Issue Date: 27/02/2013 Issue Time: 1200 hrs Revision No. 15

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Comments
	1st February 2013 to 18th February 2013	00-24	1500	200	1300	286	1014	
	Total Peortury 2015	00-08	1500	200	1300	286	1014	
	19th February 2013	08-20'	1200	200	1000	286	714	Revised due to Shutdown of 400kV Agra-Gwalior ckt#1
	201 E1 2012	20-24	1500	200	1300	286	1014	
	20th February 2013 to 21st February 2013	00-24	1500	200	1300	286	1014	
	22nd February 2013	00-08 20-24	1700		1500		1214	Review and dynamic studies carried out to assess transfer capability
NR-WR		08-20'	1400	200	1200	286	914	Revised due to Shutdown of 400kV Agra-Gwalior ckt#2
	23rd February 2013	00-08 19-24	1700	200	1500	200	1214	Review and dynamic studies carried out to assess transfer capability
	23rd February 2013	08-19'	1400		1200		914	Revised due to Shutdown of 400kV Agra-Gwalior ckt#1
	24th February 2013 to	00-08 19-24	1700	200	1500	286	1214	Revised due to Shutdown of 400kV
	27th February 2013	08-19'	1300		1100		814	Bina-Gwalior ckt#1/2
	28th February 2013	00-24	1700	200	1500	286	1214	
	1st February 2013 to 15th February 2013	00-24	1700	200	1500	1040	460	LTA revised due to commissioning of CGPL unit-40.
	16th February 2013 to 18th February 2013	00-24	2000	200	1800	1040	760	Review and dynamic studies carried out to assess transfer capability
	19th February 2013	00-08	2000	200	1800	1040	760	
		08-20'	1600	200	1400	1040	360	Revised due to Shutdown of 400kV Agra-Gwalior ckt#1
		20-24	2000	200	1800	1040	760	
WR-NR	20th February 2013 to 21th February 2013	00-24	2000	200	1800	1040	760	
W K-MK	22nd February 2013	00-08 20-24	2000	200	1800	1040	760	
		08-20'	1600		1400		360	Revised due to Shutdown of 400kV Agra-Gwalior ckt#2
	23rd February 2013	00-08 19-24	2000	200	1800	1010	760	
	2514 1 651441	08-19'	1600		1400		360	Revised due to Shutdown of 400kV Agra-Gwalior ckt#1
	24th February 2013 to 27th February 2013	00-08 19-24	2000	200	1800	1040	760	Revised due to Shutdown of 400kV
	27th February 2013	08-19'	1500		1300		260	Bina-Gwalior ckt#1/2
	28th February 2013	00-24	2000	200	1800	1040	760	
		00.17						
NR-ER	1st February 2013 to 28th February 2013	00-17 23-24	800	200	600	0	600	
	20th February 2013	17-23 00-17	900		700		700	
ER-NR	1st February 2013 to 28th February 2013	23-24	2700	300	2400	1912 1912	488 488	
		11-23				1712	700	
W3-ER	1st February 2013 to 28th February 2013	00-24	1400	300	1100	0	1100	
ER-W3	1st February 2013 to 28th February 2013	00-24	1000	250	750	750	0	

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Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Comments	
WR-SR	1st February 2013 to 28th February 2013	00-24	1000	0	1000	992	8		
SR-WR	1st February 2013 to 28th February 2013	00-24	1000	0	1000	0	1000		
	1st February 2013 to	00-05 10-19	950	0	950	170	780	Revised due to full availability of ER ISGS, TSTPP st-II and less drawal by	
	5th February 2013	05-10 19-24	950*		950*		780*	Odisha.	
	6th Echmony 2012	00-05 18-19 10-18'	950	0	950	170	780	Revised due to Shutdown of 400kV	
	6th February 2013	05-10 19-24	750 950*	U	750 950*	170	580 780*	Meramundali-Bolangir.	
	74 54 2012	00-05 10-19	950	0	950	170	780		
	7th February 2013	05-10 19-24	950*	0	950*	170	780*		
ER-SR#	8th February 2013	00-05 10-19	500	0	500	170	330	Revised due to outage of two units of Talcher Stage-I and shutdown of	
221 5211		05-10 19-24	500*		500*		330*	Bolangir-Jeypore.	
	9th February 2013 to	00-05 10-19	950	0	950	170	780		
	26th February 2013	05-10 19-24	950*		950*		780*		
	27th February 2013	00-05 10-19	950 700	0	950 700	170	780 530	Revised due to shutdown of 400 kV	
		05-10 19-24	950*		950*		780*	Jeypore-Indravati	
	28th February 2013	00-05	950	0	950	170	780	Revised due to shutdown of 400 kV	
		10-19 05-10	700 950*		700 950*		530 780*	Jeypore-Indravati	
(D FD	1st February 2013 to	19-24 00-17	700	0	700	107	503		
SR-ER	28th February 2013	23-24 17-23	700	0	700	197	503		
	1st February 2013 to 24th February 2013	00-17 23-24	450	35	415	220	195		
	24th February 2013	17-23 00-08	450		415	220	195		
ER-NER	25th February 2013	17-24 08-17'	450 255	35	220	220	195	Revised due to shutdown of 400 kV Balipara-Bongaigaon ckt 1	
	26th February 2013 to	00-17 23-24	450	35	415	220	195		
	28th February 2013	17-23 00-17	450		415	220	195		
	1st February 2013 to 24th February 2013	23-24	490		390		390		
		17-23 00-08 23-24	270 490		170 390		390		
	25th February 2013	08-17' 17-23	100 270		0 170	0	0 170	Revised due to shutdown of 400 kV Balipara-Bongaigaon ckt 1	
NER-ER	201 E1 2012	00-08 23-24	490	100	390		390	- F Surguon ont 1	
	26th February 2013	08-17' 17-23	440 270		340 170		340 170	Revised due to shutdown of 220 Kv Sarusajai-Agia D/C	
	27th February 2013 to 28th February 2013	00-17 23-24	490		390		390		
	2011 1 Columny 2013	17-23	270		170		170		

	Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Comments
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Issue Date: 27/02/2013 Issue Time: 1200 hrs Revision No. 15

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Comments	
S1-S2	1st February 2013 to 28th February 2013	00-24	5500	200	5300	4400	900	Revised due to non-commissioning of Kudamkulam unit	
Import of Punjab	1st February 2013 to 28th February 2013	00-24	5400	300	5100	3243	1857		
Import TTC for DD & DNH	1st February 2013 to 28th February 2013	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone	1st February 2013 to	00-17, 23-24	8000	200	7800	6413	1387	6413 MW corresponds to maximum effective LTA from W3. Export Margin from W3 would vary as per	
Injection	28th February 2013	17-23	8500	200	8300	0713	1887	the maintenance schedule of generators in the zone.	

- 1) ER-SR TTC declared at Talcher Interconnector and Gazuwaka HVDC B/B seam

- 2) ^ S1 comprises of AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Pondicherry
  3) W3 comprises of the following regional entities and would be operational wef 0000 hrs of 18th September 2012
  a) Chattisgarh, b) Jindal Power Limited (JPL), c) Jindal Steel and Power Limited (JSPL), d) ACBL, e) LANCO Amarkantak
- f) BALCO, g) Sterlite (#1,3,4), h) NSPCL, i) Korba, j) Sipat
- \* additional 250 MW can be transferred to SR if injection point is South Odisha

#### **Limiting Constraints**

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Bina(PG)-Bina(MP)
WR-NR	(n-1) contingency of 400 kV Satna-Bina leading to overloading of 765/400 kV Bina transformer
NR-ER	(n-1) contingency of 400 kV Pusauli-Biharsharif
ER-NR	(n-1) contingency of 400 kV Farakka-Malda
W3-ER	(n-1) contingency of 400 kV Sterlite-Rourkela
ER-W3	High loading of 400 kV Raipur-Wardha, Raipur-Bhadrawati T/C, Bhilai-Bhadrawati S/C, Bhilai-Koradi and Bhilai-Seoni* (n-1) contingency of 400kV Rourkela-Raigarh
WR-SR	Bhadrawati HVDC B/B link capacity
SR-WR	Bhadrawati HVDC B/B link capacity
ER-SR	(n-1) contingency of 400 kV Vijaywada-Nellore* Low Voltage in Chennai Area (n-1) contingency of 400 kV Rourkela-Talcher*
SR-ER	(n-1) contingency of 400 kV Farakka-Malda* (n-1) contingency of 400 kV Kadappa-Kolar and Neyvelli- Sriperumbudur
ER-NER	(n-1) contingency of 400 kV Farakka-Malda* High Loading of 220 kV BTPS-Agia (n-1) contingency of 400 kV Balipara – Bongaigaon-I
NER-ER	(n-1) contingency of 400 kV Binaguri-Bongaigaon-I (n-1) contingency of 400 kV Balipara-Bongaigaon-I* High loading of 132 kV LTPS – Mariani S/C* (n-1) contingency of 220 kV Samaguri – Saruajai I*
S1-S2	(n-1) contingency of 400 kV Hosur-Salem
Import of Punjab	(n-1) contingency of ICT at Moga
W3 zone export TTC	(n-1) contingency of 400 kV Raipur-Wardha and High loading of 400 kV Bhilai-Koradi
•	*Primary constraints

<sup>\*</sup>Primary constraints

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Comments	
ER									
	1st February 2013 to 15th February 2013	00-24	4400		3900		948	LTA revised due to commissioning of CGPL unit-40.	
	16th February 2013 to 18th February 2013	00-24	4700		4200		1248	Review and dynamic studies carried out to assess transfer capability	
		00-08	4700	500	4200	2952	1248		
	19th February 2013	08-20'	4300	300	3800	2932	848	Revised due to Shutdown of 400kV Agra-Gwalior ckt#1	
	204 E 1 2012	20-24	4700		4200		1248		
	20th February 2013 to 21st February 2013	00-24	4700		4200		1248		
NR	22nd February 2013	00-08 20-24	4700		4200		1248		
	ZZIId I Coldally 2013	08-20'	4300	500	3800	2952	848	Revised due to Shutdown of 400kV Agra-Gwalior ckt#2	
	23rd February 2013	00-08 19-24	4700		4200		1248		
	2514 1 0014411 / 2015	08-19'	4300		3800		848	Revised due to Shutdown of 400kV Agra-Gwalior ckt#1	
	24th February 2013 to	00-08 19-24	4700	500	4200	2952	1248	Revised due to Shutdown of 400k Bina-Gwalior ckt#1/2	
	27th February 2013	08-19'	4200		3700		748	Bina-Gwalior ckt#1/2	
	28th February 2013	00-24	4700	500	4200	2952	1248		
	1st February 2013 to 24th February 2013	00-17 23-24	450	35	415	220	195		
		17-23 00-08	450		415	220	195		
NER	25th February 2013	17-24	450	35	415	220	195	Revised due to shutdown of 400 kB	
	26th Fahrman 2012 to	08-17' 00-17	255		220	220	0	Balipara-Bongaigaon ckt 1	
	26th February 2013 to 28th February 2013	23-24	450	35	415	220	195		
WD		17-23	450		415	220	195		
WR		00.05							
	1st February 2013 to 5th February 2013	00-05 10-19 05-10	1950	0	1950	1162	788	Revised due to full availability of ER ISGS, TSTPP st-II and less drawal by	
		19-24	1950*		950*		788*	Odisha.	
		00-05 18-19	1950		1950		788		
	6th February 2013	10-18'	1750	0	1750	1162	588	Revised due to Shutdown of 400kV Meramundali-Bolangir.	
		05-10 19-24	1950*		950*		788*	wici amunuari-Dolaligif.	
	74 5 1 2012	00-05 10-19	1950	0	1950	1162	788		
	7th February 2013	05-10 19-24	1950*	0	950*	1162	788*	1	
	8th February 2013	00-05 10-19	1500	0	1500	1162	338	Revised due to outage of two units of Talcher Stage-I and shutdown of	
SR	our reordary 2013	05-10 19-24	1500*	0	1500*	1102	338*	Bolangir-Jeypore.	
	9th February 2013 to	00-05 10-19	1950	0	1950	1162	788		
	26th February 2013	05-10 19-24	1950*	,	950*	1102	788*		
		00-05	1950		1950		788	Revised due to shutdown of 400 kV	
	27th February 2013	10-19' 05-10	1700	0	1700	1162	538	Revised due to shutdown of 400 kV Jeypore-Indravati	
		19-24	1950*		950*		788*		
		00-05	1950		1950		788	Payisad due to shutdown of 400 LV	
	28th February 2013	10-19' 05-10	1700	0	1700	1162	538	Revised due to shutdown of 400 kV Jeypore-Indravati	
<u></u>		19-24	1950*	oint is South	950*		788*		

<sup>\*</sup> additional 250 MW can be transferred to SR if injection point is South Odisha

## Simultaneous Export Capability

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Comments
ER-NR +	1st February 2013 to 28th February 2013	00-17 23-24	3000	350	2650	2132	518	
ER-NER	28th February 2013	17-23	3000		2650	2132	518	
	1st February 2013 to 18th February 2013	00-17 23-24	2300		2100		1814	
	18th February 2015	17-23	2400		2200		1914	
		00-08 23-24	2300		2100		1814	
	19th February 2013	08-17'	2000	200	1800	286	1514	Revised due to Shutdown of 400kV
		17-20	2100		1900		1614	Agra-Gwalior ckt#1
		20-23 00-17	2400		2200		1914	
	20th February 2013 to 21st February 2013	23-24	2300		2100		1814	
		17-23	2400		2200		1914	
NR	22nd February 2013	00-08 20-24	2500		2300	286	2014	Review and dynamic studies carried out to assess transfer capability
	22114 7 0014141 7 2019	08-20'	2200	200	2000		1714	Revised due to Shutdown of 400kV Agra-Gwalior ckt#2
	23rd February 2013	00-08 19-24	2500		2300		2014	Review and dynamic studies carried out to assess transfer capability
		08-19'	2200		2000		1714	Revised due to Shutdown of 400kV Agra-Gwalior ckt#1
	24th February 2013 to	00-08 19-24	2500	200	2300	286	2014	Revised due to Shutdown of 400kV Bina-Gwalior ckt#1/2
	27th February 2013	08-19'	2100		1900		1614	Bina-Gwalior ckt#1/2
	28th February 2013	00-24	2500	200	2300	286	2014	
	1st February 2013 to	00-17 23-24	490		390		390	
	24th February 2013	17-23	270		170		170	
	25th February 2013	00-08 23-24	490		390		390	
	23th rebluary 2013	08-17'	100		0		0	Revised due to shutdown of 400 kV
NER		17-23	270	100	170	0	170	Balipara-Bongaigaon ckt 1
, ver	26th February 2013	00-08 23-24	490	100	390	Ü	390	
	2011 1 Columny 2013	08-17'	440		340		340	Revised due to shutdown of 220 Kv
		17-23	270		270		270	Sarusajai-Agia D/C
	27th February 2013 to 28th February 2013	00-17 23-24	490		390		390	
	200110010019 2015	17-23	270		170		170	
WR								
SR	1st February 2013 to	00-17 23-24	1700	0	1700	197	1503	
	28th February 2013	17-23	1700		1700		1503	

## **Limiting Constraints**

NR	Import	(n-1) contingency of 400 kV Farakka-Malda*
		(n-1) contingency of 400 kV Satna-Bina leading to overloading of 765/400 kV Bina transformer*
	Export	(n-1) contingency of 400kV Bina(PG)-Bina(MP)
		(n-1) contingency of 400 kV Pusauli-Biharsharif
NER	Import	High Loading of 220 kV BTPS-Agia
		(n-1) contingency of 400 kV Balipara – Bongaigaon-I
		(n-1) contingency of 400 kV Farakka-Malda*
	Export	High loading of 132 kV LTPS - Mariani*
		(n-1) contingency of 400 kV Binaguri-Bongaigaon & 400 kV Balipara-Bongaigaon-I
SR	Import	(n-1) Coningency of 400kV Gooty-Somanhalli & 400kV Gooty-Nelamangala line
		(n-1) contingency of 400 kV Rourkela-Talcher
		Low Voltage in Chennai Area
		(n-1) contingency of 400 kV Vijaywada-Nellore
	Export	(n-1) contingency of Chandrapur-Parli
		(n-1) contingency of 400 kV Maithon Kahalgaon
		(n-1) contingency of 400 kV Kadappa-Kolar and Neyvelli- Sriperumbudur
ER-NR		(n-1) contingency of 400 kV Farakka-Malda
ER-NEF	R Export	(II-1) CONTINGENCY OF 400 K V Palakka-iviatud

# **ASSUMPTIONS IN BASECASE**

		Lo	ad	Generation		
S.No.	Name of State/Area	Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)	
I	NORTHERN REGION					
1	Punjab	5062	4141	2242	2174	
2	Haryana	5017	4047	3122	3122	
3	Rajasthan	7048	6700	3855	3886	
4	Delhi	4179	3012	1416	1416	
5	Uttar Pradesh	10478	9100	5500	5335	
6	Jammu & Kashmir	1838	1380	235	252	
7	Uttarakhand	1333	1100	512	321	
8	Himachal Pradesh	1055	940	230	44	
9	Chandigarh	187	86	0	0	
10	ISGS			16279	10791	
	Total NR	36197	30506	33392	27341	
II	EASTERN REGION					
1	West Bengal	5300	3900	4600	3750	
2	Jharkhand	900	770	390	350	
3	Orissa	3000	2200	2800	1710	
4	Bihar	1500	1300	130	100	
5	Damodar Valley Corporation	2200	2000	1550	2650	
6	Sikkim	60	50	0	0	
7	Bhutan	110	110	1400	270	
8	ISGS			6300	5180	
	Total ER	13070	10330	17170	14010	
III	WESTERN REGION					
1	Chattisgarh	2977	2132	2518	2025	
2	Madhya Pradesh	7112	4894	3443	2802	
3	Maharashtra	15798	12916	13113	9454	
4	Gujarat	10470	8369	9933	7564	
5	Goa	327	198			
6	Daman and Diu	260	181			
7	Dadra and Nagar Haveli	612	479			
8	ISGS			13063	11996	
	Total WR	37556	29169	42070	33841	
IV	SOUTHERN REGION					
1	Andhra Pradesh	11120	9901	8032	6753	
2	Tamil Nadu	10756	9471	5146	3928	
3	Karnataka	8500	6242	5977	3928	
4	Kerala	3305	2690	222	1153	
5	Pondy	303	247			
6	Goa	84	84			
7	ISGS			11053	10815	
	Total SR	34068	28635	30430	26577	
٧	NORTH-EASTERN REGION					
1	Manipur	105	74	0	0	
2	Meghalaya	280	196	121	118	
3	Mizoram	75	53	6	3	
4	Nagaland	115	81	12	10	
5	Assam	1200	800	230	211	
6	Tripura	200	140	100	100	
7	Arunachal Pradesh	105	74	0	0	
8	ISGS	0	0	966	533	
	Total NER	2080	1418	1435	975	
	Total All India	122971	100058	124497	102744	