

पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of POWERGRID)



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Dated: 19th March, 2013

NLDC/Operational Feedback/

To

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

Subject: Priority of Transmission Systems under implementation to relieve congestion

Dear Sir,

It has been observed that congestion is being faced in some of the corridors. With a large quantum of capacity being added in certain pockets, it is anticipated that in case there is a mismatch in the commissioning of the corresponding transmission system for evacuation, congestion may be faced in certain inter-regional and/or intra-regional transmission corridors. In order to address the issue, a list of the elements (generation and transmission) which are critical in terms of likely congestion has been prepared and segregated into the following four categories:

- Inter-State Transmission Systems already approved and commissioning needs to be prioritised to relieve congestion (Annex – I)
- Intra-State Generating Stations already commissioned and leading to constraints in Inter-state transmission system (ISTS) due to delay in commissioning of associated intra-state transmission system (Annex – II)
- Congestion experienced in Inter-regional corridors due to delay in Commissioning of Generating Stations (Annex – III)
- New generation expected in Chattisgarh and adjoining areas without adequate transmission systems for evacuation (Annex – IV)

The last column in all the lists mentions the corridors in which the congestion would be relieved by taking necessary steps in respect of the likely elements indicated in each of the above lists. The above may kindly be considered and taken up at the appropriate forum for the needful.

This may be considered as Operational Feedback by NLDC under the NLDC Rules, 2005.

Thanking you,

Yours faithfully,

Amani
19.3.13

(A.MANI)
GM, NLDC

Copy to: Secretary, CERC

Inter-State Transmission Systems already approved and commissioning needs to be prioritised to relieve congestion								
S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	Latest Status as per CEA/RPC	How it will Relieve the system/particular line
A. Eastern - North Eastern and Eastern-Northern Region Corridor								
1	400 kV Purnea-Biharsariff D/C(Quad) (Part of Pallatana transmission system)	Intra Region	Eastern Region	21st SCM of NR on 03.11.06	Sterlite Technology Ltd. (Tariff Based Bidding)	March-2013 (as per CEA status report 28.02.2013)	436 ckm strung out of total 464 ckm (as per CEA status report 28.02.2013). There is agitation on Ganga river crossing 7 nos. pile foundation. Aviation clearance awaited(As per 35th SCM on Power System Planning in Western Region held on 3rd January, 2013)	Relieve loading of 400 kV Farakka-Malda D/C and will improve ER-NR and ER-NER TTC during winter
2	400 kV Rajarhat-Purnea D/C (One LILoed at FSTPP and another at Gokarno)	Intra Region	Eastern Region	SCM on 28 Dec 2010	POWERGRID	-	-	
B. Evacuation of Power from Generation complex of Chattisgarh and Orissa								
3	765 kV Raipur Pooling Station - Wardha D/C line	Intra Region	Western Region	29th SCM of WR on 10.09.09	POWERGRID	Dec'13/Jan'15	Total locations-927,tower erected228, stringing completed 25 ckm	Strengthen Raipur-Wardha corridor for IPP's in chattisgarh
4	765 kV Wardha –Aurangabad (PG)D/C	Intra Region	Western Region	29th SCM of WR on 10.09.09	POWERGRID	Jul-14	Stringing commenced from Feb'13.	Would relieve loading of 400kV Wardha-Akola-Aurangabad D/C lines
5	766 kV Aurangabad (PG) - Padghe (PG) D/C	Intra Region	Western Region	29th SCM of WR on 10.09.09	POWERGRID	Aug-14	-	
6	765 Kv Angul Pooling Station - Jharsuguda Pooling Station line-I & II	Intra Region	Eastern Region	27th SCM of NR on 30.05.09, 29th SCM of WR on 10.09.09 SCM dt 08.11.08 of ER	POWERGRID	Sep'13 / June'13	27 ckm strung out of total 244ckm for line-I and Stringing commenced from Feb'13 for line-II (as per CEA status report 28.02.2013). Forest clearance awaited.	Would facilitate evacuation of power from generation complex of Orissa & Chattisgarh to load centre
7	765 Kv Jharsuguda Pooling Station- Dharamjaygarh D/C line.	Inter Region	Eastern Region & Western Region	27th SCM of NR on 30.05.09, 29th SCM of WR on 10.09.09 SCM of ER on 14.09.09	POWERGRID	Dec'13	Realignment of a portion of line required due to coal area of Maha Tamil coal fields.	
8	765 Kv Dharamjaygarh - Jabalpur Pooling Station D/C line	Intra Region	Western Region	29th SCM of WR on 10.09.09	POWERGRID	Dec-13	Forest clearance critical	
9	765 Kv Dhramjaygarh - Jabalpur (JTCL) D/C line	Intra Region	Western Region	29th SCM of WR held on 10.09.09	Sterlite Grid Ltd.	Mar-14	1. Commencement of commit year 31/03/2014 2. Excise Duty Increased 12.36% from 17/03/2012 3. Designing 85% completed & field work under progress. 4. Supply 10% complete. 5. Section 164 is pending from MOP due to progress is hampered from past 8	

								Annexure-1(2 of 4)
S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	Latest Status as per CEA/RPC	How it will Relieve the system/particular line
10	765 Kv Jabalpur - Bina (JTCL)	Intra Region	Western Region	29th SCM of WR on 10.09.09	Sterlite Grid Ltd.	Mar-14	Commencement of commit year 31/03/2014 .Excise Duty Increased 12.36% from 17/03/2012 .Designing 100% completed and construction work under progress. .Supply 15% complete. .Section 164 is pending from MOP due to progress is hampered from past 8 months	Would facilitate evacuation of power from generation complex of Orissa & Chattisgarh to load centre
11	765 Kv Bina - Gwalior line (3rd Ckt) S/C	Intra Region	Western Region	29th SCM of WR on 10.09.09	POWERGRID	Mar-14	-	
12	765 kv Gwalior - Jaipur line (2nd Ckt) S/C	Inter Region	Western Region & Northern Region	29th SCM of WR on 10.09.09	POWERGRID	Mar-14	Involves Wildlife Sanctuary, Clearance awaited.	
13	765 Kv Jabalpur - Bhopal (BDTCL) S/C	Intra Region	Western Region	29th SCM of WR on 10.09.09	Sterlite Grid Ltd.	Mar'14	Commencement of commit year 31/03/2014 Excise Duty Increased 12.36% from 17/03/2012. Supply 40% completed. Section 164 is pending from MOP due to	
14	765 Kv Bhopal - Indore (BDTCL) S/C	Intra Region	Western Region	29th SCM of WR on 10.09.09	Sterlite Grid Ltd.	Mar'14	Commencement of commit year 31/03/2014. Excise Duty Increased 12.36% from 17/03/2012. Supply 35% completed. Section 164 is pending from MOP due to progress is hampered from past 8 months	
C. Eastern - Southern Region, Western- Southern Region and S1-S2 corridor								
15	400 kv Talcher-Rourkela D/C (Ckt no. 3 & 4) Quad line	Intra Region	Eastern Region	SCM of ER on 05.05.07	Talcher Transmission Co. Ltd.	Sep-13	Matter in CERC for Advancement of date of completion. 1st hearing -08.09.2011 15th hearing-30.8.2012. CERC order reserved (As per 35th meeting of the SCM on Power System Planning in Western Region held on 3rd January, 2013)	Relieve Loading of 400kv Talcher-Rourkela D/C and will improve ER-SR TTC, WR-ER import TTC will also be improved.
16	400kv Talcher- Behrampur-Gazuwaka D/C line	Inter Region	Southern Region & Eastern Region	SCM of ER on 05.05.07	Talcher Transmission Co. Ltd.	Sep-13	Matter in CERC for Advancement of date of completion. 1st hearing -08.09.2011 15th hearing-30.8.2012. CERC order reserved (As per 35th meeting of the SCM on Power System Planning in Western Region held on 3rd January, 2013)	NEW Grid-SR Constraint on ER side will be relieved
17	400 kv IBTPS-Meramandali D/C with LILO at Lapanga	Intra Region	Eastern Region	SCM of ER on 28.12.10	OPTCL	Jun-13	Work in progress	Relieve Loading of 220kv Budhipadar-Tarkera D/C & 400kv Talcher-Rourkela D/C, when WR injects to ER and hence improve WR-ER import TTC and ER-SR TTC

Annexure-1(3 of 4)								
S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	Latest Status as per CEA/RPC	How it will Relieve the system/particular line
18	400 kV Vijayawada-Nellore D/C line	Intra Region	Southern Region	32nd SCM of SR on 08th June 2011 17th SRPC meeting on 12 August 2011	POWERGRID	Nov-14	Nov-14	NEW Grid-SR Constraint on SR side will be relieved
19	400 kV Nellore-Thiruvalem D/C Quad line	Intra Region	Southern Region	32nd SCM of SR on 08th June 2011 17th SRPC meeting on 12 August 2011	POWERGRID	Nov-14	Nov-14	S1-S2 Constraint will be relieved
20	400 kV New Somanhalli- Salem line D/C line	Intra Region	Southern Region	30th SCM of SR on 13.04.2010	POWERGRID	Nov-14	Nov-14	S1-S2 Constraint will be relieved
21	400 Kv Thiruvalem-Chittor D/C line	Intra Region	Southern Region	28th SCM of SR on 15.06.09	POWERGRID	-	May-14	S1-S2 Constraint will be relieved
22	400kV Mysore-Kozhikode DC line	Intra Region	SR	16th SCM of SR held on 20.01.03	POWERGRID	Nov-12	ROW issue	S1-S2 Constraint will be relieved
23	400kV Trichur-Kozhikode DC line	Intra Region	SR	30th SCM of SR held on 13.04.10	POWERGRID	-	To be taken up after Mysore-Kozhikode	North Kerala drawl capacity would be augmented
24	765kV Raichur-Kurnool(lind ckt)-S/C line	Intra Region	SR	24th SCM on 18.06.07 5th SRPC meeting held on 25.08.2007	POWERGRID	Aug-14	AUG'14	Enhancing the drawal capability of North Kerala
25	765 kV Kurnool-Tiruvalem D/C line	Intra Region	Southern Region	32nd Meeting of the Standing Committee held on 08th June 2011 & 17th SRPC meeting held on 12 August 2011	PowerGrid	Dec-14	May-14	S1-S2 Constraint will be relieved
D. Western Region								
26	765kV Tiroda-Akola-Aurangabad D/C	Intra-Region	Western Region (Maharashtra)	Tiroda, APL Evacuation	Adani	Mar'13	Dec'13	Facilitate APL,Tiroda Evacuation and would relieve 400kV Wardha-Akola D/C lines
27	400 kV Parli(PG)-Pune D/C	Intra Region	Western Region (Maharashtra)	WRSSS-II(Set-B)	WRTML (Reliance)	Nov'12	Mar'13	Relieve loading on 400kV Parli-Lonikhand D/C
28	765kV Satna-Gwalior Line S/C	Intra Region	Western Region (MP)	29th SCM of WR on 10.09.09	POWERGRID	Nov'12	June'13 (Completion likely delay due to delay in forest clearance)	Facilitate Vindhychal -IV and Rihand-III generation evacuation

								Annexure-1(4 of 4)
S No.	Name of the Transmission elements	Inter/ Intra Region	Name of the Region(s)	Approval Reference	Executing Agency	Approved Timeline	Latest Status as per CEA/RPC	How it will Relieve the system/particular line
E. Evacuation of Power from Gujarat								
29	400 kV Mundra-Zerda line-1 D/C	Intra-Region	Western Region	Adani Power, Mundra(Bid-II)	GETCO	May'12	Revised target is June'13	Facilitate Mundra,APL generation evacuation and would relieve 400kV Mundra-Sami-Dehgam D/C lines
30	400 kV Mundra-Zerda line-2 D/C	Intra-Region	Western Region	Adani Power, Mundra(Bid-II)	GETCO	May'12	412 ckm strung out of total 664 ckm (as per CEA status report 28.02.2013). Revised target is Mar'13	
31	400 kV Vapi-Boisar D/C line	Intra-Region	Western Region (Gujarat - Maharashtra)	WRSSS for Mundra UMPP, Part-B	POWERGRID	-	Mar'13 (Severe ROW problem being faced in Maharashtra & DNH on almost all locations. * Completion uncertain.) Original plan was 400 kV Navsari-Boisar D/C line, out of which 400 kV Navsari-Vapi has been completed	Facilitate evacuation of generation from Gujarat to meet demand in Mumbai and adjoining areas
32	400 kV Vapi (PG) - Navi Mumbai	Intra-Region	Western Region (Gujarat - Maharashtra)	25th SCM of WR held on 30.9.2006 /WRSS-V	POWERGRID	Sep'10	Mar'13 (Severe ROW problem being faced in Maharashtra & DNH on almost all locations.Completion Uncertain)	
F. North Eastern Region								
33	400 kV Silchar - Bongaigaon D/C (LILO at Kukurmara & Killing)	Intra Region	North Eastern Region	SCM of NER on 25.06.2008	NETC & LILO portion by AEGCL & MePTCL respectively	Nov-11 (LILO at Kukurmara - Oct-13)	Jun-13 (LILO at Kukurmara - Oct-13). Section from Silchar to Killing of 400 kV Silchar-Bongaigaon II with LILO at Killing (Silchar portion) commissioned on 26.02.13	Facilitate full evacuation of 2 Modules Palatana Power
34	400 kV Silchar (PG) - Imphal (PG) D/C [Charged at 132 kV]	Intra Region	North Eastern Region	SCM of NER on 25.06.2008	POWERGRID	Dec-12	Jun-13	Facilitate downstream evacuation of Palatana power from 400 kV Silchar (PG). Enhanced drawal capability of Manipur
35	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	Not available	Enhanced drawal capability of Arunachal Pradesh(Capital Area) & Assam(Gohpur Area)

Intra-State Generating Stations already commissioned and leading to constraints in Inter-state transmission system (ISTS) due to delay in commissioning of associated intra-state transmission system

Sl. No.	Station	Final Capacity (MW)	Capacity Commissioned (MW)	Control area	Associated transmission system	Associated transmission system yet to be commissioned	Interim arrangement	Remarks
A. <u>Western Region</u>								
1	IEPL	2x270	2x270	Maharashtra	LILO of 400 kV Koradi-II-Wardha at IEPL	LILO of 400 kV Koradi-II-Wardha at IEPL	LILO of 400 kV Mauda-Wardha (PG) at IEPL	Over loading of 400 kV Wardha-Parli D/C and 400 kV Wardha-Akola-Aurangabad D/C
2	Tiroda APL	3x660 (ph-1) 2x660 (ph-2)	2x660	Maharashtra	765 kV Tiroda-Koradi-Akola-Aurangabad ckt.1 & 2 400 kV Tiroda-Warora S/C 400 kV Tiroda-Warora D/C 400 kV Warora Chandrapur D/C	765 kV Tiroda-Koradi-Akola-Aurangabad ckt.1 & 2 400 kV Warora-Chandrapur D/C	400 kV Tiroda-Warora-Wardha (PG) D/C line	
3	APL, Mundra	4x330 (St-1), 2x660 (St-2), 3x660 (St-3)	4x330 (St-1), 2x660 (St-2), 3x660 (St-3)	Gujarat	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	-	Full generation of Adani power can not be evacuated due to overloading of GETCO Transmission system and thereby restriction on the flow of WR-NR corridor

Sl. No.	Station	Final Capacity (MW)	Capacity Commissioned (MW)	Control area	Associated transmission system	Associated transmission system yet to be commissioned	Interim arrangement	Remarks
B. Southern Region								
4	Vemagiri (GMR)	370	370	AP	400 kV Vemagiri-Vijaywada D/C (PG)	400 kV SS at Narasaraopet, Termination of 2 ckts of Vemagiri-Nunna 400 kV at Narasaraopet and Narasaraopet-VTS-Suryapet-Malkaram 400 kV D/C line(Which is now terminated at VTS without LILO at Suryapet) and LILO of VTS-SSLM at Narasaraopet.	400 kV VTS-Malkaram line planned for evacuating part of the generation was commissioned in Feb 2013 Bypassing of Narasaraopet S/S	Restriction in import of ER-SR corridor due to Generation in Vemagiri complex. causing overloading of 400 kV Vijayawada-Nellore D/C
	Jegurupadu Ext.	220	220		400 kV Vemagira-Vijaywada D/C (AP)			
	Konaseema	445	445		400 kV Vijaywada-Nellore			
	Gauthami	464	464		400 kV SS at Narasaraopet, termination of 2 ckts of Vemagiri-Nunna			
	GMR (BRG)	237	237		400 kV at Narasaraopet and Narsaraopet-VTS-Suryapet-Malkaram 400 kV D/C line(Which is now terminated at VTS without LILO at Suryapet) and LILO of VTS-SSLM at Narasaraopet.			
5	<u>Bhoopalapalli</u>	500	500	AP	400 kV Bhoopalpalli-Gajwel D/C 400 kV Bhoopalapalli-Warangal D/C	400 kV Bhoopalpalli-Gajwel D/C	-	
6	North Chennai Exp.	2x600	1x600	TN	400 kV NCTPS-SV Chatram and 400 kV Almathy-Thiruvelam 400 kV North Chennai-Vallur 400 kV North Chennai-Almathy	400 kV NCTPS-SV Chatram and 400 kV Almathy-Thiruvelam	-	Restriction in S1-S2 corridor causing overloading of 400 kV Vijayawada-Nellore D/C

Congestion experienced in Inter-regional corridors due to delay in Commissioning of Generating Stations							
S.No	Name of the Project	State	Ownership	Capacity (in MW)	Latest Status	Associated Transmission Lines	How it will Relieve the system
A. Eastern and North Eastern Region							
1	Barh Stg I & II	Bihar	NTPC	3X660 + 2X660 MW	Not available	(i) Barh-Gorakhpur 400kV D/C(Quad) (ii) Barh-Balia 400kV D/C(Quad) LLO at Patna (iii) 2500MW Balia-Bhiwadi HVDC Bipole	Relieve loading of 400 kV Farakka-Malda D/C and will improve ER-NER TTC
2	Tripura CCPP (Palatana)	Tripura	OTPC (JV of ONGC, Tripura State and IL&FS)	2* 363.3 MW	Commissioning by 03.01.13/June'13 (No generation since Feb'13)	1. 400 kV Pallatana- Silchar D/C line with twin Lapwing conductor 2. 400 kV Silchar-Bongaigaon D/C line with twin Lapwing conductor 3. New 2x200 MVA 400/132 kV substation at Silchar (Assam) 4.Pallatana- Surajmani Nagar 400 kV DC charges at 132 kV	Generation Availability at Tripura CCPP will help reduce the congestion in import of North-Eastern region corridor as well as North-South corridor within North-Eastern region
3	Bongaigaon TPP expansion project	Assam	NTPC	3x250MW	Completion Schedule: December 2013 onwards	Connectivity to Bongaigon Powergrid substation	Reduce the congestion in import of North-Eastern region corridor
B. Southern Region							
4	Kudankulam(NPC IL)	Tamil Nadu	NPCIL	2*1000 MW	Unit-I : 2nd / 3rd week of Mar'13 ; Unit-II : 6-8 month after COD of unit-1	Kudankulam- Tirunelveli 2x400 kV D/c lines with Quad conductors	Help to relieve the congestion in S1-S2 Corridor i.e between Andhra Pradesh and Karnataka considered in S1 and Tamil Nadu, Kerala and Pondicherry in S2.
5	Neyveli Thermal station-II (Expansion)	Tamil Nadu	NEYVELI LIGNITE CORPORATIO	2*250 MW	Unit-I achieved full load on 04.02.2012 COD. Expected on July, 2013 ; Unit-II : October, 2013	Neyveli TS-II – Pugalur 400 kV D/C line charged on 19.09.2009	
6	Vallur TPP(JV with NTPC) stage II	Tamil Nadu	(JV of NTPC-TNEB) NTECL	Phase 1: 2*500 MW; Phase-2: 1* 500 MW	Stage 1: Unit 1: Achived full load on 28.03.2012, COD on 29.11.2012; Unit 2: February, 2013; Unit 3: March, 2013;	a) VTPP – Almathi 400KV D/C line b) VTPP – Melakottaiyur 400KV D/C line :TNEB is to execute the following transmission line : VTPP – NCTPS (TNEB) 400KV D/C line	
7	North Chennai TPS-II	Tamil Nadu	TANGEDCO	2*600 MW	Unit 1: March'13	400 kV NCTPS-SV Chatram and Almathy-Thiruvvelam 400 kV lines	
8	NLC Tamilnadu Power limited (NTPL)	Tuticorin, Tamil Nadu	Joint venture between NLC and TNEB	2*500 MW	Unit 1: Dec'13;Unit 2: March'14;	Connected at 765 kv Tuticorin Pooling station	

New generation expected in Chattisgarh and adjacent areas without adequate transmission systems for evacuation

S.No	Name of the Project	State	Ownership	Capacity (in MW)	Latest Status	Associated Transmission Lines	Remarks
1	Vandana Vidyut Ltd	Korba Distt., Chattisgarh	M/s Vandana Vidyut Ltd	540 MW	Unit-1: 135 MW (Commissioning by 03/13) Unit-2: 135 MW (Commissioning by 08/13) Unit-3: 270 (Commissioning by 03/14)..... Unit-1 under startup & commissioning .Expected CoD by April'13....next units synchronization after every 4months	Interim arrangement through LILO of Korba-Birsigpur ckt 2 and Permaent connectivity at Daramjayagarh PS through dedicated lines by developer	Problem in evacuation of Power from Chattisgarh and adjoining areas
2	K S K Mahanadi Power Company Limited	Nariyara, dist. Janjgir- Champa, Chhattisgarh	K S K Mahanadi Power Company Limited	3600 MW(6x600 MW)	1st unit is under startup and Commissioning,expected CoD by June'13..after every three months next one unit each will be Commissioned.	Interim arrangement through LILO of Raipur-Raigarh ckt 3&4 and Permaent connectivity at Champa PS through dedicated lines by developer	
3	Korba West Power Co.Ltd.	Raigarh (Chhattisgarh)	Avantha Power & Infrastructure Limited	2 X 600 MW	1st Unit is under startup & Commissioning, expected CoD by Aug'13. Second unit will not come in 2013-14.	Interim arrangement through LILO of Raipur-Raigarh ckt 1&2 and Permaent connectivity at Kotra PS through dedicated lines by developer	
4	Balco	Chhattisgarh	Vedanta	4*300MW+2*62.5MW	2*62.5MW(old units) already selling power through MTOA. U#1 ,U#2 & U#3 are ready for synchronization , waiting for clearance from Chhattisgarh Govt. U#1 is expected to synchronize by May'13 and CoD May'13. U#2,U#3 & U#4 by CoD by June'13, July'13 ans Aug'13 respectively.	Interim arrangement through LILO of Korba-Birsigpur ckt 1 and Permaent connectivity at Daramjayagarh PS through dedicated lines by developer	
5	DB Power Ltd	Chhattisgarh	DB Power Ltd	2*600MW	Unit#1 will start commisioning activities by April'13, expected CoD by June'13. U#2 in next four month time.	Interim connectivity granted through LILO of 400kV KSK - Raigarh ckt 1 and permanent connectivity at 400kV Kotra PS through dedicted lined by developer.	
6	SKS Power Ltd	Chhattisgarh	SKS Power Ltd	3*300MW	U#1 synchronization by Mar'14 and COD by Jun'14, UNIT 2 cod BY Sep'14	Permanenet connectivity at 400kV Kotra PS (near Raigarh) through 400kV dedicated lines by developer.	
7	JPL Phase-II	Chhattisgarh	Jindal	4*600MW	U#1 commissioning activity started in Mar'13.Synchronization of GT by June'13, CoD by Sept'13.U#2 CoD by Dec'13. Unit#4 by June'14 & U#5 by Dec'14	Interim connectivity given by PGCIL at existing 400kV JPL,Tamnar bus. Permaent connectivity at Tamnar PS through dedicated transmission lied by developer.	
8	ESSAR Mahan MP Power Ltd	MP	ESSAR Power Ltd	2*660MW	1st unit under startup & Commissioning activities ..expected CoD by Mar'13. Next unit by another 4months.	Interim arrangement through LILO of Vindhayachal-Korba ckt 1 and Permaent connectivity at Bilaspur Pooling station through dedicated lines by developer	