7348			
19-Jul-16	1214	824	1008	1315	918	1095	1641	1174	1372	1508	1060	1203	1868	1399	1561	1001	766	870	8271	6350	7109			
20-Jul-16	1224	887	1068	1270	878	1093	1554	1098	1286	1366	1007	1158	1666	1338	1519	1002	814	887	7768	6283	7012			
21-Jul-16	1284	997	1127	1253	901	1037	1722	1281	1454	1483	1088	1275	1724	1443	1576	1076	782	926	8252	6605	7395			
22-Jul-16	1236	940	1122	1259	892	1054	1689	1221	1435	1537	1101	1287	1648	1393	1526	1038	817	922	8260	6494	7346			
23-Jul-16	1220	1021	1114	1215	900	1040	1521	1276	1401	1503	1121	1282	1295	1042	1148	1405	1221	1305	7983	6792	7289			
24-Jul-16	1098	962	1021	1164	903	993	1547	1312	1421	1414	1114	1257	1191	952	1089	1352	1168	1271	7583	6674	7053			
25-Jul-16	1197	941	1059	1268	828	982	1543	1354	1434	1441	1122	1284	1344	922	1146	1357	1150	1248	7915	6535	7154			
26-Jul-16	1106	943	1038	1219	776	967	1530	1331	1423	1308	1044	1185	1340	877	1150	1359	1138	1253	7795	6402	7016			
27-Jul-16	1132	950	1045	1195	770	952	1511	1258	1377	1343	1017	1179	1223	911	1079	1368	1151	1255	7557	6250	6887			
28-Jul-16	1104	937	1023	1214	791	954	1464	1282	1379	1342	997	1182	1272	931	1085	1397	1164	1279	7588	6256	6902			
29-Jul-16	1147	964	1046	1191	802	940	1523	1307	1399	1309	1013	1150	1304	911	1071	1392	1137	1271	7677	6241	6878			
30-Jul-16	1116	936	1024	1151	766	919	1576	1295	1400	1357	1006	1169	1202	912	1040	1434	1180	1302	7514	6298	6852			
31-Jul-16	1139	916	1019	1163	735	915	1513	1311	1398	1281	988	1148	1153	870	991	1417	1158	1281	7436	6247	6753			
MAX	1290			1315			1793			1562			1868			1405			8502					
MIN		824			766			1098			956			877			766			6241				
AVG			1088			1039			1438			1240			1394			1056						7255

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

* Values indicated in the table are considering the feeders in the SCADA snapshots monitored by SRLDC as detailed in Paragraph 2 of Covering Letter

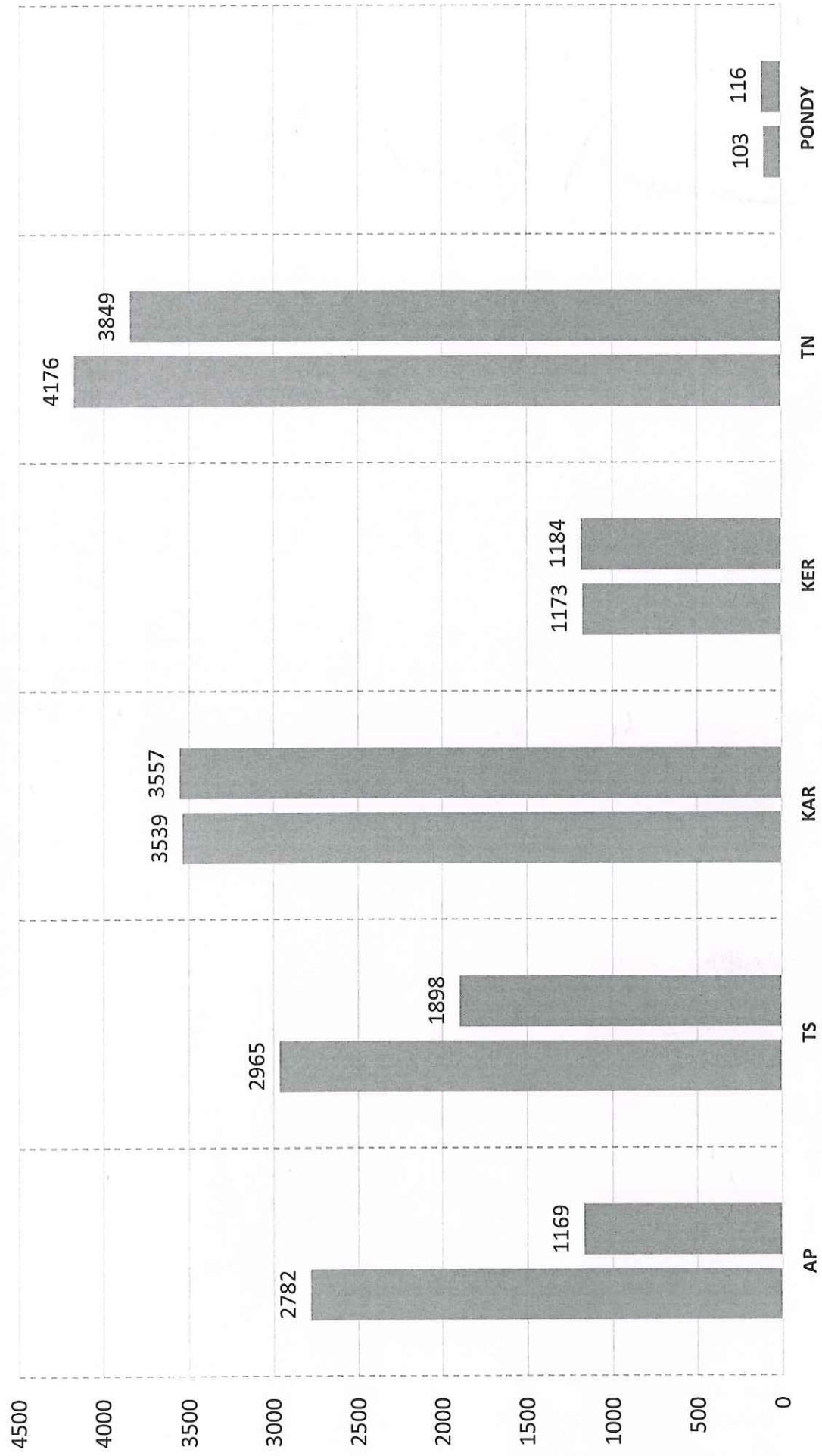
10/12

% Total Visible Relief based on SRLDC SCADA



12/12

Recommended vs SCADA



■ Recommended ■ SCADA Mapped

फैक्स/स्पीड पोस्ट /FAX/SPEEDPOST

भारत सरकार केंद्रीय विद्युत प्राधिकरण दक्षिण क्षेत्रीय विद्युत समिति बेंगलूरु - 560 009	 सत्यमेव जयते	Government of India Central Electricity Authority Southern Regional Power Committee Bengaluru - 560 009	
Web site: www.srpc.kar.nic.in	e-mail: mssrpc-ka@nic.in	Ph: 080-22287205	Fax: 080-22259343
सं/No.	SRPC/SE-II/2016/ 6378 - 83	दिनांक / Date	28.09.2016

To

1. Chief Engineer (Operation), TANTRANSCO, Chennai
2. Chief Engineer (LD), KPTCL, Bengaluru,
3. Chief Engineer (GO), APTRANSCO, Hyderabad
4. Chief Engineer (SO), KSEBL, Kalamassery
5. Chief Engineer (GO), TSTRANSCO, Hyderabad
6. Superintending Engineer-1, Elec. Department of Puducherry

Sub: Submission of quarterly reports in compliance of Hon'ble CERC's Order in Petition No.420/MP/2014-reg.

Ref: 1. KSEBL letter No.CESO/EELD1/AEE2/RE/LVRT/2016-17/2057 dated 08.09.2016.
2. TSTRANSCO letter No.CE/SLDC/F.LVRT/D.No.568/16 dated 19.09.2016.
3. APTRANSCO letter No.CE/SLDC/SE(SLDC)/F.LVRT/ D.No.279/16 dated 20.09.2016.

Sir

As you are kindly aware, the Hon'ble CERC in its Order in Petition No.420/MP/2014 had directed SLDCs to prepare quarterly reports and submit to SRPC with regard to monitoring of installation and performance of LVRT installed on existing WTGs. As agreed in the 29th TCC/30th SRPC meetings held on 26th and 27th August 2016, STUs to furnish the quarterly reports for the two quarters ie., **January-March 2016 and April-June 2016 by 15th September 2016**. SRPC vide letter dated 15.09.2016 had sent a reminder in this regard. APTRANSCO, TSTRANSCO and KSEBL had submitted the quarterly reports vide above referred letters. It was observed that the details furnished in the quarterly reports were not covered as envisaged in the Hon'ble CERC Order. As per the Order, the following details may be indicated in the quarterly reports.

- Monitoring of the installation of LVRT on existing WTGs (before and after 15.04.2014)
- Performance of LVRT on existing WTGs.

In addition to that, the following details may also be furnished:

MSSC
28/9/16
28/9

- Action taken on the WTGs commissioned before 15.04.2014 for making been LVRT/CEA/CERC Regulations compliant
- Action taken for ensuring LVRT/CEA/CERC Regulations compliance for WTGs commissioned after 15.04.2014
- Meeting held with Wind/RE Developers
- Directives issued to Wind developers to change the settings as per CEA Regulations.
- Issues taken up with SERCs
- Steps taken to ensure SCADA availability at SLDCs
- Procedure in place to ensure LVRT/CEA/CERC Regulations compliance for WTGs/Solar
- Any other details wrt LVRT/CEA/CERC Regulations compliance

It is requested that the quarterly reports consisting of the above details may be furnished to SRPC at the earliest. The reports are to be validated in consultation with SRLDC and the deficiency/non-compliance is to be reported to the Hon'ble CERC.

धन्यवाद /Thanking you,

भवदीय / Yours faithfully

असित सिंह

(असित सिंह / Asit Singh)

अधीक्षक अभियंता / Superintending Engineer

o/c

ANNEXURE-12A

10:15 AM (2 minutes ago)

sit singh

to me

From: CPCC SR <cpccsr2000@yahoo.com>

Sent: Wed, 28 Sep 2016 20:55:59

To: Croom Srlde <srldccroom@gmail.com>, EELD SLDC <eeshiftsldechn@gmail.com>, Ee Ld Chennai <eeldchn@tnebn.net.org>, EE/shift/LDC <eeshiftldc@tnebn.net.org>

Cc: OS SRTS II <oandmsr2@yahoo.com>, Maiya Maiya <maiyaum@yahoo.co.in>, Srpc <asitsingh@rediffmail.com>, "V. Suresh" <vs@srldc.org>, V K Khare {風 罌} <vkkhare@powergridindia.com>

Subject: Over loading of Trichy ICTs

Dear Sir,

Trichy ICTs are over loading .Present loading of ICT-1 is 470 and ICT-2 is 480 A.

It is requested to take necessary steps for load regulation.

Regards

पारी प्रभारी,

आर.टी.ए.एम.सी., बेंगलूरु

दक्षिणी क्षेत्र पारेषण प्रणाली-II

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

From: CPCC SR <cpccsr2000@yahoo.com>

To: Croom Srlde <srldccroom@gmail.com>; EELD SLDC <eeshiftsldechn@gmail.com>; Ee Ld Chennai <eeldchn@tnebn.net.org>; EE/shift/LDC <eeshiftldc@tnebn.net.org>

Cc: OS SRTS II <oandmsr2@yahoo.com>; Maiya Maiya <maiyaum@yahoo.co.in>; Srpc <asitsingh@rediffmail.com>; V. Suresh <vs@srldc.org>; V K Khare {वी.के. खरे} <vkkhare@powergridindia.com>

Sent: Wednesday, 28 September 2016 6:59 PM

Subject: Persisting over loading of Trichy ICTs

Dear Sir,

Present loading of ICT-1 is 490 A and ICT-2 is 500 A.

It is requested to take necessary steps for load regulation and ensure proper loading of ICTs at all time.

This is for your information and necessary action please.

Regards

पारी प्रभारी,

आर.टी.ए.एम.सी., बेंगलूरु

दक्षिणी क्षेत्र पारेषण प्रणाली-II

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड



TELANGANA STATE POWER GENERATION CORPORATION LIMITED

Vidyut Soudha, Hyderabad-500 082

PHONE NO. 040-23499181/182

From
CHIEF ENGINEER,
GENERATION, TSGENCO,
III FLOOR, 'A' BLOCK
VIDYUT SOUDHA,
HYDERABAD-82.
TELANGANA STATE.
Phone: 040-23499738
ce.ge1@tsgenco.co.in

To
MEMBER SECRETARY,
SOUTHERN REGIONAL POWER COMMITTEE,
CENTRAL ELECTRICITY AUTHORITY,
29, RACE COURSE CROSS ROAD,
BANGALORE-560009
Fax : 080-22259343/22352616

Lr.No.CEG/SE (GEN-I)/EME-III/ADE (P)/F. SRPC/D.No. 96(a)/16, dt. 17.09.2016

Sir,

Sub: TSGENCO - Prolonged Outage Report for July 2016 - Info - Reg.

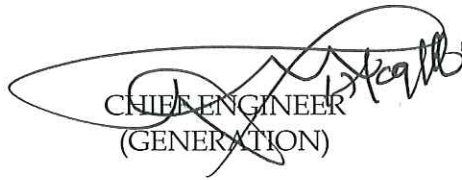
Ref: SRPC/SE-(O)/2016-17/5378-88, dt: 11.08.2016

-o-o-

With reference to the letter cited above, it is to inform that KTPS-V stage Unit No: X (1X250MW) was tripped on 26.07.2016 on Generator Stator Earth Fault and unit is declared for Capital Overhaul from 26th July 2016 onwards. The Generator Stator winding one bar replaced and the capital overhaul of turbine are carried out and the unit was taken into service on 10.09.2016.

This is for your information please.

Yours faithfully,


CHIEF ENGINEER
(GENERATION)

Handwritten notes:
MCC
FMS I/II
Sd/-
21/8

25 pages

ANNEXURE- 12C

Study Report on
Parallel Operation of 220 kV lines with the existing
Inter-Regional lines between WR & SR

September 2016

POSOCO

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Chapter-1: Background

The Southern Region grid was synchronised with N-E-W Grid through the 765 kV Sholapur (WR)-Raichur (SR) circuit-1 on 31st December 2013. Subsequently, inter-connection between SR grid and NEW grid was strengthened with AC lines in a phased manner. At present, the following inter-connections exist between SR grid and NEW grid at 400 kV and above as well as HVDC.

- +/-500 kV, 2 x 1000 MW HVDC bipole from Talcher in Eastern Region to Kolar in Southern Region with 25% overload capability for a duration depending on the ambient temperature and cooling.
- 2 x 500 MW HVDC back-to-back station at Gazuwaka in Southern Region.
- 2 x 500 MW HVDC back-to-back station at Bhadrawati in Western Region.
- 2 x 765 kV Sholapur – Raichur S/C
- 765 kV Kolhapur (PG) – Kudigi (PG) D/C charged at 400 kV

On an average, 5900 MW is being transferred continuously to Southern Region over the above links. The following table gives transfer capability declared between NEW and SR grid.

Table-1: MW Transfer Capability between NEW and SR grid

S. No.	Corridor	Total Transfer Capability (TTC)	Transmission Reliability Margin (TRM)	Available Transfer Capability (ATC)
1	ER-SR	2650	0	2650
2	WR-SR	4000	750	3250
	NEW-SR	6650	750	5900

In addition to above, the following 220 kV lines exist between NEW and SR grid.

- 220kV Talangade (WR) - Chikodi (SR) S/C
- 220kV Mudshingi (WR) – Chikodi (SR) S/C
- 220kV Ponda (WR) – Ambewadi (SR) S/C
- 220kV Xeldam (WR) – Ambewadi (SR) S/C
- 220kV Balimela (ER) – Upper Sileru (SR) D/C

Although these 220 kV lines exist, they are generally operated in radial mode due to a variety of reasons.

1.1. 220kV Talangade (WR) – Chikodi (SR) S/C & Mudshingi (WR) – Chikodi (SR) S/C

These lines are Inter-State lines between Maharashtra in WR and Karnataka in SR. Karnataka was getting power from Maharashtra radially through these 220kV lines. Bus-Split arrangement had been done at 220 kV Chikodi and other 220 kV buses in Karnataka to feed the load radially. This arrangement was a bilateral one between the utilities on either side and not appearing in the Regional Energy Accounts at RPC level. 220kV Talangade – Chikodi & 220kV Mudshingi – Chikodi lines are kept in open condition, since 31st August 2016.

1.2. 220kV Ponda (WR) – Ambewadi (SR) S/C & Xeldam (WR) – Ambewadi (SR) S/C

These are the inter-State lines between Goa in WR and Karnataka in SR. Generally, 220kV Ambewadi-Ponda line is idle charged from Ambewadi S/S side upto gantry point at Ponda sub-station. At 220kV Xeldam (Goa), bus split arrangement has been done to meet ~90MW load in Goa radially through 220kV Ambewadi-Xeldam line and the balance load through Western Region.

Honourable Commission in its order dated 28.1.2016 has approved the transmission charges of 220 kV Chikodi-Kolhapur D/C, 220 kV Ambewadi-Ponda and 220 kV Ambewadi-Xeldam lines and the same is being included in PoC charges calculations.

Parallel Operation of all these four (4) lines along with other inter-regional lines on NEW-SR corridor would increase the reliability of power supply to Goa and Kolhapur areas, improves voltage profile, enhances the transfer capability towards SR marginally and helps in reducing the small signal oscillations on 765 kV Sholapur-Raichur lines due to any tripping in SR etc.

Chapter-2: Need for Parallel Operation of 220 kV lines along with other Inter Regional lines

2.1. Reliability of the power System

Near-Miss Incident on 5th September 2016: Goa power system on WR side is connected to rest of the grid through 400kV Kolhapur (PG) - Mapusa D/C, 220kV Tillary (Maharashtra) - Amona (Goa) S/C and 220kV Mahalaxmi (Maharashtra)-Amona (Goa) S/C. Goa was meeting a load of ~400 MW from WR i.e., 200 MW through 400kV and 200 MW through 220kV. Figure-1 shows the power map of Goa.

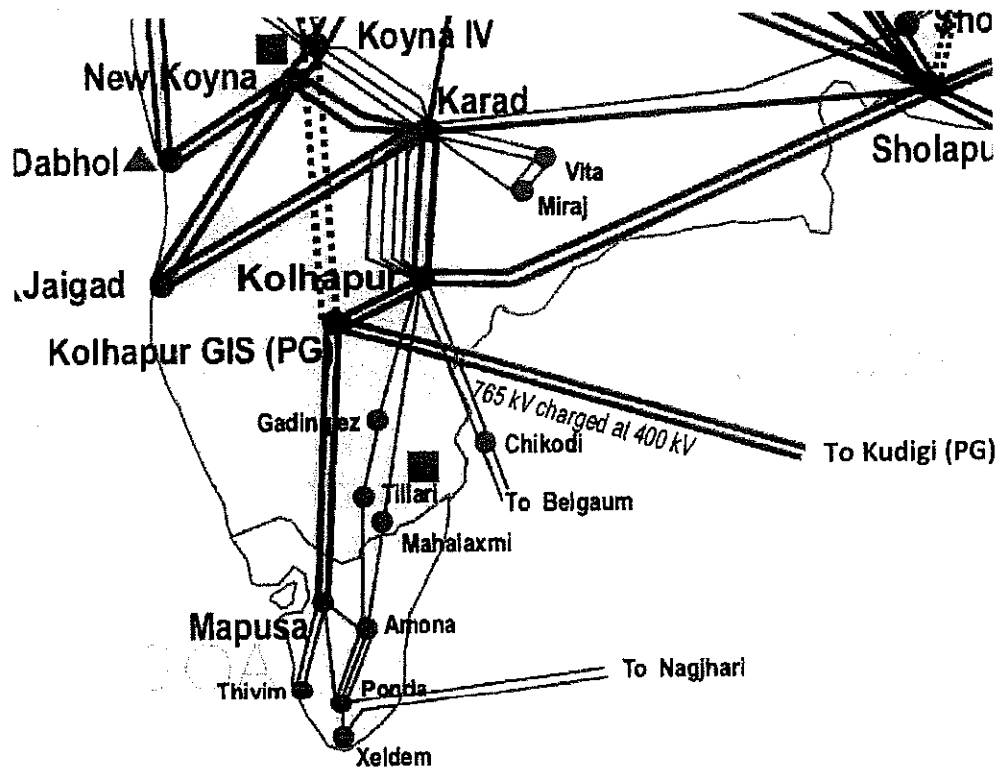


Figure-1: Goa Power Map

Generally, Kolhapur area is a high voltage area and few lines connected to 400 kV Kolhapur sub-station are kept open to control the over-voltage. Due to high-voltage, 400 kV Kolhapur-Karad circuit-1 was kept open since 1614 hrs of 29.08.16. At 1651 hrs of 5th September 2016, 400 kV Kolhapur (MS)-Sholapur (PG) circuit-1 was also taken out to control the high voltage and Line Reactor was converted as Bus Reactor.

Even after opening the two 400 kV lines from Kolhapur (MS), 400 kV Kolhapur (MS) - Solapur (PG) circuit-2 tripped on over-voltage at 17:01 hrs. Further, 400kV Kolhapur (MS) – Karad circuit-2 also tripped on over-voltage at 18:00hrs. This led to feeding of Goa load and the load in Kolhapur area through 400kV Kudigi (PG) - Kolhapur (PG) - Mapusa circuit-1 and through 400kV Kolhapur (PG) - Kolhapur (MS) – 400/220 kV ICTs at Kolhapur (MS) – 220kV network. Any tripping at 400kV Kolhapur (PG) or at 400kV Kolhapur (MS) would have led to load loss in Goa and Kolhapur area during Evening Peak hours.

Had the 220kV Chikodi-Kolhapur D/C, 220kV Ambewadi-Ponda and 220kV Ambewadi-Xeldam lines been there in closed loop, reliability of the system towards these areas would have been much better. Parallel Operation of all these four (4) 220kV lines along with other inter-regional lines on NEW-SR corridor would increase the reliability to GOA and Kolhapur.

2.2. Stability of the system

Parallel Operation of all these four (4) lines would reduce the oscillations on 765kV Sholapur-Raichur lines due to any tripping in SR etc. This is also evident from the observations since 31st December 2013 when SR system was first synchronized and the interconnection strengthened with new lines. URL of the report published in this regard by POSOCO is available at

<http://posoco.in/WebsiteData/Reports/OtherReports/Report%20on%20Low%20Frequency%20Oscillation%20in%20Indian%20Power%20System%20 March%202016.pdf>

Although the parallel operation may give the above benefits to both NEW grid and Southern Grid, the various issues such as Short-Circuit capacity of breakers at 220kV substations, over-loading of transmission lines in upstream and downstream network of 220kV substations etc. would become important. Accordingly, power flow studies have been carried out which are outlined in the subsequent chapters.

2.3. Transfer Capability between SR Grid and NEW grid

At present, the transfer capability between NEW grid and SR grid does not consider these 220 kV lines between WR and SR. Keeping all these lines in closed loop may enhance the transfer capability towards SR. It will also help in reviving these dormant 200 kV lines for which the Hon'ble CERC has approved the transmission charges.

Chapter-3: Power System Studies

3.1. Load Generation Balance Assumptions

All India model has been considered for carrying out the power flow studies. Simulation studies have been carried out in PSS®E. Simulations are carried out for Peak scenario. Table-1 gives the details of Generation and Load considered in Maharashtra, Goa, Karnataka, WR and SR in the study.

Table-1: Load-generation in WR & SR

S. No.	State	Generation (MW)	Demand (MW)
1	Maharashtra	14942	20119
2	Goa (WR)	0	433
3	Goa (SR)	0	89
4	Karnataka	6424	9011
5	Western Region	65041	51680
6	Southern Region	36586	41450

Table-2: Inter-Regional Flows towards SR

S. No.	Name of Transmission line	Flow (MW)
1	Talcher-Kolar Bipole HVDC	2000
2	Gazuwaka BTBHVDC	650
ER -> SR		2650
3	Bhadrawati BTB HVDC	1000
4	765kV Sholapur-Raichur D/C	1338x2
5	400kV Kolhapur(PG)-Kudigi (PG) D/C	120x2
WR -> SR		3910
NEW -> SR		6560

3.2. Power Flow Studies

The main purpose of this study is to evaluate transmission constraints that may be experienced under the parallel operation of 220kV lines along with other inter-regional lines between WR-SR. The following five cases were prepared for this purpose:

Basecase	Under Normal scenario without 220kV lines in service
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Case-1	Synchronous operation of 220kV Mudshingi-Chikodi
Case-2	Synchronous Operation of 220kV Mudshingi-Chikodi & 220kV Talangade-Chikodi
Case-3	Synchronous Operation of 220kV Ambewadi-Ponda, 220kV Mudshingi-Chikodi & 220kV Talangade-Chikodi
Case-4	Synchronous Operation of 220kV Ambewadi-Xeldam, 220kV Mudshingi-Chikodi & 220kV Talangade-Chikodi & 220kV Ambewadi-Ponda
Case-5	Outage of 400kV kolhapur-Mapusa D/C

a) Basecase Observations

- Diagram showing the flow on AC lines between WR-SR is enclosed at Annex-1.
- Sensitivity of tripping of 765kV Sholapur –Raichur one circuit is 88%.
- Flow on individual AC lines under (n-1) of 765kV Sholapur –Raichur line is enclosed at Annex-2.
- Maximum Angular difference Vindhyachal and Cochin is 80.87 degrees.
- Following table gives the angular difference 220kV buses:

S. No.	Substation-1	Angle-1	Substation-2	Angle-2	Ang. Difference	Probable Flow direction, if connected
1	Mudshingi	-44.3	Chikodi	-54.2	9.9	WR ->SR
2	Talangade	-43.8	Chikodi	-54.2	10.4	WR ->SR
3	Ponda	-50.0	Ambewadi	-48.9	-1.1	SR ->WR
4	Xeldam(WR)	-50.5	Xeldam(SR)	-53.9	3.4	WR ->SR

b) Case-1: Synchronous Operation of 220kV Mudshingi-Chikodi

- Diagram showing the flow on AC lines between WR-SR is enclosed at Annex-3.
- Flow on 220kV Mudshingi-Chikodi is 197 MW.
- Sensitivity of tripping of 765kV Sholapur –Raichur one circuit is 85%.

- Flow on individual AC lines under (n-1) of 765kV Sholapur –Raichur line under this scenario is enclosed at Annex-4.
- Maximum Angular difference Vindhyachal and Cochin is 79.71 degrees.

c) Case-2: Synchronous Operation of 220kV Talangade-Chikodi & 220kV Mudshingi-Chikodi

- Diagram showing the flow on AC lines between WR-SR is enclosed at Annex-5.
- Flow on 220kV Talangade -Chikodi is 138 MW.
- Flow on 220kV Mudshingi-Chikodi reduced to 135 MW from 197 MW.
- Sensitivity of tripping of 765kV Sholapur –Raichur one circuit is 84%.
- Flow on individual AC lines under (n-1) of 765kV Sholapur –Raichur line under this scenario is enclosed at Annex-6.
- Maximum Angular difference Vindhyachal and Cochin is 79.43 degrees.

d) Case-3: Synchronous Operation of 220kV Ambewadi-Ponda, 220kV Mudshingi-Chikodi & 220kV Talangade-Chikodi

- Diagram showing the flow on AC lines between WR-SR is enclosed at Annex-7.
- Flow on 220kV Ambewadi-Ponda would be from South to West and is 51 MW.
- Flow on 220kV Talangade -Chikodi and 220kV Mudshingi-Chikodi would increase by 10MW.
- Sensitivity of tripping of 765kV Sholapur –Raichur one circuit is 83%.
- Diagram showing the flow on AC lines under (n-1) of 765kV Sholapur –Raichur line under this scenario is enclosed at Annex-8.
- Maximum Angular difference Vindhyachal and Cochin is 79.53 degrees.

e) Case-4: Synchronous Operation of 220kV Ambewadi-Xeldam, 220kV Mudshingi-Chikodi & 220kV Talangade-Chikodi & 220kV Ambewadi-Ponda

- Diagram showing the flow on AC lines between WR-SR is enclosed at Annex-9.
- Flow on 220kV Ambewadi-Xeldam would get reduced due to flow from Xeldam(West Bus) to Xeldam (South Bus).
- Sensitivity of tripping of 765kV Sholapur –Raichur one circuit is 83%.

- Diagram showing the flow on AC lines under (n-1) of 765kV Sholapur –Raichur line under this scenario is enclosed at Annex-10.
- Maximum Angular difference Vindhychal and Cochin is 79.51 degrees.

f) Case-5: Outage of 400kV Kolhapur-Mapusa D/C

- Diagram showing the flow on AC lines under outage of 400kV Kolhapur-mapusa D/C is enclosed at Annex-11.
- Flow on 220kV under D/C outage shown in the following table

S. No.	Name of the line	Basecase	400kV Kolhapur-Mapusa D/C Outage
1	400kV Kolhapur-Mapusa D/C	328	
2	220kV Tillary-Amona	40	118
3	220kV Mahalaxmi-Amona	33	126
4	220kV Ambewadi-Ponda	60	158
5	220kV Xedam(WR) - Xedam(SR)	-23	49

- Under 400kV D/C outage, if 220kV Ambewadi-Ponda and 220kV Ambewadam-Xedam are not in loop, Goa system might have a cascading failure.

3.3. Fault level at 220kV Sub-Stations and switchgear capacity

S. No.	Name of the Sub-Station	Fault kA in Radial Mode	Fault kA in Parallel Mode	Change in Fault kA
1	Mudshingi	22.78	28.00	+5
2	Talangade	24.26	29.66	+5
3	Chikodi	12.80	20.08	+7
4	Ambewadi	21.37	24.56	+3
5	Ponda	8.73	13.10	+4
6	Xedam	6.00	9.36	+3

Prima facie, no constraints should be there in switchgear capacity as the above values are well within 40 kA.

3.4. Transfer capability towards Southern Region

From the Annex-1 to Annex-10, it can be observed that sensitivity of tripping of 765 kV Sholapur –Raichur one circuit on the other circuit has reduced from 88% to 83%. Accordingly, transfer capability between WR and SR would get increased by 100 to 150 MW.

Chapter-4: Conclusions and Recommendations

- A. Reviving of dormant 220 kV Mudshingi-Chikodi, 220 kV Talangade-Chikodi-, 220 kV Ambewadi-Ponda and 220 kV Amewadi-Xeldam lines would increase reliability of the Goa and Kolhapur area. Further, these lines would also maximize transfers to Southern Region. Reviving these lines would also help in reducing the oscillations observed on 765 kV Raichur-Sholapur lines under unit outages, line trippings etc.
- B. Short-Circuit indicate that Circuit Breakers installed at these 220kV sub-stations would be able to handle the fault current.
- C. **Real Time Data availability at RLDCs and NLDC:** Telemetered data for 220 KV lines must be made available at WRLDC/SRLDC/NLDC.

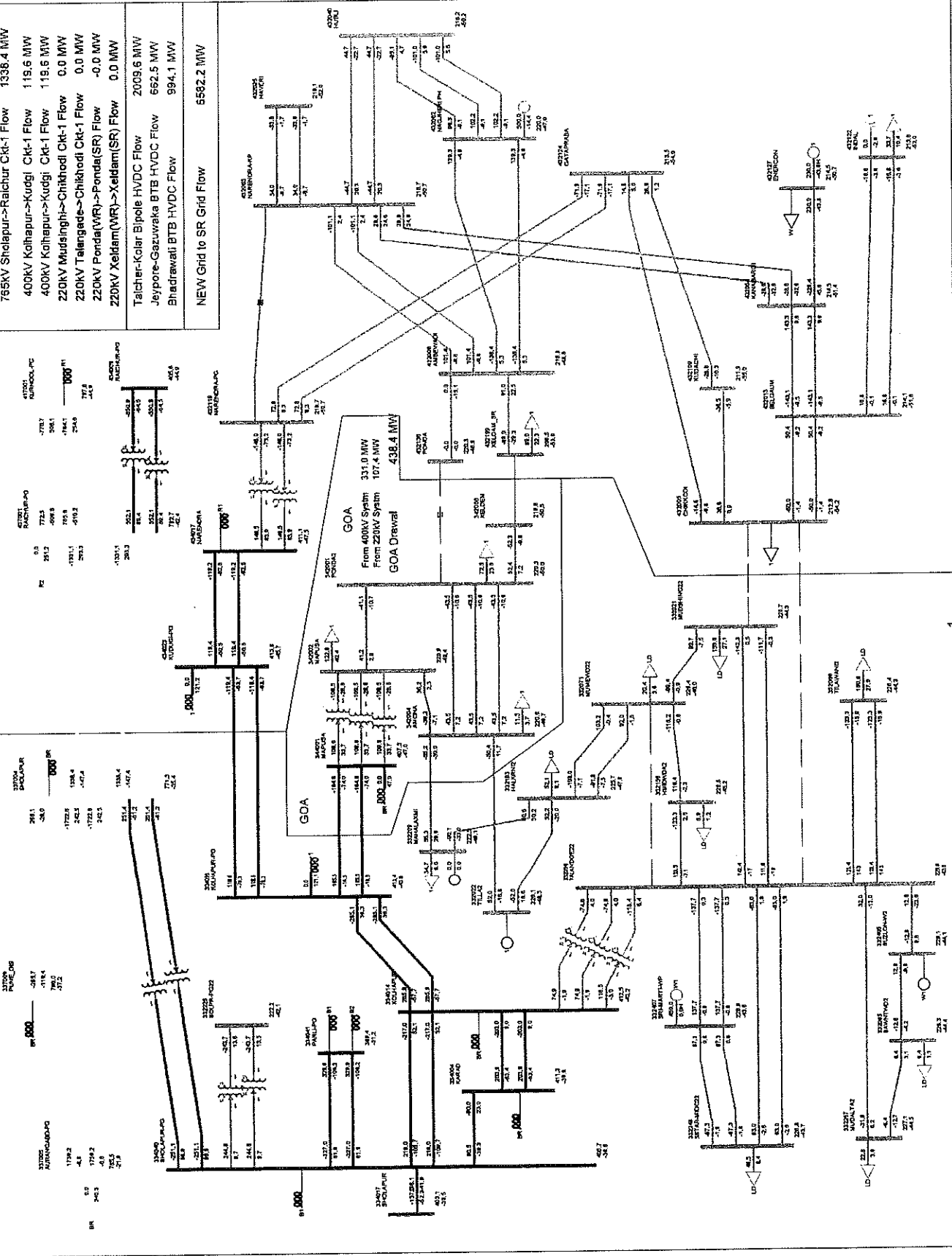
Annex-1

Western Region

Southern Region

NEW to SR IR Flows

755KV Sholapur->Raichur Ckt-1 Flow	1338.4 MW
755KV Sholapur->Raichur Ckt-1 Flow	1338.4 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	119.6 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	119.6 MW
220KV Mulsinghi->Chikhodi Ckt-1 Flow	0.0 MW
220KV Telangade->Chikhodi Ckt-1 Flow	0.0 MW
220KV Ponda(WR)->Ponda(SR) Flow	-0.0 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	0.0 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jaypore-Gazuwaka BTB HVDC Flow	662.5 MW
Bhadrawati BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6582.2 MW

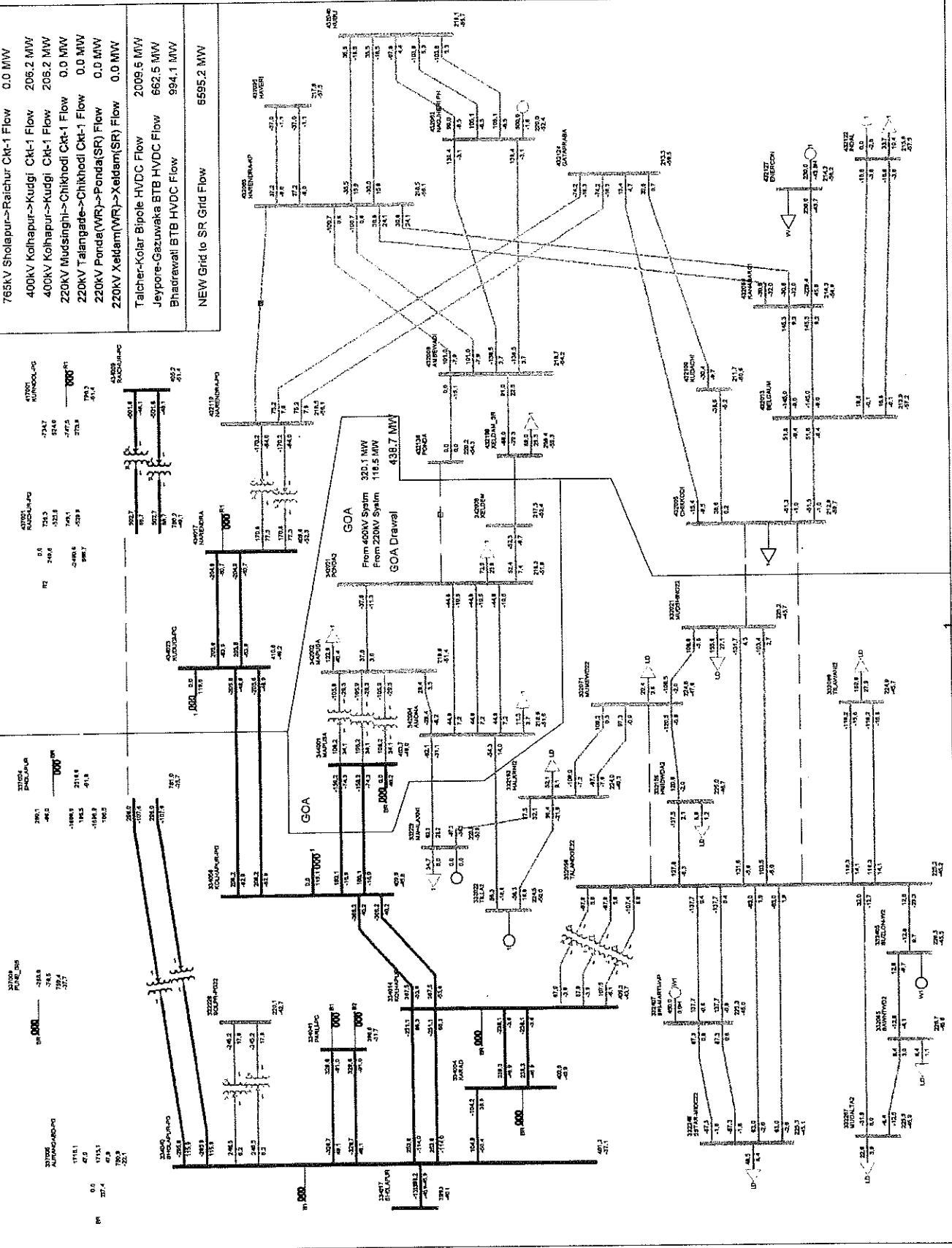


Western Region

Southern Region

NEW TO SKIK FLOWS

755KV Sholapur→Raichur Ckt-1 Flow	2516.6 MW
755KV Sholapur→Raichur Ckt-1 Flow	0.0 MW
400KV Kolhapur→Kudgi Ckt-1 Flow	206.2 MW
400KV Kolhapur→Kudgi Ckt-1 Flow	206.2 MW
220KV Mudisinhli→Chikhodi Ckt-1 Flow	0.0 MW
220KV Talangade→Chikhodi Ckt-1 Flow	0.0 MW
220KV Ponda(WR)→Ponda(SR) Flow	0.0 MW
220KV Xeldam(WR)→Xeldam(SR) Flow	0.0 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jeyapore-Gazuwaka BTB HVDC Flow	662.5 MW
Bhadravati BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6595.2 MW

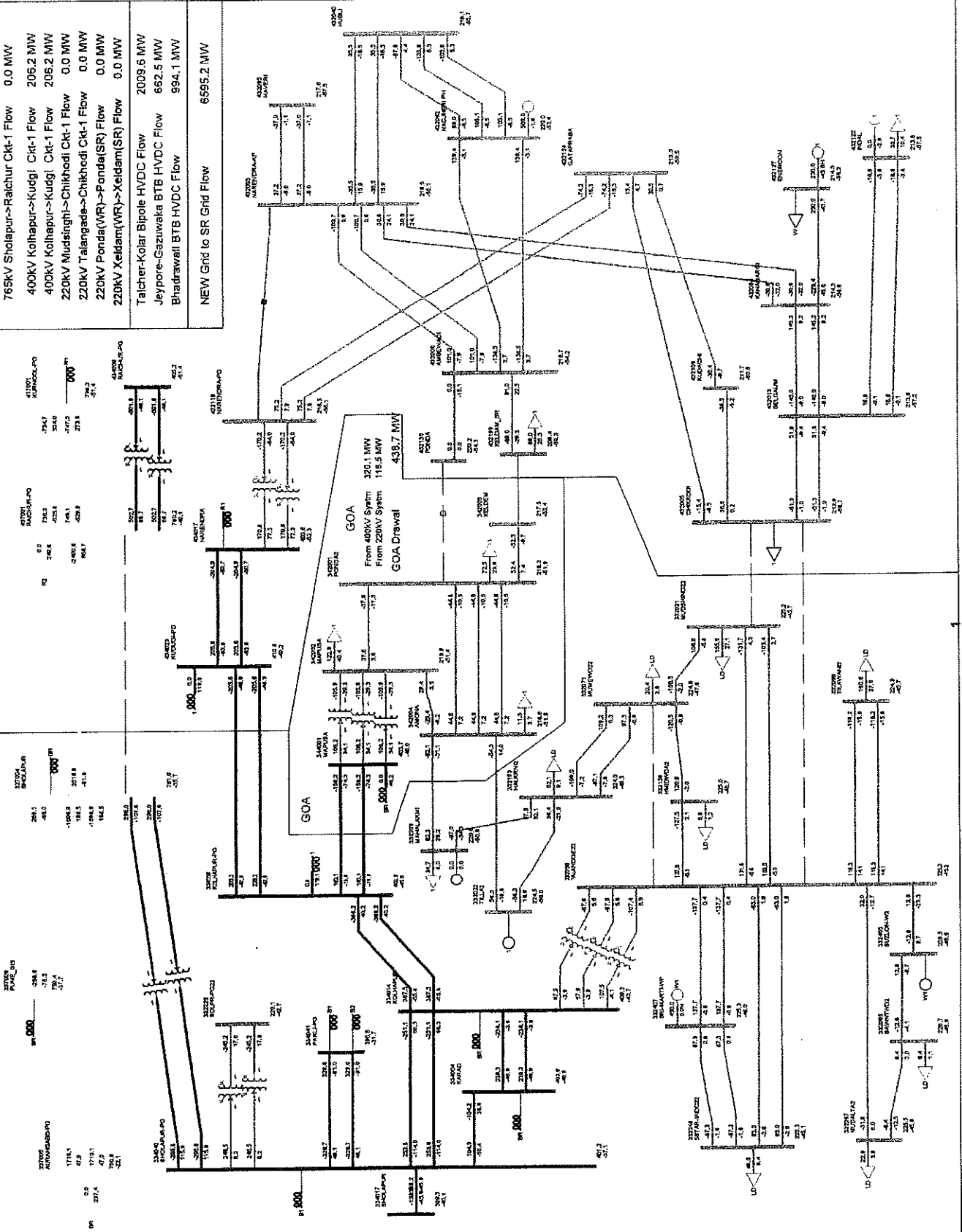


Western Region

Southern Region

NEW to SR IR Flows

765kV Sholapur-Raichur Ckt-1 Flow	2516.6 MW
765kV Sholapur-Raichur Ckt-1 Flow	0.0 MW
400kV Kolhapur-Kudgi Ckt-1 Flow	206.2 MW
400kV Kolhapur-Kudgi Ckt-1 Flow	205.2 MW
220kV Mudsingi->Chikhodi Ckt-1 Flow	0.0 MW
220kV Talangare->Chikhodi Ckt-1 Flow	0.0 MW
220kV Ponda(WR)->Ponda(SR) Flow	0.0 MW
220kV Xeldam(WR)->Xeldam(SR) Flow	0.0 MW
220kV Xeldam(WR)->Xeldam(SR) Flow	2009.6 MW
Jeyepore-Gazuluka BTB HVDC Flow	662.5 MW
Bhadrawali BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6995.2 MW



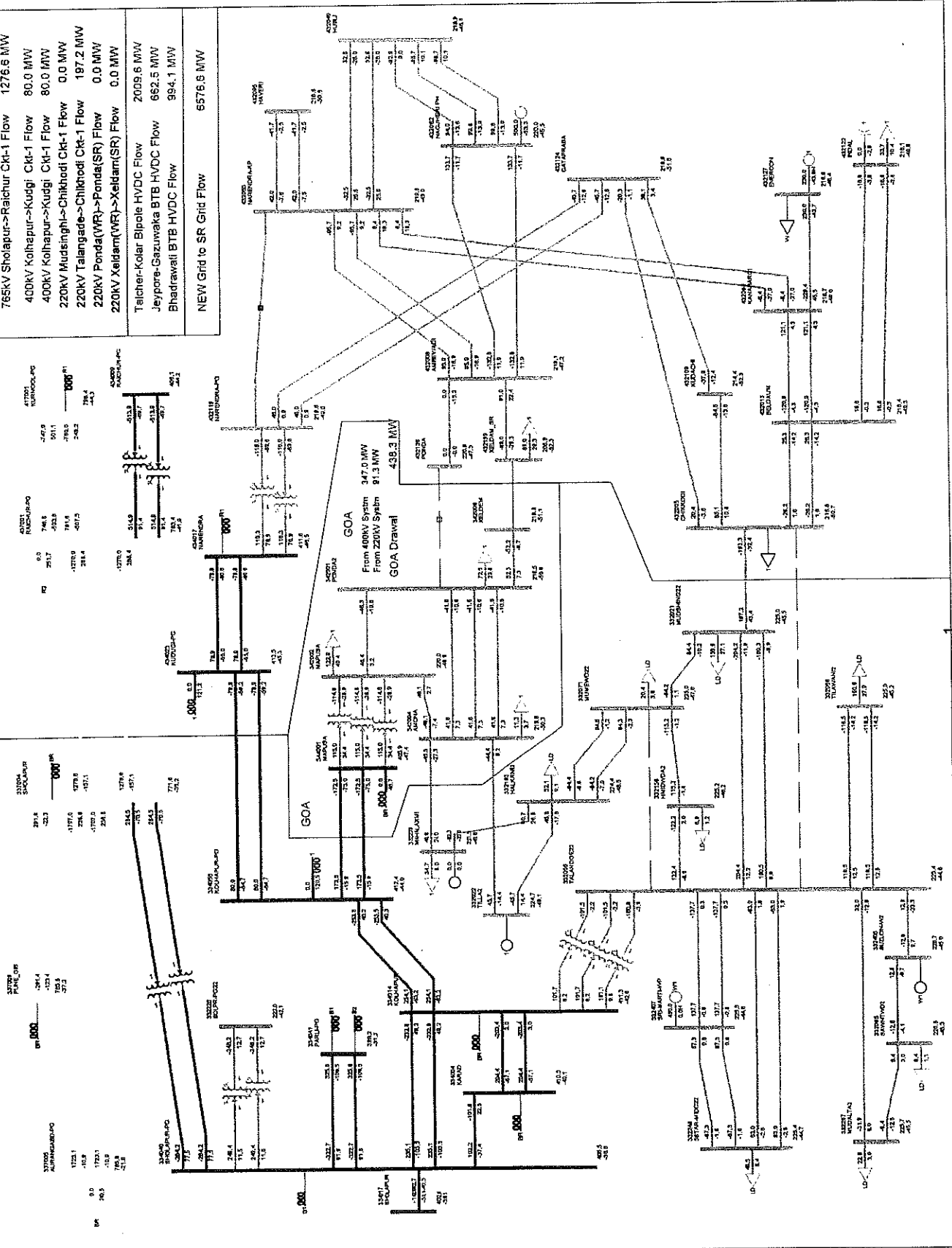
Annex-3

Western Region

Southern Region

NEW to SR IR Flows

765KV Sholapur->Raichur Ckt-1 Flow	1276.6 MW
765KV Sholapur->Raichur Ckt-1 Flow	1276.6 MW
400KV Kohapur->Kudgi Ckt-1 Flow	80.0 MW
400KV Kohapur->Kudgi Ckt-1 Flow	80.0 MW
220KV Mudsinghi->Chikhodi Ckt-1 Flow	0.0 MW
220KV Talangade->Chikhodi Ckt-1 Flow	187.2 MW
220KV Ponda(WR)->Ponda(SR) Flow	0.0 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	0.0 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jeypure-Gazuwaka BTB HVDC Flow	862.5 MW
Bhadrawali BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6576.6 MW



Annex-4

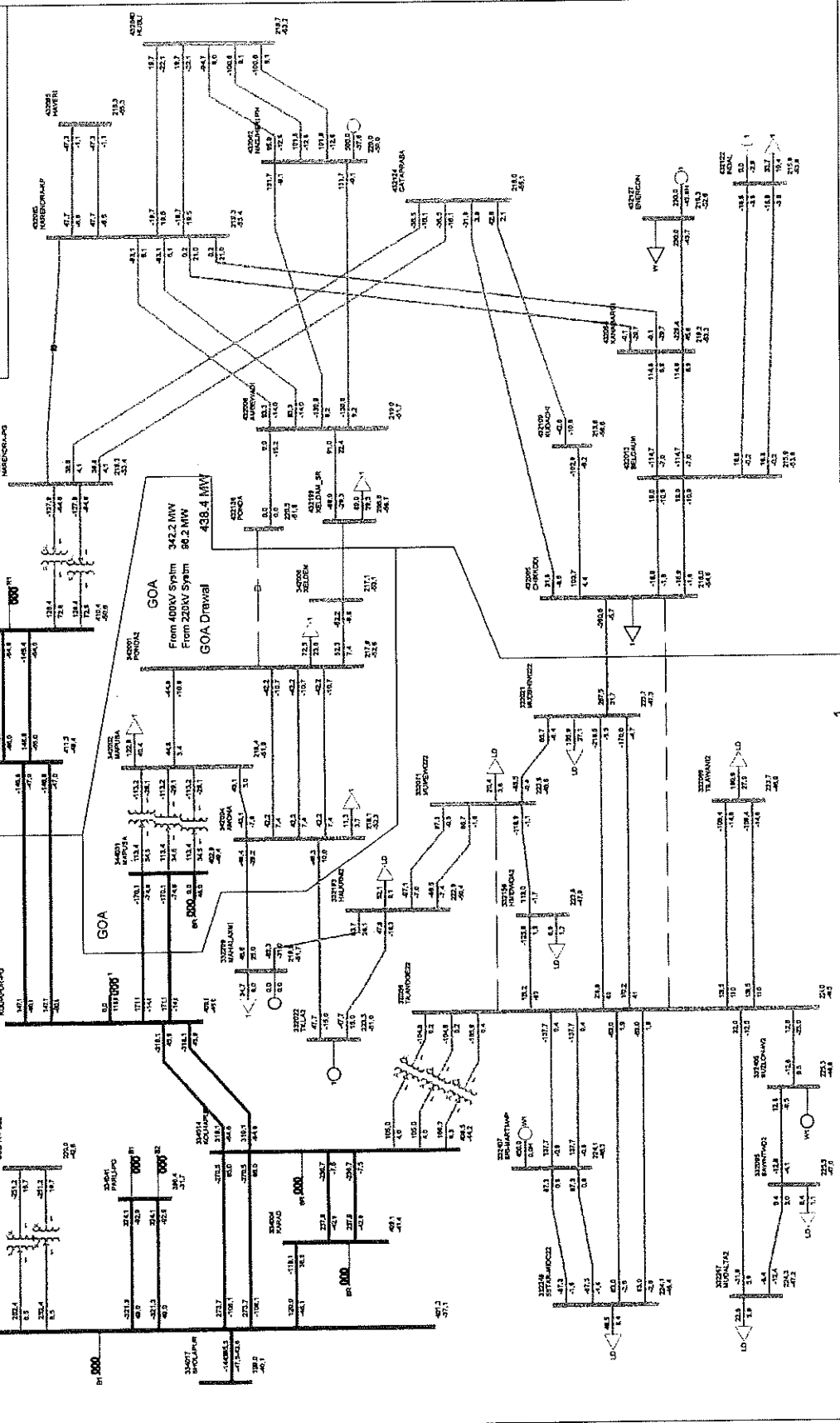
Western Region

Southern Region

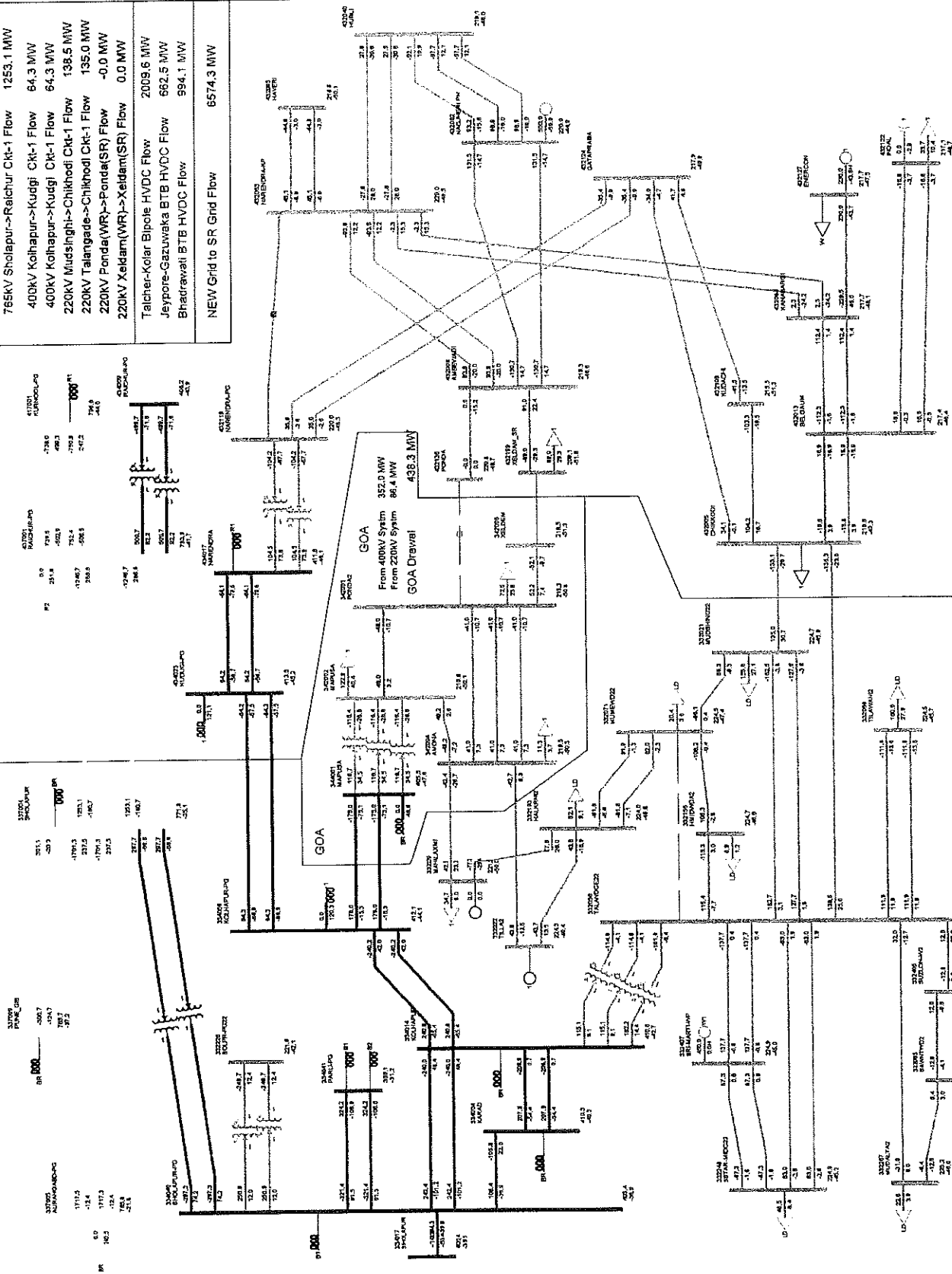
NEW to SR IR Flows

765KV Sholapur->Raichur Ckt-1 Flow	2361.7 MW
765KV Sholapur->Raichur Ckt-1 Flow	0.0 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	147.1 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	147.1 MW
220KV Mudsinghi->Chikhodi Ckt-1 Flow	0.0 MW
220KV Talangade->Chikhodi Ckt-1 Flow	287.5 MW
220KV Ponda(WR)->Ponda(SR) Flow	0.0 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	0.0 MW

Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jaypore-Gazuwaka BTB HVDC Flow	662.5 MW
Bhadravati BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6589.6 MW



765KV Sholapur->Raichur Ckt-1 Flow	1253.1 MW
765KV Sholapur->Raichur Ckt-1 Flow	1253.1 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	84.3 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	84.3 MW
220KV Mudsinghi->Chikhodi Ckt-1 Flow	138.5 MW
220KV Talangade->Chikhodi Ckt-1 Flow	135.0 MW
220KV Ponda(WR)->Ponda(SR) Flow	-0.0 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	0.0 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jeyore-Gazuvaka BTB HVDC Flow	662.5 MW
Bhadrawati BTB HVDC Flow	994.1 MW
NEW Grid to SR Gnd Flow	6574.3 MW

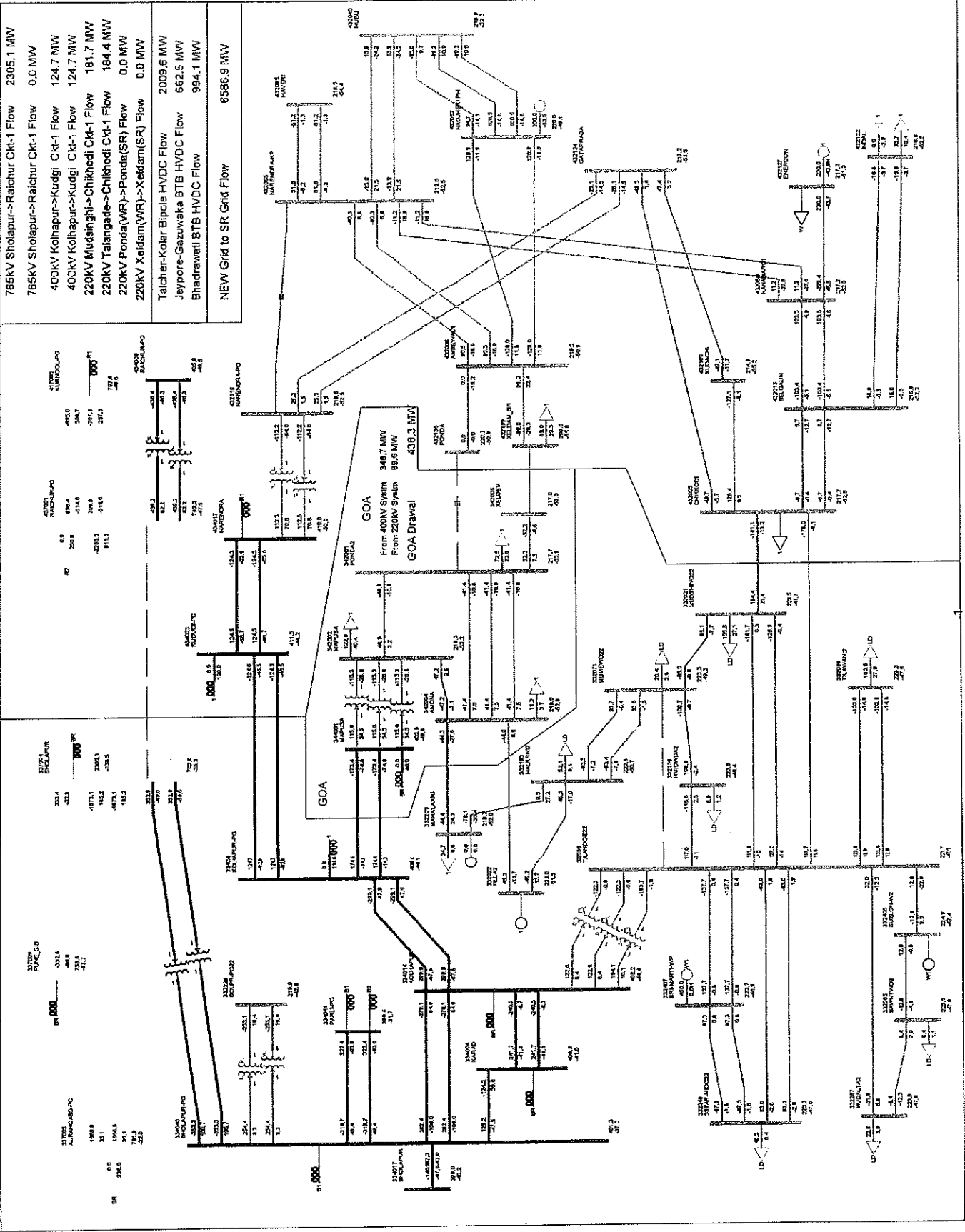


Annex-6

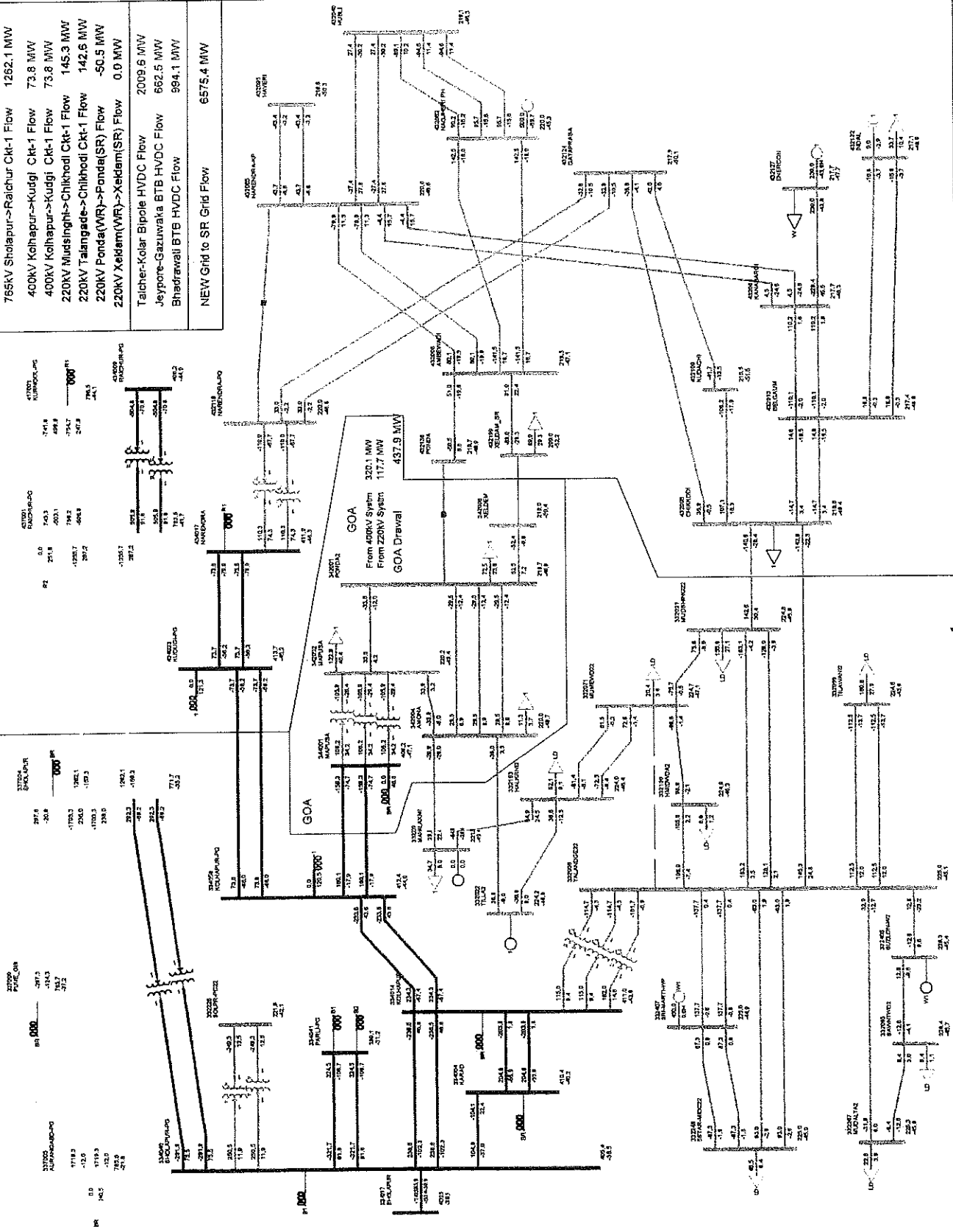
Western Region

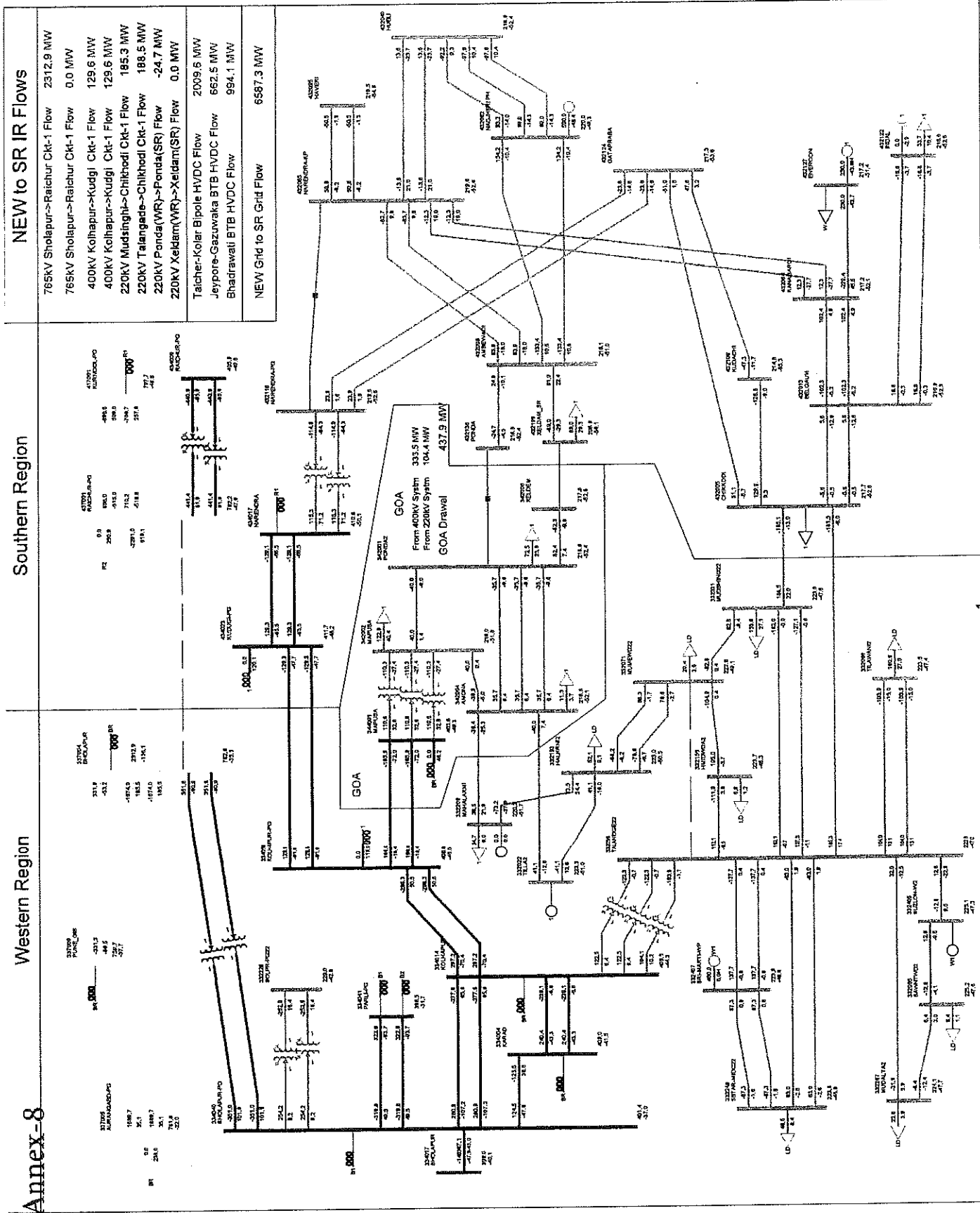
Southern Region

NEW to SR IR Flows

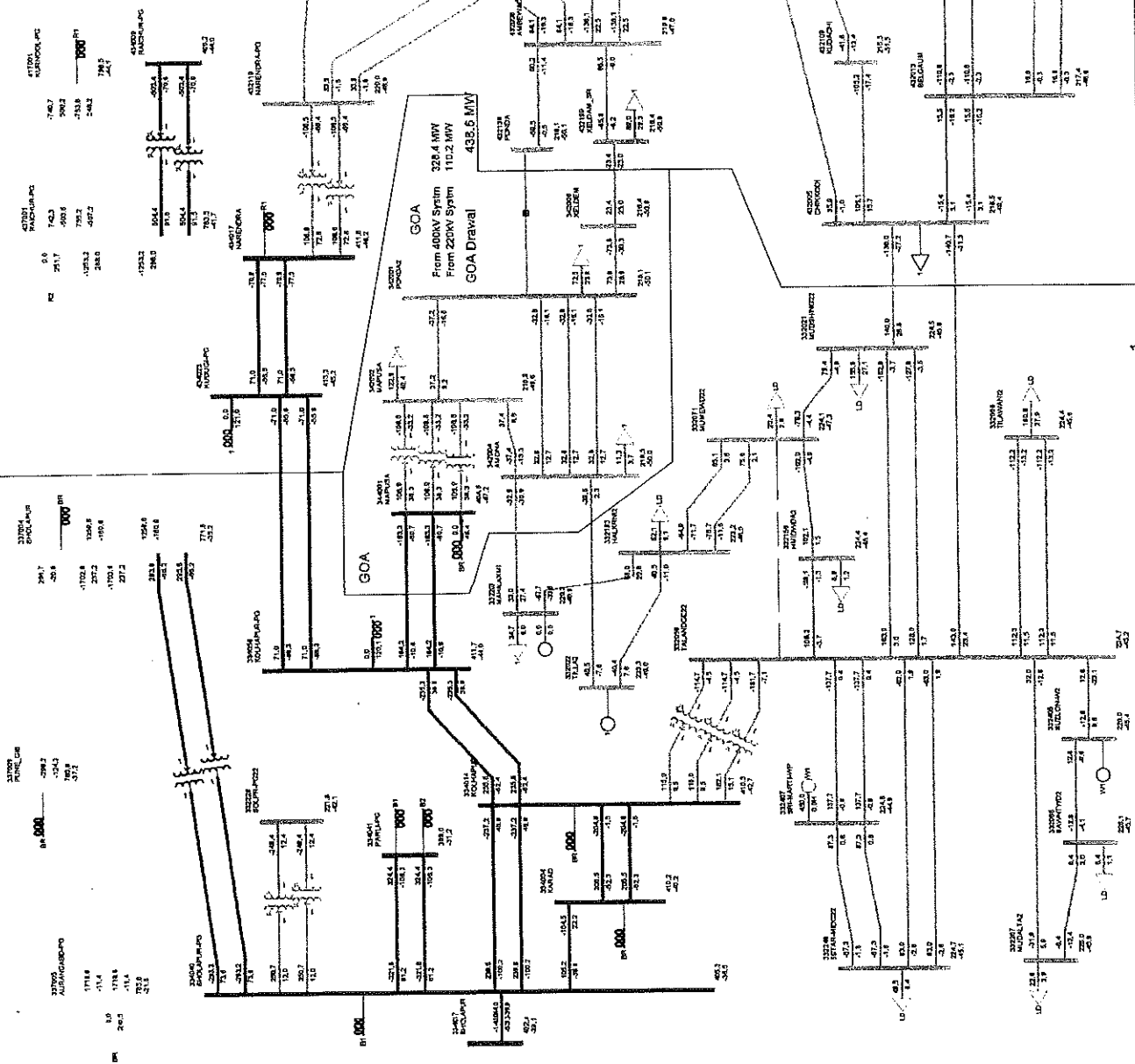


765KV Sholapur->Raichur Ckt-1 Flow	1262.1 MW
765KV Sholapur->Raichur Ckt-1 Flow	1262.1 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	73.8 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	73.8 MW
220KV Mudisingh->Chikhodi Ckt-1 Flow	145.3 MW
220KV Talangade->Chikhodi Ckt-1 Flow	142.6 MW
220KV Ponda(WR)->Ponda(SR) Flow	-50.5 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	0.0 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jeyapore-Gazuwaka BTB HVDC Flow	562.5 MW
Bhadrawali BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6575.4 MW





765KV Sholapur->Raichur CK-1 Flow	1259.6 MW
765KV Sholapur->Raichur CK-1 Flow	1259.6 MW
400KV Kolhapur->Kudgi CK-1 Flow	71.0 MW
400KV Kolhapur->Kudgi CK-1 Flow	71.0 MW
220KV Mudsinghi->Chikhodi CK-1 Flow	143.0 MW
220KV Talangade->Chikhodi CK-1 Flow	140.0 MW
220KV Ponda(WR)->Ponda(SR) Flow	59.5 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	23.4 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jeyapore-Gazuwaka BTB HVDC Flow	662.5 MW
Bhadrawati BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6574.4 MW



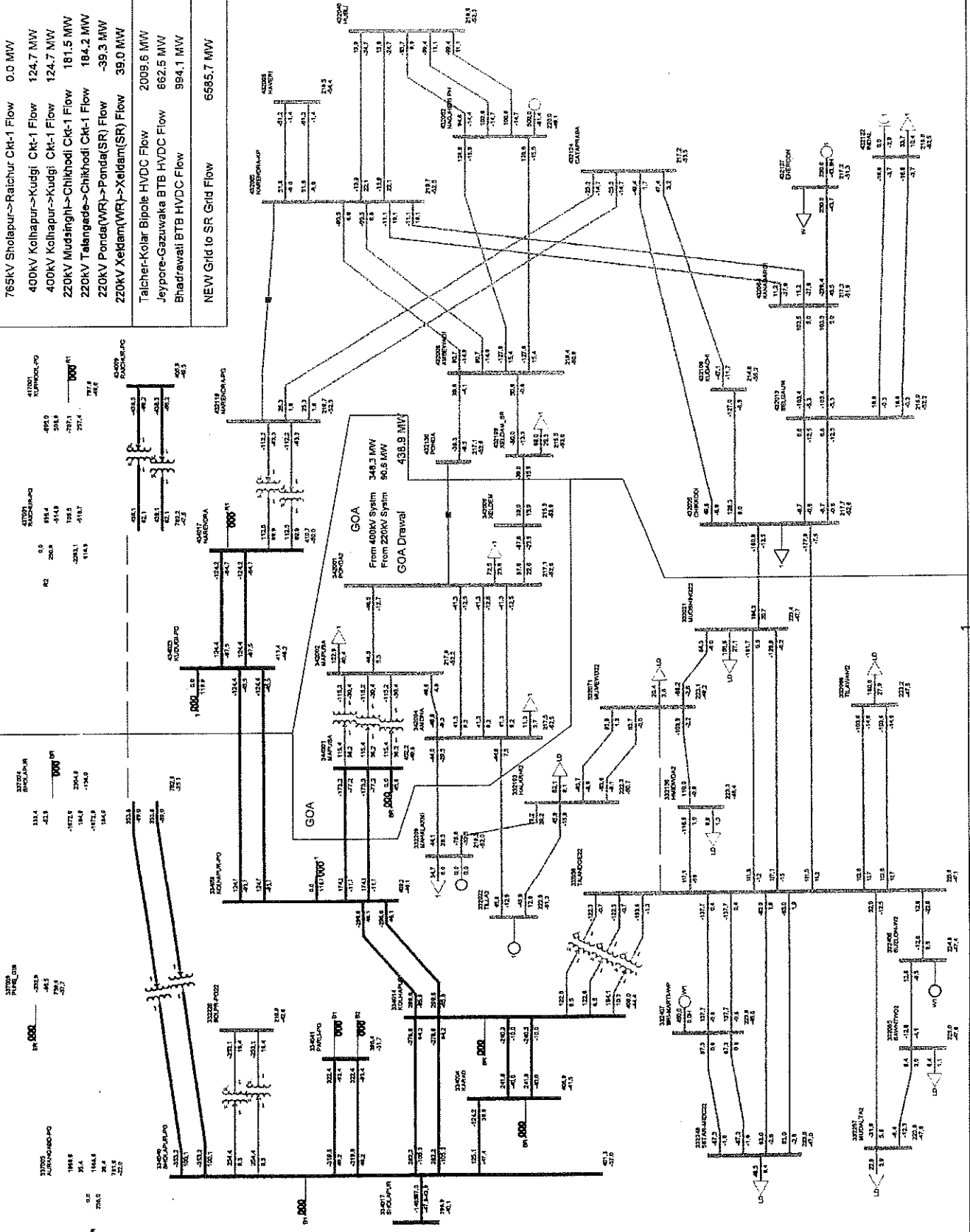
Annex-10

Western Region

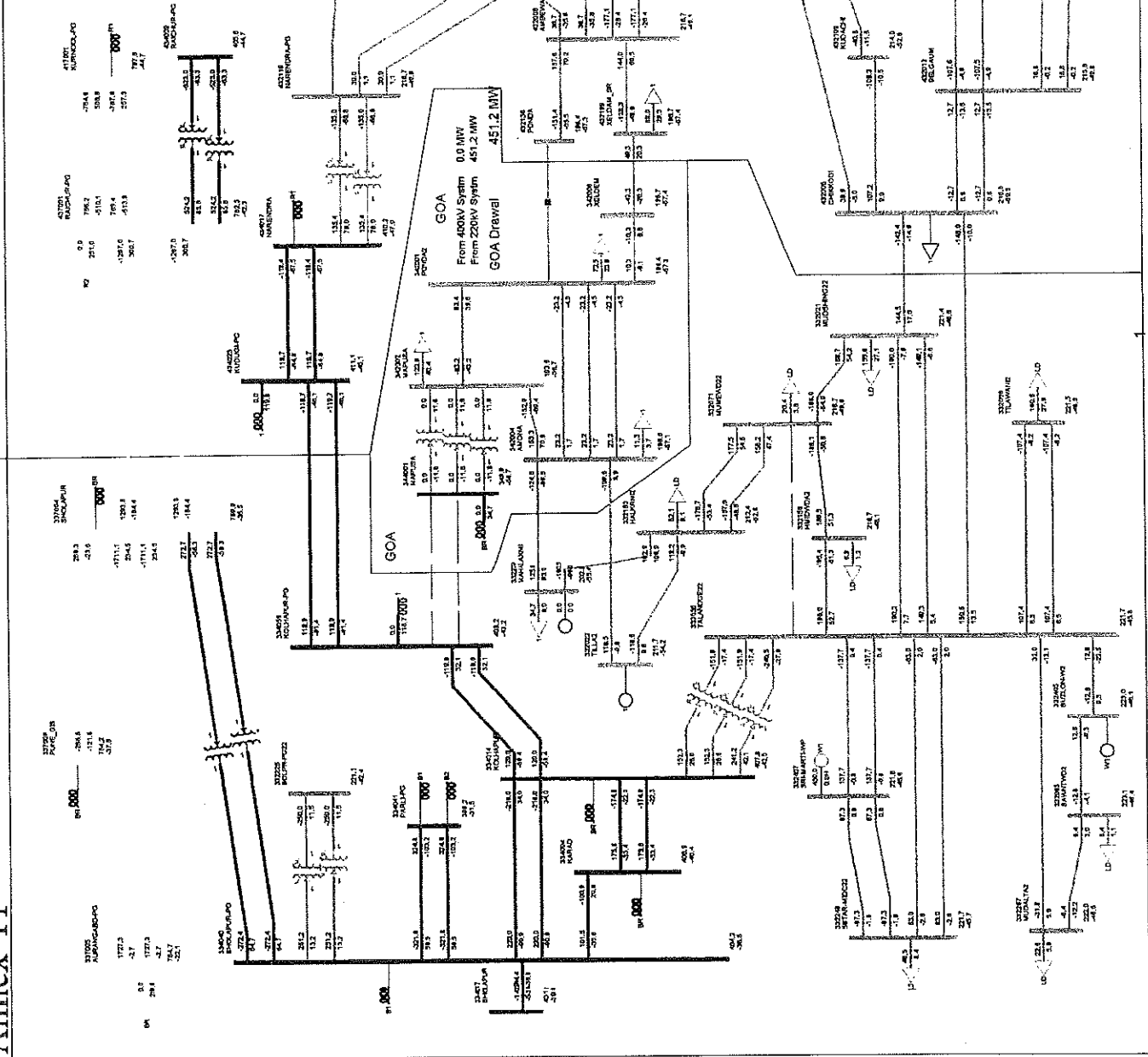
Southern Region

NEW to SR IR Flows

765KV Sholapur->Raichur Ckt-1 Flow	2304.8 MW
765KV Sholapur->Raichur Ckt-1 Flow	0.0 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	124.7 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	124.7 MW
220KV Mudsinghi->Chikhodi Ckt-1 Flow	181.5 MW
220KV Talengade->Chikhodi Ckt-1 Flow	184.2 MW
220KV Ponda(WR)->Ponda(SR) Flow	-39.3 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	39.0 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jeyapore-Gaziwaka BTB HVDC Flow	862.5 MW
Bhadravali BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6585.7 MW



765KV Sholapur->Raichur Ckt-1 Flow	1293.8 MW
765KV Sholapur->Raichur Ckt-1 Flow	1293.8 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	119.9 MW
400KV Kolhapur->Kudgi Ckt-1 Flow	119.9 MW
220KV Mudsinghi->Chikhodi Ckt-1 Flow	150.5 MW
220KV Talangade->Chikhodi Ckt-1 Flow	144.5 MW
220KV Ponda(WR)->Ponda(SR) Flow	-151.4 MW
220KV Xeldam(WR)->Xeldam(SR) Flow	-49.3 MW
Talcher-Kolar Bipole HVDC Flow	2009.6 MW
Jeyapore-Gazuvaka BTB HVDC Flow	662.5 MW
Bhadravali BTB HVDC Flow	994.1 MW
NEW Grid to SR Grid Flow	6587.8 MW



SUPERINTENDING ENGINEER

अधीक्षक अभियंता

असित सिंह / ASIT SINGH)

भवदीय / Yours faithfully

Venue and contact person details will be informed shortly.

2016 (Monday) to enable this office to prepare review sheet etc.

Kindly arrange to send the data in respect of your system latest by 3rd October

office website www.srpc.kar.nic.in for your perusal.

be held on 6th October 2016 (Thursday) at 1000 hrs at Benguluru is uploaded in our

The agenda for the 124th Meeting of the Operation Coordination Committee to

तक भेजने की कृपा करें।

समीक्षा हेतु करके देवें आपकी प्रणाली से संबंधित आंकड़े की कृपया दिनांक 3 अक्टूबर 2016 (सोमवार)

www.srpc.kar.nic.in में अपलोड किया गया है।

2016 (गुरुवार) वेन्यूअर में आयोजित होगी। बैठक की कार्यसूची आपके अवलोकनायुक्त हेमारा वेबसाइट

दक्षिण क्षेत्रीय विद्युत संचालन समन्वय समिति की 124 वीं बैठक दिनांक 06 अक्टूबर

महोदय / Sir,

AGENDA FOR THE 124th MEETING OF THE OPERATION COORDINATION COMMITTEE

प्रचालन समन्वय समिति की 124 वीं बैठक की कार्यसूची।

सेवा में / To: संलग्न सूचि के अनुसार / As per enclosed list

सं/No.	SRPC/SE(O)/124 th OCC/2016-17	दिनांक/ Date	30.09.2016
Email: msrpc-ka@nic.in seopmsrpc-ka@nic.in srpc.operation@gmail.com		Phone: 080-22384339	Fax: 080-2259343
भारत सरकार क्षेत्रीय विद्युत प्राधिकरण दक्षिण क्षेत्रीय विद्युत संचालन समिति बंगलूर- 560 009		 Government of India Central Electricity Authority Southern Regional Power Committee Bangalore- 560 009	

SRLDC Agenda

POWER SYSTEM OPERATION CORPORATION LTD.

(A wholly owned subsidiary company of POWERGRID)

SOUTHERN REGIONAL LOAD DESPATCH CENTRE

29, Race Course Cross Road, Bangalore-560 009

CIN No. U40105DL2009GOI188682



Ref: SRLDC / SO-II/ 2016 /OCC

Dated: 27/09/16

To
Member Secretary
Southern Regional Power Committee,
Bangalore-09

Sub: Agenda for the 124th OCC Meeting of SRPC – Reg.

Dear Sir,

The operational issues attached in Annexure-I may please be included in the agenda of the forthcoming OCC meeting of SRPC.

Thanking you,

Yours faithfully,

**Addtl .General Manager (SO-II)
SRLDC, Bangalore**

SRLDC Agenda for the 124th OCC Meeting of SRPC

It is requested that the following operational issues may please be included in the agenda of the forthcoming OCC meeting of SRPC:

1. Highlights:

- a) BSRP workshop for Karnataka successfully completed on 26th Sep-16
- b) MVAR capability testing of N'Sagar completed on 17.09.16 & UPCL on 27th Sep-16
- c) No backing down of wind in Southern Region.
- d) Kadamparai units being operated in pump mode as and when TN under draws sustaining.

✓ 2. Revised procedure for approval of LC

- a) Web based outage coordination system started from 01.07.2016 – all utilities requested to use the same.
- b) Need for the request on D-3 basis(D-day of LC) and common LC request format

✓ 3. LGBR & ATC/TTC Computations

- a) Arrangements to meet the Demand and Energy shortage for October 2016.
- b) Status review of ATC / TTC calculation by SLDCs.
- c) Status review of Development of State of the Art load forecasting tools as per clause 5.4.2 of IEGC.
- d) Load Generation Balance in Real time.
- e) Submission of LGBR on day ahead basis in specified format or submission of network data in PSSE format (.raw files).
- f) ATC-TTC workshop to be conducted at SRLDC for AP SLDC on 27th & 28th Sep

4. Issues for discussion

- a) VC integration
 - KPTCL: commissioned.
 - TANTRANSCO: Progress
 - Enabling the communication channel from Back up SRLDC to back up NLDC
- b) SCADA computation philosophy of drawl by state utilities
- c) Discussion on Scheduling of Kaumudhi Solar park

5. Analysis of Low Frequency Operation in Southern Region during September 2016 and action plan by SR constituents to avert such instances of violation

- a) Summary statement of different violation messages issued by SRLDC to each constituent as per new IEGC amendment - *Annexure III*
 - b) Status Review of Operation of ADMS
 - c) Review of forecast vs Actual demand of SR constituents- *Annexure IV*
 - d) Status review of operation of N'sagar in pump mode
- 6. **Review of action plan to avert Low Voltage conditions in SR**
 - a) Low Voltages at Somanahalli, Trichur, Kochi & Hosur etc *Annexure V A*
 - b) Status of Implementation of UV Relays at identified locations
 - TN: Status of implementation of 2nd stage at Udumalpet & implementation at Hosur, Salem as per logic finalized in 26.04.16 meeting.
 - KAR: Status of implementation of UV relays at Somanahalli, Neelamangala, Bidadi & Hoody as per agreed logic in 17.06.16 spl Meeting
 - c) Action plan for installing of capacitor banks as per 26.04.2016 meeting recommendations.
- 7. **Analysis of High Voltage conditions in SR and review of actions by Regional Entities**
 - a) High Voltage at 400 KV Vijaywada, VTPS, Hyderabad, N'Sagar, Gooty, Karnool, Malkaram, Hassan, SriSailam, Sathenappalli, Narendra, Almatty, Raichur, Mahboobnagar and 765 KV stations namely NPS, Thiruvalam and Kurnool stations *Annexure V B*
 - b) Status review of Bus/Line Reactor & STATCOM at as approved in various meetings & Standing Committee – *Annexure - V C*
 - c) MVAR Capability testing of N'Sagar conducted on 17.09.16.
 - (i) Plan for rectification of issues with condenser mode of operation of Unit#4 & 6 of N'Sagar.
- 8. **Network Protection / Security Issues**
 - a) Status review of AUFR, df/dt & Automatic disconnection of Radial feeders
 - (i) SR States to complete 100% SCADA mapping of AUFR & df/dt by 31st Dec 2015 as per CERC Order dated 27.11.15 on 60/MP/2014
 - b) Loadability of ICTs and revisit of the associated protection settings to prevent cascaded tripping of ICTs
 - N-1 violation of Neelamangala, Vemagiri, Hoody, Somanahalli, Trichy, Ramagundam ICTs
 - c) LVRT Implementation for wind and solar generation in SR & Confirming LVRT compliance of newly commissioned Wind/Solar generators
 - d) Discussion on LVRT & other protection requirements & scheduling of Solar parks

- (i) NP Kunta Solar park
 - (ii) Kaumudi Solar park
 - (iii) Ramagundam solar park
- e) Status Review of submission of tripping details/reports received in September 2016
Annexure VI

9. Disaster Management

- a) Development of mock exercise procedure for Individual Stations / Systems.
- b) Point to point mock exercise conduction for black start by all constituents
- c) Development of Procedure for restoring Metro Operation in case of Black out.
- d) Black start workshop for Kerala at Kalamaserry on 20th Oct 2016.
- e) Nodal officer details for disaster management-SRLDC mail *Annexure-VII*
- f) Conducting mock drill exercise from RTPS to Jurala, Naghjeri to BTPS and Kaiga NPP
- g) Feedback on MVAR capability testing/BSRP mock exercise conducted during Sept 2016

10. Review of RGMO / FGMO & FRC in Southern Region

- a) The RGMO status of State generating station (consolidated table) may be made available to SRLDC through ICCP-JSW.
- b) Status Review of action taken on the recommendation of Meeting held on 30.09.15 on RGMO & MVAR.
- c) Implementation of RGMO by TPCIL & Coastal as per IEGC provisions- Status

11. Transmission Network and System operation Issues

- a) Status Review of Prolonged Outages of Grid Elements in SR *Annexure-VIII*
 - Status of replacement of 400/220kV RSTPS ICT-2
 - Status of revival ICT 2 at Hoody
- b) Furnishing declaration by all Regional Entities on auto reclose status of 400/220 kV ISTS and State owned lines
 - Status of Auto reclose at Bhavini end for 220kV Bhavini-Sirsi 1 &2
 - Status of A/R feature in 220kV Ambewadi-Ponda
 - Status of A/R for MAPS connected schemes & Kgs-Guttur Line
 - Availability of A/R scheme for all 220kV lines
 - Status of A/R for Nagjheri connected lines
- c) Review of operation of Inter Regional & Intra regional line:
 - 220kV Upper Sileru-Balimela line
 - 220kV Raichur-Jurala-Veltoor in grid mode

- Chikkodi-Mudishinge/Talangade & Ambewadi-Ponda/Xeldam feeders in grid mode -*Annexure-IX*

12. Submission of details of new elements to be provided on monthly basis in the agreed format **by all the Regional Entities.**

13. Status review of Upcoming Generating / Transmission Elements in SR

- a) Status of New units viz Kudigi TPS
- b) Kudankulam Unit #2 testing and commissioning activities schedule.
- c) ATS for Yermarus,BTPS-3,Hinduja and Coastal Energen

14. Other Issues/Points

- a) Alternative auxiliary supply arrangement for Bhadrawathi back to back HVDC station in view of shifting of 315MVA ICT.
- b) Status review of actions taken by SEPL/MEPL in respect of Hon'ble commission order in I.A. Nos. 34/2015 and 5/2016 in petition no: 205/MP/2011
- c) Reconciliation of schedules within the same shift by Regional Entities.
- d) Replacement of Insulators of NCTPS-Vallur lines
- e) Separate control area for Nellore PS Complex generation before synchronization of NCC units.
- f) Progress of NLC TS2 – TS1 Expn re-conductoring works (end span works and isolator replacement)
- g) Preparedness for fog weather-Insulator tracking.

The data / details furnished above are of SCADA values and up to 25.09.2016. Any other important operational issue for the period covering from 25-09-2016 up to the meeting date will be intimated later with a copy to the concerned for detailed discussion in the OCC meeting.

Date	FREQUENCY VIOLATION											
	APTRANSCO			TELENGANA			KPTCL			KSEB		
	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC
1-Sep-16												
2-Sep-16												
3-Sep-16							1					
4-Sep-16												
5-Sep-16				1								
6-Sep-16											2	
7-Sep-16												
8-Sep-16												
9-Sep-16												
10-Sep-16												
11-Sep-16												
12-Sep-16												
13-Sep-16												
14-Sep-16												
15-Sep-16												
16-Sep-16											1	
17-Sep-16												
18-Sep-16											3	
19-Sep-16		1										
20-Sep-16												
21-Sep-16												
22-Sep-16												
23-Sep-16												
24-Sep-16												
25-Sep-16												
26-Sep-16												
27-Sep-16												
28-Sep-16												
29-Sep-16												
30-Sep-16												
Total	0	1	0	1	0	0	1	0	0	0	6	0

Annexure I(c)

Annex - iii

[illegible]

[illegible]

Date	VOLTAGE VIOLATION															
	APTRANSCO				TELENGANA				KPTCL				KSEB			
	Alert	EMERGENCY	NC		Alert	EMERGENCY	NC		Alert	EMERGENCY	NC		Alert	EMERGENCY	NC	
1-Sep-16																
2-Sep-16																
3-Sep-16																
4-Sep-16																
5-Sep-16																
6-Sep-16																
7-Sep-16					1											
8-Sep-16																
9-Sep-16																
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11-Sep-16																
12-Sep-16																
13-Sep-16					1				1							
14-Sep-16																
15-Sep-16																
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17-Sep-16																
18-Sep-16																
19-Sep-16																
20-Sep-16																
21-Sep-16	1				1											
22-Sep-16																
23-Sep-16																
24-Sep-16																
25-Sep-16																
26-Sep-16																
27-Sep-16																
28-Sep-16																
29-Sep-16																
30-Sep-16																
1-Oct-16	1	0	0		2	1	0		1	0	0		0	0	0	0

LOADING VIOLATION																		
Date	APTRANSCO			TELENGANA			KPTCL			KSEB			TANTRANSCO			PUDUCHERY		
	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC	Alert	EMERGENCY	NC
1-Sep-16																		
2-Sep-16																		
3-Sep-16																		
4-Sep-16														1				
5-Sep-16																		
6-Sep-16																		
7-Sep-16																		
8-Sep-16																		
9-Sep-16																		
10-Sep-16																		
11-Sep-16																		
12-Sep-16										1								
13-Sep-16																		
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15-Sep-16																		
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25-Sep-16																		
26-Sep-16																		
27-Sep-16																		
28-Sep-16																		
29-Sep-16																		
30-Sep-16																		
TOTAL	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0

Mean Absolute % Error(Forecast vs Actual Demand)

	AP	TS	KAR	KER	TN
01-Sep-16	2.20	5.29	12.12	4.70	4.62
02-Sep-16	3.70	8.20	14.59	11.51	4.24
03-Sep-16	3.16	3.40	9.81	7.83	4.66
04-Sep-16	5.73	2.20	9.59	3.61	9.24
06-Sep-16	4.82	3.09	2.58	1.70	4.91
07-Sep-16	5.95	3.03	2.54	2.85	7.71
08-Sep-16	8.04	2.54	3.47	2.71	4.17
09-Sep-16	7.40	4.82	7.18	2.52	4.07
10-Sep-16	3.36	9.57	5.55	2.78	2.58
11-Sep-16	5.44	14.92	6.07	1.70	8.30
12-Sep-16	3.99	8.35	5.69	2.44	4.06
13-Sep-16	4.60	11.67	11.63	5.23	7.73
14-Sep-16	2.79	14.58	14.67	9.00	4.49
15-Sep-16	3.83	9.20	19.28	9.34	3.84
16-Sep-16	3.73	5.65	19.13	3.70	10.75
17-Sep-16	1.89	3.24	7.02	2.44	6.33
18-Sep-16	4.77	4.49	7.68	5.79	3.51
19-Sep-16	6.58	3.24	3.22	4.15	4.70
20-Sep-16	2.70	9.60	3.81	2.40	4.54
21-Sep-16	11.21	10.64	9.36	2.71	4.57
22-Sep-16	16.56	10.46	16.64	5.88	3.26
23-Sep-16	4.86	11.73	15.06	3.31	3.83
24-Sep-16	3.82	4.80	11.88	2.76	3.83
25-Sep-16	3.84	5.41	12.52	13.36	6.03

STATEMENT OF LOW VOLTAGE PROFILE IN SR FOR THE PERIOD 01.09.2016 TO 25.09.2016*

	Bangalore		Trichur		Pallad		Udumalpet		Cochin		Tiruvandrum		Nellamangala		Biddel		Hosur	
	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV	Min Voltage	Duration When V<390KV
01-09-16	385	110	393	0	397	0	409	0	392	0	396	0	391	0	390	0	389	35
02-09-16	388	94	393	0	396	0	404	0	399	0	394	0	393	0	393	0	388	79
03-09-16	385	135	396	0	399	0	410	0	401	0	395	0	386	80	389	12	387	48
04-09-16	392	0	397	0	401	0	414	0	400	0	398	0	395	0	397	0	393	0
05-09-16	392	0	393	0	395	0	404	0	400	0	392	0	394	0	397	0	390	0
06-09-16	382	169	389	6	391	0	401	0	396	0	391	0	384	51	386	41	377	135
07-09-16	383	243	387	0	398	0	408	0	404	0	397	0	388	30	389	7	386	175
08-09-16	382	171	388	26	390	0	400	0	394	0	387	73	385	59	386	45	385	170
09-09-16	389	9	390	0	395	0	405	0	398	0	395	0	391	0	394	0	387	52
10-09-16	380	208	389	12	390	0	398	0	395	0	384	160	382	48	384	42	383	291
11-09-16	386	65	402	0	404	0	415	0	408	0	402	0	387	55	390	0	389	19
12-09-16	382	204	374	59	378	14	396	0	380	11	390	0	386	50	386	48	386	177
13-09-16	389	21	397	0	398	0	406	0	403	0	393	0	392	0	394	0	388	84
14-09-16	381	352	398	0	399	0	408	0	405	0	395	0	385	106	386	95	386	289
15-09-16	385	356	396	0	397	0	405	0	403	0	392	0	386	92	389	1	386	339
16-09-16	382	494	394	0	395	0	405	0	400	0	391	0	385	67	387	44	386	234
17-09-16	385	358	400	0	402	0	412	0	407	0	399	0	388	44	390	0	385	85
18-09-16	385	117	398	0	399	0	409	0	403	0	395	0	387	47	389	6	387	91
19-09-16	381	387	389	41	391	0	401	0	395	0	390	0	388	29	387	25	386	155
20-09-16	382	362	383	262	379	97	393	0	390	10	385	241	387	23	387	15	382	415
21-09-16	381	626	382	173	379	19	401	0	388	21	387	39	387	92	386	90	385	321
22-09-16	384	410	387	82	390	0	400	0	393	0	388	38	389	4	390	0	386	361
23-09-16	382	156	384	145	387	50	397	0	391	0	385	64	386	30	387	9	385	135
24-09-16	385	300	383	209	386	51	394	0	389	10	389	11	390	4	391	0	385	296
25-09-16	388	72	390	0	395	0	406	0	397	0	392	0	392	0	393	0	386	100
MIN	380		374		378		393		380		384		382		384		377	
AVERAGE	10-09-16	235	12-09-16	102	12-09-16	46	20-09-16	#DIV/0!	12-09-16	13	10-09-16	89	10-09-16	51	10-09-16	34	06-09-16	178

STATEMENT OF HIGH VOLTAGE PROFILE IN SR FOR THE PERIOD 01.08.2016 TO 31.08.2016*

Date	Vijaywada		N'Sagar		Hyderabad		Goody		Kamoel		Khammam		Vemagiri		Srisailem		Hirur		Guttur		Raichur		Kaiga	
	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV
01-09-16	423	394	424	415	425	455	427	497	428	781	425	609	419	0	431	1398	421	13	414	0	427	316	420	0
02-09-16	422	386	424	362	424	382	427	534	428	838	425	521	418	0	431	1433	421	5	413	0	426	329	418	0
03-09-16	422	321	422	152	422	211	425	458	425	471	423	365	418	0	430	1424	421	5	413	0	425	69	416	0
04-09-16	422	672	422	179	423	134	427	914	426	831	425	704	418	0	431	1440	423	29	415	0	425	304	420	0
05-09-16	423	455	422	207	422	113	427	707	427	753	425	521	419	0	433	1440	424	71	417	0	425	79	424	34
06-09-16	422	355	422	34	420	0	426	424	425	398	422	264	419	0	429	1037	419	0	414	0	424	33	420	0
07-09-16	421	120	419	0	418	0	424	234	423	177	421	3	417	0	425	510	417	0	410	0	422	12	416	0
08-09-16	419	0	418	0	418	0	422	71	421	72	419	0	415	0	427	724	416	0	408	0	421	10	413	0
09-09-16	420	2	418	0	419	0	422	29	422	50	420	0	415	0	427	927	418	0	412	0	420	6	416	0
10-09-16	421	305	421	41	422	96	424	281	424	432	423	245	417	0	428	1062	413	0	413	0	424	12	418	0
11-09-16	423	302	423	144	424	274	425	307	425	583	424	396	418	0	430	1426	421	10	414	0	422	18	419	0
12-09-16	421	246	421	6	423	369	423	250	424	482	423	373	416	0	430	1378	418	0	411	0	423	16	417	0
13-09-16	421	275	422	172	423	391	426	607	427	713	423	375	416	0	431	1440	421	6	416	0	426	363	423	142
14-09-16	422	424	424	382	426	506	428	603	429	732	425	585	418	0	431	1412	419	0	414	0	428	456	419	0
15-09-16	424	522	424	417	426	542	428	604	429	998	426	666	419	0	430	1440	419	0	415	0	428	607	420	0
16-09-16	424	458	425	441	426	486	427	473	428	602	426	634	419	0	430	1432	418	0	415	0	427	357	420	0
17-09-16	423	428	423	303	424	438	426	370	426	559	425	475	418	0	430	1440	418	0	413	0	425	269	418	0
18-09-16	423	504	422	193	423	371	424	383	425	929	424	424	419	0	430	1440	420	0	415	0	426	162	419	0
19-09-16	422	258	421	10	423	209	425	408	426	496	423	263	418	0	430	1400	420	1	415	0	425	161	419	0
20-09-16	422	183	422	36	423	140	426	549	426	608	423	128	418	0	428	1298	420	2	415	0	424	975	419	0
21-09-16	424	615	424	377	425	476	426	512	427	759	425	584	420	0	430	1432	420	10	416	0	425	235	419	0
22-09-16	425	842	423	400	425	475	428	593	428	682	426	698	421	2	430	1373	421	3	415	0	424	286	419	0
23-09-16	425	1188	424	390	426	530	426	585	425	676	428	810	421	78	430	1430	423	61	418	0	424	88	423	18
24-09-16	425	1073	424	348	427	500	426	487	426	620	429	759	422	131	429	1376	421	16	416	0	422	247	420	0
25-09-16	427	1440	424	567	428	561	427	984	426	1218	429	1440	424	1227	430	1386	424	291	419	0	423	425	422	189
MAX	427		425		428		428		429		429		424		433		424		417		428		424	
AVERAGE		490		253		365		475		618		515		360		1300		37			#DNV/OI	233		96

Annexure
VB

STATEMENT OF HIGH VOLTAGE PROFILE IN SR FOR THE PERIOD 01.08.2016 TO 31.08.2016*

Date	Narandla		Chennai		PUGALUR		MALAKARAM		SATTENAPALLY		ALMATTY		MYSORE		HASSAN		MEHBOOB_NAGAR		RAICHUR 765		KURNOOL765		NELLORE765		TVLM765	
	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV	Max Voltage	Duration When V>420KV
01-09-16	425	214	423	254	425	370	433	1440	427	1347	427	280	428	213	428	336	429	1157	807	167	810	339	800	0	815	666
02-09-16	423	177	424	311	423	344	433	1440	427	1322	432	792	425	91	425	149	427	1126	806	163	809	336	800	0	816	460
03-09-16	423	42	420	0	421	203	432	1201	426	1120	425	643	425	65	430	197	426	722	802	7	805	13	794	0	805	63
04-09-16	427	110	421	4	421	7	432	1440	426	1440	430	1440	426	125	427	232	427	1006	804	46	806	283	798	0	812	856
05-09-16	431	280	422	194	421	185	432	1440	427	1367	430	1499	424	67	426	154	429	829	805	11	807	50	797	0	809	1069
06-09-16	426	168	422	172	419	0	430	951	426	705	429	385	420	0	429	155	425	482	802	13	804	96	797	0	812	341
07-09-16	423	28	418	0	417	0	430	662	424	371	425	322	420	0	423	55	423	169	800	0	802	3	793	0	803	203
08-09-16	420	0	416	0	415	0	430	720	423	414	423	221	420	0	422	36	424	202	797	0	799	0	790	0	802	143
09-09-16	423	104	414	0	416	0	430	714	424	409	422	90	420	0	423	111	424	198	797	0	799	0	787	0	801	0
10-09-16	424	141	416	0	415	0	433	1100	425	913	423	457	424	70	425	130	426	996	802	3	804	14	791	0	803	352
11-09-16	425	190	419	0	418	0	433	1440	427	1382	426	1424	423	69	425	165	429	819	799	0	804	26	793	0	807	721
12-09-16	423	134	420	0	419	0	434	1354	425	725	429	451	424	161	424	188	429	707	802	2	803	12	790	0	807	429
13-09-16	431	401	419	0	419	0	434	1149	426	936	426	511	425	235	425	416	432	1061	806	142	808	350	795	0	805	724
14-09-16	426	577	420	0	421	5	436	1116	427	963	427	469	422	59	424	391	433	1141	803	280	811	443	796	0	809	116
15-09-16	427	736	421	58	421	146	436	1440	428	1429	430	632	420	0	422	69	434	1440	809	348	811	466	798	0	813	551
16-09-16	428	693	421	125	419	0	434	1440	427	1416	428	608	419	0	422	22	434	1426	802	31	807	324	797	0	810	388
17-09-16	426	290	421	62	419	0	435	1440	427	1369	427	996	418	0	421	2	431	1420	803	34	806	215	798	0	809	388
18-09-16	424	124	421	3	418	0	435	1440	427	1440	427	1396	421	8	423	52	430	1415	804	49	806	124	798	0	808	572
19-09-16	424	157	422	53	420	0	431	901	427	546	428	382	421	3	423	71	431	888	803	14	807	132	800	0	811	338
20-09-16	425	219	420	0	416	0	431	955	426	860	428	445	420	0	422	38	431	1007	800	0	806	165	797	0	809	319
21-09-16	424	398	421	30	416	0	436	841	428	1438	430	708	422	17	424	150	432	1191	806	57	809	280	800	0	810	489
22-09-16	425	469	422	157	420	0	436	1128	429	1440	426	419	422	3	423	177	432	1333	807	250	810	321	803	91	814	420
23-09-16	427	506	419	0	416	0	434	1440	429	1440	426	385	421	3	424	110	431	1439	803	20	806	38	796	0	805	284
24-09-16	425	492	419	0	415	0	436	1440	429	1440	425	390	419	0	422	31	431	1315	804	24	806	109	798	0	806	295
25-09-16	426	1040	408	0	415	0	442	1440	432	1440	426	1358	427	201	429	353	431	1396	804	39	806	436	801	1	810	1066
MAX	431		424		426		442		432		432		428		430		434		809		811		803		816	
AVERAGE		320		119		180		1203		1107		566		87		152		971		85		199		46		469

Date: 21.07.2016

LIST OF BUS / LINE REACTORS - TO BE COMMISSIONED in SR				
ENTITY	BUS NAME	TYPE	CAPACITY IN MVAR	APPROVAL STATUS
KPTCL	HOODY	BUS		4TH SRPC/22ND SC
	NELAMANGALA	BUS		4TH SRPC/22ND SC
	DAVANAGERE	BUS	125	39TH SC
	TALAGUPPA	BUS	125	39TH SC
PGCIL	VIJAYAWADA	BUS	2x125	20TH SRPC/34TH SC
	N'SAGAR	BUS	125	21ST SRPC/34TH SC
	NARENDRA	BUS	125	21ST SRPC/34TH SC
	HYDERABAD	BUS	125	21ST SRPC
	GOOTY	BUS	125	22ND SRPC/36TH SC
	HASSAN	BUS	125	36TH SC
	KHAMMAN	BUS	125	36TH SC
	KUDGI PG	BUS	125	36TH SC
	TRIVENDRUM	BUS	125	36TH SC
	NELLORE (EXISTING)	BUS	125	36TH SC
	YELAHANKA	BUS	2X63	36TH SC
	NELLORE PS ON NPS GOOTY LINE	LINE	2X63	36/37 TH SC
	KUDGI PG-TUMKUR D/C AT EACH END	LINE	4X63	36TH SC
	CUDDAPAH	BUS	50 TO 125	39TH SC (Existing 50 MVAR reactor to be replaced by 125 MVAR)
	THIRUVALAM 765 KV	BUS	2X240	39TH SC
APTRANSCO	VEMAGIRI	BUS	125	36TH SC
	KARNOOL	BUS	125	36TH SC
	KALPAKKA	BUS	125	36TH SC
	CHITTOR	BUS	125	39TH SC
	VIJAYAWADA	BUS	125	39TH SC
APTRANSCO/ APGENCO	VTPS STAGE IV	BUS	125	39TH SC
TANTRANSCO	ALMATHY	BUS	125	39TH SC
	KAYATHAR	BUS	125	39TH SC
TANTRANSCO /TANGEDCO	METTUR	BUS	125	39TH SC
TSTRANSCO	MAMIDIPALLI	BUS	125	36TH SC
	GAJWEL	BUS	125	36TH SC
	SANKARAPALLI	BUS	125	36TH SC
	MEHBOOB NAGAR	BUS	125	36TH SC
TSTRANSCO / TSGENCO	SRISAILAM LB	BUS	125	39TH SC
NPCIL	KAIGA	BUS	2 X 125	
UPCL	UDUIPI	BUS	2X 125	39TH SC

POWER SYSTEM OPERATION CORPORATION LTD.
(A wholly owned subsidiary company of POWERGRID)
SOUTHERN REGIONAL LOAD DESPATCH CENTRE
29, Race Course Cross Road, Bangalore-560 009



Ref: SRLDC / SRCS / 2016 /

Dated: 09-09-2016

To

1. Chief Engineer (Elec),
SLDC, KPTCL,
Race course Cross Road, Bangalore

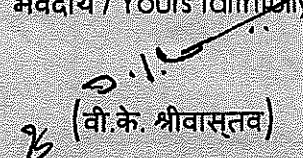
Sub: Notifying violation of protection standard in case of tripping of the Inter regional lines of Voltage class 220kV and above level network of S.R- Reg.

Dear Sir,

This has reference to violation of protection standard in case of tripping of Inter regional lines of voltage class 220kV and above level network of Southern region. The complete details of statistics for the tripping where violation occurred for the period from 1st to 31st August 2016 are attached at **annexure-1**.

धन्यवाद/ Thanking you,

भवदीय / Yours faithfully,


(वी.के. श्रीवास्तव)
महाप्रबंधक/ G.M, SRLDC

Copy to:

1. Member (GO&D), CEA, Sewa Bhawan, R.K.Puram, New Delhi-110003
2. Member Secretary, SRPC, Bangalore
3. Executive Director, NLDC, New Delhi
4. General Manager, WRLDC, Mumbai

Enclosure: As above

Sl. No	Name or transmission element tripped	Owner/ Utility	Date of tripping	Time of tripping	Load / Generation loss	Brief reason	Category as per CEA grid standard	Restoration date	Restoration Time	Fault clearance time > 100 ms for 400 kV and 160 ms for 220kV (Y/N)	FIR furnished (Y/N)	D.R. furnished (Y/N)	E.I. furnished (Y/N)	Other protection issues and non-compliance	Remedial actions
1	220 KV AMBEWADI - PONDA 1	KPTCL/ GOA	02-Aug-16	16:45	Nil	Line tripped due to B-phase to earth fault	—	06-Aug-16	14:22	N	Y	Y	Y	auto-reclose not enabled	
2	221 KV AMBEWADI - PONDA 1	KPTCL/ GOA	15-Aug-16	12:37	Nil	Line tripped due to B-phase to earth fault	—	15-Aug-16	17:52	N	Y	Y	Y	auto-reclose not enabled	
3	222 KV AMBEWADI - PONDA 1	KPTCL/ GOA	19-Aug-16	13:43	Nil	Line tripped due to B-phase to earth fault	—	19-Aug-16	14:02	N	Y	Y	Y	auto-reclose not enabled	

PROLONGED OUTAGE DETAILS AS ON 25-09-16

Ia. MAJOR GENERATING UNITS OUTAGE CONTINUING DURING THE MONTH

SL No.	STATION	UNIT No.	CAPACITY (MW)	CONSTITUENT	OUTAGE DATE	SCHEDULED / EXPECTED REVIVAL DATE	REASON FOR OUTAGE
1	ENNORE TPS	5	110	TANGEDCO	6-Mar-12		UNIT UNDER S/D DUE TO FREQUENT BOILER ISSUES. BOARD OF TANGEDCO HAS APPROVED TO KEEP UNIT UNDER S/D TILL DECOMMISSIONING OF STATION
2	ENNORE TPS	2	60	TANGEDCO	26-Apr-14		CONDENSOR TUBE LEAKAGE
3	KAKATIYA TPS	2	600	TSGENCO	17-Aug-16		STATOR EARTH FAULT
4	TPCIL	2	660	IPP	17-Sep-16		TRIPPED DUE TO COOLING WATER PUMP LEAK
5							
6							

Ib. OUTAGES OF MAJOR TRANSMISSION LINES AND ICT'S AS ON 25-09-16

SL.NO	DESCRIPTION	CONSTITUENT	OUTAGE DATE	SCHEDULED / EXPECTED REVIVAL DATE	REASON FOR OUTAGE
1	UPPER SILERU- BALIMELA	AP-ORISSA	21-Apr-14		COMMERCIAL ISSUES AT ORISSA END
2	400/220 kV ICT-2 RSTPS	NTPC	30-Jun-15		BUCHHOLZ RELAY OPERATED
3	400/220 Kv ICT-2 AT HOODY	KPTCL	02-Jun-16		BUSHING FLASHOVER
4					

Ic. OUTAGES OF REACTORS,BREAKER, FSCs AND HVDC FILTERS AS ON 25-09-16

SL.NO	DESCRIPTION	CONSTITUENT	OUTAGE DATE	SCHEDULED / EXPECTED REVIVAL DATE	REASON FOR OUTAGE
1					

Id. DETAILS OF PROLONGED TECHNICAL DEFICIENCY OF EQUIPMENT AS ON 08-09-16

SL.NO	DESCRIPTION	UNIT No.	CAPACITY (MW)	CONSTITUENT	NOTED DATE	SCHEDULED / EXPECTED REVIVAL DATE	PROBLEM DESCRIPTION

Ii. LIST OF FORCED OUTAGES THAT ARE REVIVED AFTER 08-09-2016

SL No.		STATION	UNIT No.	CAPACITY (MW)	CONSTITUENT	OUTAGE DATE	ACTUAL REVIVAL DATE	REASON FOR OUTAGE
1		NORTH CHENNAI TPS	2	210	TANGEDCO	3-Sep-16	19-Sep-16	FURNACE PRESSURE HIGH
2		TUTUCORIN TPS	5	210	TANGEDCO	9-Sep-16	19-Sep-16	GEN.PROTECTION OPERATED
3								
SL No.		DESCRIPTION	CONSTITUENT	OUTAGE DATE	ACTUAL REVIVAL DATE	REASON FOR OUTAGE		
1								

Annexure -
111

Study Report at
SRPC agenda Annexure-12C

Annexure 1X

पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)
POWER SYSTEM OPERATION CORPORATION LIMITED
(A wholly owned subsidiary of POWERGRID)



पंजीकृत एवं केंद्रीय कार्यालय: बी-09, प्रथम तल, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110 016
(CIN No: U40105DL2009GOI188682)
Registered & Corporate Office: B - 9, 1st Floor, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110013
Website: www.posoco.in, www.nldc.in, Tel: 011 - 26536832, 26524522, Fax: 011 - 26524525, 26536901

संदर्भ संख्या: के/का/पोसोको/2016/ 697

दिनांक: 15.09.2016

सेवा में

The General Manager, SRLDC, Bangalore
The General Manager, WRLDC, Mumbai
Chief Engineer, SLDC, Maharashtra, Mumbai
Chief Engineer, SLDC, Karnataka, Bangalore
Chief Engineer, SLDC, Goa

विषय: Operationalization of 220 kV Chikodi - Kolhapur line

महोदय



220kV Chikodi - Kolhapur line connecting Karnataka and Maharashtra systems had been dormant since 2007. A meeting through video conference was held on 17th June 2014 to discuss the procedure for trial operation of 220 kV Chikodi - Talangade and 220 kV Chikodi - Mudshingi. The meeting was attended by the representatives from NLDC, WRLDC, SRLDC, WRPC, SRPC, Maharashtra-SLDC and Karnataka-SLDC. Subsequent to discussion in the meeting, radial power transfer commenced from Maharashtra to Karnataka through these 220 kV lines since 12th July 2014. Presently, the transaction is settled bilaterally, without appearing in inter-state accounts.

During the meeting held on 17th June 2014 to discuss trial operation of 220 kV Chikodi - Talangade and 220 kV Chikodi - Mudshingi, it was discussed that the radial mode of operation of the line may be started, with a clear road-map for synchronous mode of operation. It was also discussed that in case of radial operation (settled bilaterally without appearing in the inter-state or inter-regional schedules and accounts) the arrangement is sub-optimal. Ideally, physical flows should not be linked to commercial contracts as such an arrangement reduces the available flexibility. It is observed that since 1st Sep 2016, the 220 kV Chikodi-Talangade and 220 kV Chikodi-Mudshingi lines have been switched off and are lying dormant while 220 kV Ambewadi-Ponda and 220 kV Ambewadi-Xeldam continue to be operated in radial mode.

पंजीकृत कार्यालय: बी - 9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016, दूरभाष: 011-26536832, फैक्स: 011-26524525
Registered Office: B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016, Tel: 011-26536832, Fax :011-26524525

Handwritten signature and date 21/9

Hon'ble Commission, in its order dated 28.1.2016, has approved the transmission charges of 220 kV Chikodi-Kolhapur D/C, 220 kV Ambewadi-Ponda and 220 kV Ambewadi-Xeldam lines and the same is being included in PoC charges calculations since Q2 of 2016 - 17. It is worthwhile to mention here that a detail study has been carried out and it has been observed that the Parallel Operation of all these lines along with other inter-regional lines on NEW-SR corridor would increase the reliability of power supply to Goa and Kolhapur areas, improves voltage profile, enhances the transfer capability towards SR marginally and helps in reducing the small signal oscillations on 765 kV Sholapur - Raichur lines due to any tripping in SR etc. The copy of the study report is enclosed.

In view of the above, it is requested that the necessary action may be taken to operate these lines i.e, 220 kV Chikodi - Talangade and 220 kV Chikodi - Mudshingi D/C, 220 kV Ambewadi - Ponda and 220 kV Ambewadi - Xeldam lines in closed loop mode at the earliest so that these transmission assets are effectively utilized.

सादर धन्यवाद

भवदीय

Encl: As Above

बाबा
15/1/16

(के. वी. एस. बाबा)

कार्यकारी निदेशक, एन एल डी सी

Copy To:

1. Member Secretary, SRPC, Bangalore
2. Member Secretary, WRPC, Mumbai
3. Chief Engineer, NPC, New Delhi