

# पावर सिस्टम ऑपरेशन कॉरपोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of POWERGRID)



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एन एल डी सी / परिचालन प्रतिक्रिया/1231

दिनांक: 08<sup>th</sup> January, 2016

सेवा मे,

1. The Member (Power System)  
Central Electricity Authority  
Sewa Bhawan, R.K. Puram,  
New Delhi

2. COO, CTU  
POWERGRID  
'Saudamini', Plot No.2,  
Sector-29, Gurgaon

**विषय: Prioritization of Transmission Systems under implementation to relieve congestion.**

**संदर्भ: NLDC/Operational Feedback/1614 dated 31<sup>st</sup> March, 2015**

महोदय,

This is further to NLDC's communication dated 31<sup>st</sup> March, 2015 on prioritization of transmission system to relieve congestion. Subsequently, a number of power system elements have been commissioned in the grid. During this course, there has been an addition of considerable quantum of generation in different parts of the country and obtained better clarity about many generating stations that are expected to be commissioned in near future.

Under such condition, in order to transmit the power from one part of the country to other, it is important that matching transmission network is also in place. Though transmission systems have been planned and are under execution, some of the network elements are to be accorded higher priority to relieve present and foreseen congestion.

In order to address this, a list of the approved elements in the Inter-State Transmission Systems under different stages of construction has been compiled and attached at **Annex – I** which are essential to facilitate smooth evacuation of power. The list has been segregated into the following sub-groups, namely:

- A. Evacuation of Power from Generation complexes of Chhattisgarh and Odisha
- B. Western - Southern Region
- C. Eastern - Southern Region
- D. Southern Region and S1-S2 corridor
- E. Evacuation of power from Gujarat
- F. Eastern - North Eastern and Eastern-Northern Region Corridors
- G. North-eastern Region
- H. Northern Region
- I. Eastern Region

While, all the corridors mentioned above have priority, 30 nos. of transmission elements have been highlighted which are required on top priority (**Annex - II**). Some of the generating stations which have been commissioned or likely to get commissioned do not have immediate connectivity for evacuation of power. A list of such generators is attached as **Annex-III**.

The prioritisation of transmission elements has been attempted keeping in view the requirement of the system and foreseen congestion in near future.

The above may kindly be considered and taken up at the appropriate forum for the needful action.

This may be considered as Operational Feedback by NLDC under the Section - 4j of the NLDC Rules, 2005.

सादर धन्यवाद,

भवदीय

बाबा

8/1/16

(के. वी. एस. बाबा)

कार्यपालक निदेशक

(एनएलडीसी एवं एनआरएलडीसी), पोसोको

संलग्न: As above

प्रतिलिपि:

1. Secretary, CERC
2. Director (OM), MoP

## Inter-State Transmission Systems already approved and commissioning of which are expected to relieve congestion

S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	How it will Relieve the system/particular line	Latest Status of likely commissioning schedule as per information available at CEA/RPC websites / Remarks
<b>A. Evacuation of Power from Generation complexes of Chattisgarh and Odisha</b>								
<b>A.(i) Within Chattisgarh</b>								
1	765 kV Raigarh (Kotra) pooling station - Champa Pooling station 2nd ckt	Intra Region	Western Region	36th SCM held on 29.08.13	POWERGRID	-		
2	765 kV Champa Pooling station - Dharamjaygarh PS - 2nd ckt	Intra Region	Western Region	36th SCM held on 29.08.13	POWERGRID	-		
<b>A.(ii) Within Odisha</b>								
3	400 kV Talcher- Bramhapur D/C	Intra Region	Eastern Region	SCM of ER on 05.05.07	Talcher Transmission Co. Ltd.	Sep-13		No progress so far.
4	400 kV Bramhapur- Gazuwaka D/C	Inter Region	Southern Region & Eastern Region	SCM of ER on 05.05.07	Talcher Transmission Co. Ltd.	Sep-13	Strengthens NEW Grid-SR inter-connection	No progress so far.
5	400 kV Talcher-Rourkela D/C (Ckt no. 3 & 4) with Quad cond.	Intra Region	Eastern Region	SCM of ER on 05.05.07	Talcher Transmission Co. Ltd.	Sep-13	Relieve Loading of 400kV Talcher-Rourkela D/C	No progress so far.
<b>A.(iii) Strengthening WR-NR Corridor</b>								
6	±800 kV Champa Pooling Station - Kurukshetra HVDC Bipole	Inter Region	WR-NR	32nd SCM of WR on 13.05.11	POWERGRID	2016-17	Will help in evacuation of power from Chattisgarh area directly to NR	Stage-I forest clearance for WR-II portion obtained in Jun'15. Permission to work obtained in Sep'15.
7	765 kV Jabalpur-Orai D/C	Inter Region	Western and Northern Region	31st SCM of NR on 02.01.2013	POWERGRID	-	Provides alternate path to upcoming Champa-Kurukshetra HVDC	Apr-18
8	765 kV Orai-Aligarh D/C	Inter Region	Western and Northern Region	31st SCM of NR on 02.01.2013	POWERGRID	-	Provides alternate path to upcoming Champa-Kurukshetra HVDC	Apr-18. Award Placed in Mar'15. Engg. & survey under progress
9	LLO of Agra-Meerut at Aligarh	Inter Region	Western and Northern Region	31st SCM of NR on 02.01.2013	POWERGRID	-	Provides alternate path to upcoming Champa-Kurukshetra HVDC	Apr-18. Award Placed in Mar'15. Engg. & survey under progress
<b>A.(iv) Within Western Region</b>								
10	400 kV Aurangabad - Boisar line D/C line	Intra-Region	Western Region (Maharashtra)	30th SCM of WR held on 08.07.10	POWERGRID	-	Provides additional connectivity to load centre in Mumbai area	Revised Target is Jun-16. Stage-I Forest clearance (138ha.) received in Aug'15, Severe ROW problem.
11	765 kV Aurangabad (PG) - Padghe (PG) D/C	Intra Region	Western Region	29th SCM of WR on 10.09.09	POWERGRID	Aug-14	Provides additional connectivity to load centre in Mumbai area	Revised Target is Sep-16. Forest clearance awaited.
12	400 kV D/C Vadinar-Amreli	Intra Region	Western Region		GETCO	Jul-13		Revised Target Jun-15. Work in Progress
13	765kV Akola - Aurangabad 2x S/C	Intra-Region	Western Region (Maharashtra)	Tiroda, APL Evacuation	Adani Power Ltd.	Mar'13	Facilitate evacuation from APL, Tiroda and would relieve 400kV Wardha-Akola D/C lines	Charged at 400 kV
14	400 kV D/C Baleshwar-Kudus	Intra Region	Western Region	32nd SCM of WR on 13.05.2011	MSETCL		Provide alternate path to coastal Maharashtra	Revised Target is Mar-16
15	400 kV D/C Kudus - Phadge	Intra Region	Western Region		MSETCL	Aug-14		Revised Target is Jun-16. Commissioning of Kuddus S/S by MSETCL critical. Completion matching with Aurangabad-Padghe line.
16	400 kV D/C Amreli-Kasor	Intra Region	Western Region		GETCO	Jun-13	Strengthen Gujarat network	Revised Target is Mar-16. Severe ROW problem
17	400 kV Essar Mahan-Bilaspur Pooling Station D/C	Intra Region	Western Region			Mar-13	Evacuation from Essar Mahan	Severe ROW problem reported
18	765 kV Raipur pooling station -Rajnandgaon D/C	Intra-region	Western Region	36th SCM held on 29.08.13	POWERGRID	N/A	1. Facilitates power evacuation from IPPs in Chattisgarh 2. strengthens regional network	-
19	765 kV Rajnandgaon-Warora D/C	Intra-region	Western Region	36th SCM held on 29.08.13	POWERGRID	N/A	1. Facilitates power evacuation from IPPs in Chattisgarh 2. strengthens regional network	-
20	400 kV D/C Dhule- Dhule (mah)	Intra Region	Western Region		MSETCL		Will improve connectivity of Maharashtra system with ISTS	Line construction completed by BDTCL, bays to be made ready by MSETCL

S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	How it will Relieve the system/particular line	Latest Status of likely commissioning schedule as per information available at CEA/RPC websites / Remarks
<b>B. Western - Southern Region</b>								
21	HVDC Raigarh (Kotra)-Pugalur Bi-pole	Inter-regional	Western Region and Southern Region	Discussed during 36th SCM of SR held on 4.09.13. Capacity of the link to be decided.	POWERGRID	N/A	For power transfer from IPPs in Chattisgarh to SR region	-
22	765 kV Wardha – Hyderabad D/C	Inter Region	Western Region & Southern Region	36th SCM of WR held on 29.8.13	POWERGRID	May-18	Strengthen NEW-SR connectivity	May-18. Work Under Progress.
<b>C. Eastern - Southern Region</b>								
23	765 kV Angul - Srikakulam D/C	Inter Region	Eastern Region & Southern Region	30th SCM of SR held on 13.04.10	POWERGRID	June'15	Provide alternate path to SR from the eastern side	Revised Target is Aug-16. Stage - I forest clearance awaited (99 Ha.), 1 package under re-tended & awarded in Jun'15
24	765 kV Srikakulam - Vemagiri D/C	Intra Region	Southern Region	33rd SCM of SR held on 30.09.11	POWERGRID under TBCB	Mar-17	Provide alternate path to SR from the eastern side	Aug-16
25	765 kV Vemagiri - Khammam D/C	Intra Region	Eastern Region & Western Region	31st SCM of SR held on 16.11.10. Final order by CERC awaited.	POWERGRID under TBCB	Apr-15	Provide alternate path to SR from the eastern side	Project scrapped. Alternate path Vemagiri-Chilakaluripeta-Cuddapah-Salem to be expedited
26	765 kV Khammam-Hyderabad D/C	Intra Region	Eastern Region & Western Region	31st SCM of SR held on 16.11.10. Final order by CERC awaited.	POWERGRID under TBCB	Apr-15	Provide alternate path to SR from the eastern side	Project scrapped. Alternate path Vemagiri-Chilakaluripeta-Cuddapah-Salem to be expedited
<b>D. Southern Region and S1-S2 corridor</b>								
27	765 kV Kudgi-Madhugiri D/C (to be charged at 400 kV)	Intra Region	S1 Area	34th SCM of SR held on 16.04.12	Kudgi Transmission Ltd	Dec-15	Strengthen S1 area connectivity	Dec-15
28	400KV Madhugiri - Bidadi D/C	Intra Region	S1 Area	34th SCM of SR held on 16.04.12	Kudgi Transmission Ltd	Dec-15	Strengthen S1 area connectivity	Dec-15
29	400KV Madhugiri - Yehlanka D/C	Intra Region	S1 Area	29th SCM of SR on 27.08.2009	POWERGRID	Jun-14	Strengthen S1 area connectivity	Jun-16. Completion uncertain due to severe ROW problem in Karnataka. Critical.
30	400 kV UPCL-Mylatti-Kozhikode	Intra Region	Southern Region	35th SCM of SR on 04.01.2013 for implementation through tariff based competitive bidding (TBCB)	POWERGRID	-	North Kerala Drawl capacity increases and will be having reliable supply	-
31	765KV Madhugiri Pooling Station - Salem Pooling Station S/C	Intra Region	Southern Region	29th SCM of SR on 27.08.2009	POWERGRID	Sep-14	Constraints between S1 & S2 zones will be relieved	Revised Target is Dec-15. Severe ROW being faced in Karnataka.
32	765 kV Tuticorin - Dharmapuri (Salem new) D/C	Intra Region	S2 Area	29th SCM of SR on 27.08.2009	POWERGRID	Sep-14	Will help in evacuation of power from Tuticorin area	Jun-16
33	400 kV New Somanhalli- Salem D/C	Intra Region	Southern Region	30th SCM of SR on 13.04.2010	POWERGRID	Nov-14	Constraints between S1 & S2 zones will be relieved	Revised Target is Dec-15. Severe ROW problem faced in Karnataka end.
34	400 kV Tirunelveli-Muvattupuzha(Cochin) D/C	Intra Region	Southern Region	18th SCM of SR on 05.03.2004	POWERGRID	2007	Kerala Drawl capacity increases	ROW problems
35	400 kV Edamon (KSEB) - Muvattupuzha (PG) D/C	Intra Region	Southern Region		POWERGRID		Constraints between S1 & S2 zones will be relieved	Revised target is Dec-16. Completion uncertain due to severe ROW problem. Work to start after assesment of compensation & payment by stateGovt./KSEB. Revised G.O. with enhanced compensation issued in Jan'15. Recently G.O. issued on 30.07.15 in which compensation to be done on land value, to be finalised by concern DC.
36	400 kV Tirunelveli-Kanarpatty (TN Wind) D/C line	Intra Region	Southern Region	29th SCM of SR on 27.08.2009	TANTRANSCO	2016-17	Facilitate Evacuation of Wind Generation Located in Tirunelveli & Madurai area	Revised Target Sep-15. Work under progress. ROW issue at one location
37	400 kV Kanarpatty-Kayathar	Intra Region	Southern Region	29th SCM of SR on 27.08.2009	TANTRANSCO	-		Works are under progress. ROW issues at 3 locations. Work held up by the contractor
38	400 kV Trichur-Kozhikode D/C	Intra Region	Southern Region	30th SCM of SR held on 13.04.10	POWERGRID	-	North Kerala drawl capacity would be augmented	NA
<b>E. Evacuation of Power from Gujarat</b>								
39	400 kV Mundra-Zerda line-1 D/C	Intra-Region	Western Region	Adani Power, Mundra(Bid-II)	GETCO	May'12	Facilitate Mundra, APL generation evacuation and would relieve 400kV Mundra-Sami-Dehgam D/C lines	Revised target is Jun-16. Severe RoW problem
40	400 kV Mundra-Zerda line-2 D/C	Intra-Region	Western Region	Adani Power, Mundra(Bid-II)	GETCO	May'12		Revised target is Dec-15. Line terminated at 400kV Varsana S/s (2x80.26km) on 31.03.2015 under stop gap arrangement. Severe RoW problems
41	400 kV Vapi (PG) - Navi Mumbai	Intra-Region	Western Region (Gujarat - Maharashtra)	25th SCM of WR held on 30.09.06	POWERGRID	Sep'10	Facilitate evacuation of generation from Gujarat to meet demand in Mumbai and adjoining areas	Revised target is Jun-16. Due to severe ROW portion at Navi-Mumbai end, Line now decided to be terminated at Kudus S/stn. of MSETCL. Contingency arrangement to connect Vapi-Navi Mumbai with Navsari-Boisar line by passing ROW area to form VapiNavsari line (24 Ckm) commissioned in Mar'13.
42	400 kV Vapi-Boisar D/C line	Intra-Region	Western Region (Gujarat - Maharashtra)	WRSSS for Mundra UMPP, Part-B	POWERGRID	-		Severe ROW problem being faced in Maharashtra & DNH on almost all locations. * Completion uncertain.

S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	How it will Relieve the system/particular line	Latest Status of likely commissioning schedule as per information available at CEA/RPC websites / Remarks
<b>F. Eastern - North Eastern and Eastern-Northern Region Corridors</b>								
43	400 kV Rajarhat-Purnea D/C (LILO of one ckt. each at FSTPP and at Gokarna)	Intra Region	Eastern Region	SCM on 28 Dec 2010	POWERGRID	-	Relieve loading of 400 kV Farakka-Malda D/C and will improve ER-NR and ER-NER Transfer Capability	April '16
<b>G. North Eastern Region</b>								
44	400/220 kV , 2x315 MVA ICTs at Bongaigaon (NTPC)	Intra Region	North Eastern Region	SCM of NER on 25.06.2008	NTPC		Decongestion of 400/220 kV , 315 MVA ICT at Bongaigaon and 220 kV Salakati - BTPS D/C	Jan-16
45	400/132 kV, 125 MVA ICT-II at Palatana alongwith 132 kV Bay of Palatana – Surjamaninagar II at Palatana	Intra Region	North Eastern Region	5th SCM of NER on 08.08.2015	OTPC		To fulfill N-1 criteria, Enhancement of reliability of power supply to Tripura, vacuation of Palatana generation and to ensure stable power supply to Bangladesh	June-16 for ICT II at Palatana and Line section completed on June 2012, Bay at Palatana yet to be commenced
46	132 kV Ranganadi - Nirjuli D/C	Intra Region	North Eastern Region	Comprehensive Scheme for Strengthening of Transmission System in NER & Sikkim, 30.10.12	POWERGRID	yet to be accorded	Enhanced drawal capability of Arunachal Pradesh(Capital Area) & Assam(Gohpur Area)	Ranganadi - Nirjuli Ckt-II : Work started. Survey completed. foundation completed. clearance not received 2 nos Forest
47	LILO of 132 kV Ranganadi - Itanagar at Pare HEP	Intra Region	North Eastern Region	N/A	DoP, Arunachal Pradesh		Enhancement of drawl capability of Arunachal Pradesh & Evacuation of Pare HEP Power	
48	132 kV Killing (Byrnihat) - EPIP I (MePTCL)	Intra Region	North Eastern Region	N/A	MePTCL	Dec-13	Enhancement of Drawal capability of Meghalaya	Revised Target is Dec-15. No issues of forest clearance and no court cases. Work held up due to non payment of compensation to the land owners.At the present the assessment is prepared and likely to be cleared within this financial year.
49	400 kV Silchar (PG) - Melriat (PG) [Charged at 132 kV]	Intra Region	North Eastern Region	SCM of NER on 25.06.2008	POWERGRID	Jun-14	Enhancement of drawal capability of Mizoram	Revised target is Jun-16. Major portion of line in forest. severe ROW in vicinity of Aizwl town due to stiff resistance from influential local owner.
50	220/132 kV, 2x50 MVA ICTs at Kukurmara	Intra Region	North Eastern Region	N/A	AEGCL	Dec-13	Enhancement of Drawal capability of Assam	Yet to be completed
51	220 kV Bongaigaon (AEGCL) - Rangia (AEGCL)	Intra Region	North Eastern Region	N/A	AEGCL	Dec-13		Yet to be completed. ROW Problems
52	132 kV Melriat (New) (PG) - Sihmui (Mizoram)	Intra Region	North Eastern Region	N/A	POWERGRID	Mar-14	To fulfill n-1 criteria, Enhancement of drawal capability of Mizoram, decongest 400/132 kV 125 MVA ICT at Palatana	Revised Target is Jun-16. Stage-I forest clearance awaited.package under re-tendering.
53	132 kV Aizwal (PG) - Zemabawk LILO at Melriat	Intra Region	North Eastern Region	N/A	P&E Dept, Mizoram	Dec-13		Revised Target was Jun-16. Package under re-tendering
54	400/220 kV , 1x315 MVA ICT at Balipara	Intra Region	North Eastern Region	SCM of NER on 13.12.2014	POWERGRID	May-17	Increased reliability of operation in NER Grid	
55	400 kV Misa-Silchar D/C	Intra Region	North Eastern Region	4th SCM of NER held on 13.12.2014	Under TBCB		Complete 400 kV loop and provide alternate path towards South Assam, Tripur, Mizoram and Manipur	
56	132/33 kV, 2x50 MVA ICTs at Nirjuli	Intra Region	North Eastern Region	SCM of NER on 13.12.2014	POWERGRID	May-17	Enhancement of Drawal capability of capital area of Arunachal Pradesh	

S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	How it will Relieve the system/particular line	Latest Status of likely commissioning schedule as per information available at CEA/RPC websites / Remarks
<b>H. Northern Region</b>								
57	765 kV S/C Anpara D - Unnao	Intra Region	Northern Region	26th SCM of NR held on 13.10.2008	UPPTCL	Jan-12	Evacuation path for Anpara-D, Unit 1 & 2	Dec-15
58	400 kV Roorkee-Saharanpur D/C (Quad)	Intra Region	Northern Region	27th SCM held of NR on 11.06.2009	POWERGRID	Dec-14	Strenghtens NR network	Revised target I Dec-15. Severe ROW problem in western UP.
59	765 kV S/C Mainpuri - Unnao	Intra Region	Northern Region		UPPTCL		Strenghtens NR / UP network	Feb-16. 3 locations are under hold since long due to land allocated for women PAC camp in line corridor at Mainpuri. Matter has been taken up with DM Mainpuri.
60	765 kV Jaipur (RVPNL) - Bhiwani 2nd Ckt	Intra Region	Northern Region	28th SCM held of NR on 09.03.10	POWERGRID		Alternate path between Gwalior & Bhiwani	Revised Target is Mar-16. ROW problem on 12 nos. location at Bhiwani end
61	765 kV Bareilly-Meerut S/C	Intra Region	Northern Region	29th SCM held of NR on 20.01.11	POWERGRID	Sep-13	Strenghtens NR network	
62	400kV Jalandhar-Amritsar D/C (LILO of 400 kV ParbatiPool-Amritsar D/C Line at Jalandhar S/s)	Intra Region	Northern Region	32nd SCM held on 27.09.13	POWERGRID	NA	Strengten Connectivity of Amritsar with Grid	Jul-17
63	765 kV S/C Hapur-Greater Noida	Intra Region	Northern Region		WUPPTCL		Relieve high loading in western UP	Revised target is Dec-15
64	400 kV Rosa- Shahjahanpur D/C	Intra Region	Northern Region	29th SCM held on 20.01.11	UPPTCL	NA	Evacuation from Rosa	
65	400 kV D/C Mohindergarh - Bhiwani	Intra Region	Northern Region	33rd SCM of NR held on 23.12.2013	POWERGRID	NA	Strenghtens connectivity from mahindergarh HVDC	Earlier planned to be under TBCB. Given to POWERGRID on nomination basis in Nov-15
66	400 kV Malerkotia-Amritsar D/C	Intra Region	Northern Region	32nd SCM held on 27.09.13			Strengten Connectivity of Amritsar with Grid	Sep-16.
<b>I. Eastern Region</b>								
67	400 kV D/C Raghunathpur TPS -Ranchi (PG)	Intra Region	Eastern Region	SCM for ER held on 05-05-07	DVC	Aug-10	Evacuation from Raghunathpur TPS	Slow progress due to non-availability of working gang due to fund crunch of Contractor (M/s Jyoti Structures). Work resumed in Sep 2015 for the balance portion.

## Transmission lines/ ICTS required on priority ( 30 Nos)

S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	How it will Relieve the system/particular line	Latest Status of likely commissioning schedule as per information available at CEA/RPC websites / Remarks
1	HVDC Raigarh (Kotra)-Pugalur Bi-pole	Inter-regional	Western Region and Southern Region	Discussed during 36th SCM of SR held on 4.09.13. Capacity of the link to be decided.	POWERGRID	N/A	For power transfer from IPPs in Chattisgarh to SR region	-
2	765 kV Wardha – Hyderabad D/C	Inter Region	Western Region & Southern Region	36th SCM of WR held on 29.8.13	POWERGRID	May-18	Strengthen NEW-SR connectivity	May-18. Work Under Progress.
3	400KV Dharmapuri (Salem New) - Somanahalli D/C	Intra Region	S1-S2	37th SCM of SR held on 31.07.14	POWERGRID	Aug-14	Strengthen S1-S2 connectivity	Feb-16. Severe ROW problem faced in Karnataka. Critical.
4	765 KV Madhugiri– Dharmapuri D/C	Intra Region	S1-S2	37th SCM of SR held on 31.07.14	POWERGRID	Dec-15	Strengthen S1-S2 connectivity	Mar-16. Work under progress.
5	765 kV Kudgi-Madhugiri D/C (to be charged at 400 kV)	Intra Region	S1 Area	34th SCM of SR held on 16.04.12	Kudgi Transmission Ltd	Dec-15	Ease of dispersal of power received from WR	Dec-15
6	400KV Madhugiri - Bidadi D/C	Intra Region	S1 Area	34th SCM of SR held on 16.04.12	Kudgi Transmission Ltd	Dec-15	Ease of dispersal of power received from WR	Dec-15
7	400KV Madhugiri - Yehanka D/C	Intra Region	S1 Area	29th SCM of SR on 27.08.2009	POWERGRID	Jun-14	Ease of dispersal of power received from WR	Jun-16. Completion uncertain due to severe ROW problem in Karnataka. Critical.
8	765 kV Tuticorin - Dharmapuri (Salem new) D/C	Intra Region	S2 Area	29th SCM of SR on 27.08.2009	POWERGRID	Sep-14	Will help in evacuation of power from Tuticorin area	Jun-16
9	±800 kV Champa Pooling Station - Kurukshetra HVDC Bipole	Inter Region	WR-NR	32nd SCM of WR on 13.05.11	POWERGRID	2016-17	Will help in evacuation of power from Chattisgarh area directly to NR	Stage-I forest clearance for WR-II portion obtained in Jun'15. Permission to work obtained in Sep'15.
10	765 kV Jabalpur-Orai D/C	Inter Region	Western and Northern Region	31st SCM of NR on 02.01.2013	POWERGRID	-	Provides alternate path to upcoming Champa-Kurukshetra HVDC	Apr-18
11	765 kV Orai-Aligarh D/C	Inter Region	Western and Northern Region	31st SCM of NR on 02.01.2013	POWERGRID	-	Provides alternate path to upcoming Champa-Kurukshetra HVDC	Apr-18. Award Placed in Mar'15. Engg. & survey under progress
12	LILO of Agra-Meerut at Aligarh	Inter Region	Western and Northern Region	31st SCM of NR on 02.01.2013	POWERGRID	-	Provides alternate path to upcoming Champa-Kurukshetra HVDC	Apr-18. Award Placed in Mar'15. Engg. & survey under progress
13	400 kV Aurangabad - Boisar line D/C line	Intra-Region	Western Region (Maharashtra)	30th SCM of WR held on 08.07.10	POWERGRID	Jul-14	Provides additional connectivity to load centre in Mumbai area	Revised Target is Jun-16. Stage-I Forest clearance (138ha.) received in Aug'15, Severe ROW problem.
14	765 kV Aurangabad (PG) - Padghe (PG) D/C	Intra Region	Western Region	29th SCM of WR on 10.09.09	POWERGRID	Aug-14	Provides additional connectivity to load centre in Mumbai area	Revised Target is Sep-16. Forest clearance awaited.
15	765kV Akola - Aurangabad 2x S/C	Intra-Region	Western Region (Maharashtra)	Tiroda, APL Evacuation	Adani Power Ltd.	Mar'13	Facilitate evacuation from APL, Tiroda and would relieve 400kV Wardha-Akola D/C lines	Charged at 400 kV
16	400 kV D/C Dhule- Dhule (Mah)	Intra Region	Western Region		MSETCL		Will improve connectivity of Maharashtra system with ISTS	Line construction completed by BDTCL, bays to be made ready by MSETCL
17	400 kV Rajarhat-Purnea D/C (LILO of one ckt. each at FSTPP and at Gokarna)	Intra Region	Eastern Region	SCM on 28 Dec 2010	POWERGRID	-	Relieve loading of 400 kV Farakka-Malda D/C and will improve ER-NR and ER-NER Transfer Capability	April'16
18	765 kV Angul - Srikakulam D/C	Inter Region	Eastern Region & Southern Region	30th SCM of SR held on 13.04.10	POWERGRID	June'15	Provide alternate path to SR from the eastern side	Revised Target is Aug-16. Stage - I forest clearance awaited (99 Ha.), 1 package under re-tended & awarded in Jun'15
19	765 kV Srikakulam - Vemagiri D/C	Intra Region	Southern Region	33rd SCM of SR held on 30.09.11	POWERGRID under TBCB	Mar-17	Provide alternate path to SR from the eastern side	Aug-16

S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	How it will Relieve the system/particular line	Latest Status of likely commissioning schedule as per information available at CEA/RPC websites / Remarks
20	400 kV Mundra-Zerda line-1 D/C	Intra-Region	Western Region	Adani Power, Mundra(Bid-II)	GETCO	May'12	Facilitate Mundra, APL generation evacuation and would relieve 400kV Mundra-Sami-Dehgam D/C lines	Revised target is Jun-16. Severe RoW problem
21	400 kV Mundra-Zerda line-2 D/C	Intra-Region	Western Region	Adani Power, Mundra(Bid-II)	GETCO	May'12		Revised target is Dec-15. Line terminated at 400kV Varsana S/s (2x80.26kM) on 31.03.2015 under stop gap arrangement. Severe RoW problems
22	400 kV D/C Bableshtar-Kudus	Intra Region	Western Region	32nd SCM of WR on 13.05.2011	MSETCL			Revised Target is Mar-16
23	400 kV Trichur-Kozhikode D/C	Intra Region	Southern Region	30th SCM of SR held on 13.04.10	POWERGRID	-	North Kerala drawl capacity would be augmented	NA
24	400/220 kV , 2x315 MVA ICTs at Bongaigaon (NTPC)	Intra Region	North Eastern Region	SCM of NER on 25.06.2008	NTPC		Strenghtens 220 kV connectivity in NER	
25	400 kV Misa-Silchar D/C	Intra Region	North Eastern Region	4th SCM of NER held on 13.12.2014	Under TBCB		Complete 400 kV loop and provide alternate path towards South Assam, Tripur, Mizoram and Manipur	
26	765 kV S/C Anpara D - Unnao	Intra Region	Northern Region	26th SCM of NR held on 13.10.2008	UPPTCL	Jan-12	Evacuation path for Anpara-D, Unit 1 & 2	Dec-15
27	765 kV Jaipur (RVPNL) - Bhiwani 2nd Ckt	Intra Region	Northern Region	28th SCM held of NR on 09.03.10	POWERGRID		Alternate path between Gwalior & Bhiwani	Revised Target is Mar-16. ROW problem on 12 nos. location at Bhiwani end
28	400 kV D/C Mohindergarh - Bhiwani	Intra Region	Northern Region	33rd SCM of NR held on 23.12.2013	POWERGRID	NA	Strenghtens connectivity from mahindergarh HVDC	Earlier planned to be under TBCB. Given to POWERGRID on nomination basis in Nov-15
29	400 kV Talcher- Berhampur D/C	Intra Region	Eastern Region	SCM of ER on 05.05.07	Talcher Transmission Co. Ltd.	Sep-13	Strenghtens NEW Grid-SR inter-connection	No progress so far.
30	400 kV Berhampur- Gazuwaka D/C	Inter Region	Southern Region & Eastern Region	SCM of ER on 05.05.07	Talcher Transmission Co. Ltd.	Sep-13	Strenghtens NEW Grid-SR inter-connection	No progress so far.

## Generating stations facing / likely to face constraints in avacuation

S.No	Name of the Project	State	Ownership	Capacity (in MW)	Total Capacity (MW)	Associated Transmission Lines	Interim Arrangement	Remarks	Latest Status as per information available at CEA/RPC websites
1	Vandana Vidyut Ltd	Korba Distt., Chattisgarh	M/s Vandana Vidyut Ltd	540 MW	540	Permaenaent connectivity at Daramjayagarh PS through dedicated lines by developer (Not yet completed)	LILO of Korba-Birsigpur ckt 2		Unit-1 of 135 MW commissioned in 12/13. Plant is not in operation for last few months
2	K S K Mahanadi Power Company Limited	Nariyara, dist. Janjgir-Champa, Chhattisgarh	K S K Mahanadi Power Company Limited	3600 MW(6x600 MW)	3600	Permaenaent connectivity at Champa PS through dedicated lines by developer (Not yet completed)	LILO of Raipur-Raigarh ckt 3&4		1st unit of 600 MW commissioned in 08/13 2nd unit of 600 MW commissioned in 08/14
3	Korba West Power Co.Ltd.	Raigarh (Chhattisgarh)	Avantha Power & Infrastructure Limited	2 X 600 MW	1200	Permaenaent connectivity at Kotra PS through dedicated lines by developer (Not yet completed)	LILO of Raipur-Raigarh ckt 1		1st unit commissioned
4	Balco	Chhattisgarh	Vedanta	4*300MW+2*62.5MW	1325	Permaenaent connectivity at Daramjayagarh PS through dedicated lines by developer	LILO of Korba-Birsingpur ckt 1		2 units of 300 MW commissioned
5	ESSAR Mahan MP Power Ltd	MP	ESSAR Power Ltd	2*600MW	1200	Permaenaent connectivity at Bilaspur Pooling station through dedicated lines by developer (Not yet completed)	LILO of Vindhayachal-Korba ckt 1		1st unit commissioned: Feb'13
6	Coastal Energen	Tamilnadu	Coal and oil Group	2*600MW	1200	Permanent connectivity at tuticorin Pooling staation	LILO of Madurai-Tuticorin		1st Unit commissioned: Dec'14
7	Rosa TPP Extn Ph-II	UP	Reliance	2*300 MW	600	permanent connectivity at Shahjahanpur and Dohna (Not Yet Completed)	LILO of Lucknow-Bareilly		
8	IEPL	Maharashtra	IEPL	2*270 MW	540	LILO of 400 kV Koradi-II-Wardha at IEPL	LILO of one circuit of 400 kV Mauda-Wardha at IEPL		The progress of Koradi-Wardha line is slow. Forest clearance awaited. LILO of 400 kV Mauda-Wardha (PG) Commissioned in NOV'12
9	IND Barath	Odisha	Ind Barath Power Energy (Utkal) Ltd.	2*350 MW	700	Permaenaent connectivity at Jharsuguda Pooling station through dedicated lines by developer (Not yet completed)	LILO of Rourkela-Raigarh.	Outages on the LILO portion leads to outage of the inter-regional link	
10	Sterlite	Odisha	Sterlite	4*600 MW	2400	Permanent connectivity at Jharsuguda Pooling station through dedicated lines by developer (not yet developed)	LILO of 400 kV Rourkela - Raigarh	Outages on the LILO portion leads to outage of the inter-regional link	
11	Tiroda APL	Maharashtra	Adani Power	3x660 (ph-1) 2x660 (ph-2)	3300	765 kV Tiroda-Koradi-Akola-Aurangabad ckt.1 & 2, 400 kV Tiroda-Warora D/C, 400 kV Warora- Chandrapur D/C	765kV Akola-Aurangabad 1st ckt is charged at 400 kV and 2nd ckt is not commissioned yet.	Over loading of 400 kV Bableswhar-Padghe D/C	
12	Mundra APL	Gujarat	Adani Power	4x330 (St-1), 2x660 (St-2), 3x660 (St-3)	4620	400 kV APL-Sami-Dehgam D/C 400 kV APL-Hadala S/C 400 kV APL-Versana D/C 400 kV APL-Zerda 2xD/C 220 kV lines to Gujarat system	400 kV APL-Zerda 2xD/C yet to be commissioned	N-1 criteria not satisfied	