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 March 2013 to 5th March 2013	00-24	1500	200	1300	286	1014		
	6th March 2013	00-07, 19-24	1500	200	1300	286	1014	Revised due to shutdown of 400 kV Zerda-Kankroli on 06.03.13.	
		07-19'	1300		1100		814	D : 11 . G . H .: 6400	
	7th March 2013 to 8th March 2013	00-24	1500	200	1300	286	1014	Revised due to Cancellation of 400 kV Zerda-Bhinmal shutdown on 07.03.13.	
NR-WR	9th March 2013	00-24'	1500	200	1300	286	1014	Revised due to Cancellation of Agra- Gwalior-Bina shutdown.	
	10th Manch 2012	00-03	1500	200	1300	296	1014	Revised due to upgradation work of	
	10th March 2013	03-24'	1300	200	1100	286	814	Agra-Gwalior-Bina. The upgradation work would be carried	
	11th March 2013 to 25th March 2013	00-24	1300	200	1100	286	814	out in different stages from 9th March to 25th March 2013	
	26th March 2013 to 31st March 2013	00-24	1500	200	1300	286	1014		
	1st March 2013 to 5th March 2013	00-24	2000	200	1800	1040	760	Review and dynamic studies carried out to reassess transfer capability	
	6th March 2013	00-07, 19-24	2000	200	1800	1040	760	Revised due to shutdown of 400 kV Zerda-Kankroli on 06.03.13.	
		07-19'	1800		1600		560		
	7th March 2013 to 8th March 2013	00-24	2000	200	1800	1040	760	Revised due to Cancellation of 400 kV Zerda-Bhinmal shutdown on 07.03.13.	
WR-NR	9th March 2013	00-24'	2000	200	1800	1040	760	Revised due to Cancellation of Agra- Gwalior-Bina	
	10h March 2013	00-03	2000	200	1800	1040	760	Revised due to upgradation work of Agra-Gwalior-Bina. The	
		03-24'	1500		1300	1040	260	upgradation work would be carried	
	11th March 2013 to 25th March 2013	00-24	1500	200	1300	1040	260	out in different stages from 9th March to 25th March 2013	
	26th March 2013 to 31st March 2013	00-24	2000	200	1800	1040	760		
	1st March 2013 to	00-17 800		600		600			
NR-ER	31st March 2013	23-24 17-23	900	200	700	0	700		
	1st March 2013 to	00-17	2500	300	2200	1900	300		
	4th March 2013	23-24 17-23	2300	300	2200	1900	300		
	5th March 2013	00-09	2500	300	2200	1900	300		
		09-24'	2200		1900		0	Revised due to shutdown of 400 kV	
ER-NR	6th March 2013	00-24	2200	300	1900	1900	0	Kahalgaon-Biharsharif I	
	7th March 2013	00-18 18-24	2200 2500	300	1900 2200	1900	300		
	8th March 2013 to	00-17		200		1900	300		
	31st March 2013	23-24 17-23	2500	300	2200	1900	300		
	1-t M1 2012								
W3-ER	1st March 2013 to 31st March 2013	00-24	1400	300	1100	0	1100		
ER-W3	1st March 2013 to 31st March 2013	00-24	1000	300	700	650	50		
WR-SR	1st March 2013 to 31st March 2013	00-24	1000	0	1000	992	8		
SR-WR	1st March 2013 to 31st March 2013	00-24	1000	0	1000	0	1000		

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 March 2013 to	00-05 10-19	950		950		780	Deview of TTC due to show in lead
	9th March 2013	05-10	950*	0	950*	170	780*	Review of TTC due to change in load generation scenario
		19-24 00-05						
		1030-19	950		950		780	
	10th March 2013 to 11th March 2013	05-0830 19-24	950*	0	950*	170	780*	Revised due to shutdown of 400kV Vijayawada-Nellore D/C for chariot
ER-SR	Titii Marcii 2013	0830- 1000	750		250		80	crossing.
DIX SIX		1000- 1030'	250		250		80	
		00-05 10-19	950		950		780	
	12th March 2013	05-10 19-24	950*	0	950*	170	780*	
	13th March 2013 to	00-05 10-19	950^		950^		780^	
	31st March 2013	05-10 19-24	950^^	0	950^^	170	780^^	
SR-ER	1st March 2013 to	00-17	700	0	700	197	503	
SK-EK	31st March 2013	23-24 17-23	700	Ü	700	197	503	
ER-NER	1st March 2013 to	00-17 23-24	400	35	365	228	137	
	31st March 2013	17-23	400		365	228	137	
NER-ER	1st March 2013 to 31st March 2013	00-17 23-24	510	100	410	0	410	
	31st Waren 2013	17-23	280		180		180	
S1-S2	1st March 2013 to 31st March 2013	00-24	5800	200	5600	4400	1200	
Import of Punjab	1st March 2013 to 31st March 2013	00-24	5400	300	5100	3243	1857	
Import TTC for DD & DNH	1st March 2013 to 31st March 2013	00-24	980	0	980	LTA and MTO		
	1st March 2013 to	00-17, 23-24	8000	200	7800	6412	1387	6413 MW corresponds to maximum effective LTA from W3. Export
	12th March 2013	17-23	8500	200	8300	6413	1887	Margin from W3 would vary as per the maintenance schedule of generators in the zone.
		00-08, 23-24	8000		7800		1387	Revised due to shutdown of 400kV
	13th March 2013 to 14th March 2013	08-17'	7600	200	7400	6413	987	Bhilai-Koradi on 13.3.13 & 14.3.13 for stringing work of upcoming 765
	Tim March 2013	17-18' 18-23	8100 8500		7900 8300		1487 1887	kV Raipur Pooling Station.
W3 zone Injection#	15th March 2013 to 20th March 2013	00-17, 23-24	8000	200	7800	6413	1387	
	20th March 2013	17-23	8500		8300		1887	
		00-07, 23-24	8000		7800		1387	Revised due to shut down of 400kV
	21st March 2013	07-17'	7600	200	7400	6413	987	Raipur-Bhilai and 400kV Raipur-
		17-19' 19-23	8100 8500		7900 8300		1487 1887	Bhadrawati-1
	22nd March 2013 to 31st March 2013	00-17, 23-24	8000	200	7800	6413	1387	
	51st March 2013	17-23	8500		8300		1887	

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

<sup>2) ^</sup> S1 comprises of AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Pondicherry

<sup>3)</sup> 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

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

<sup>^</sup> additional 100 MW can be transferred to SR if injection point is South Odisha

<sup>^^</sup> additional 350 MW can be transferred to SR if injection point is South Odisha

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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#### **Limiting Constraints**

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Bina(PG)-Bina(MP)
WR-NR	(n-1) contingency of 400 kV Bina-Satna leading to high loading 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 SR-WR	Bhadrawati HVDC B/B link capacity 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 Balipara-Bongaigaon-I (n-1) contingency of 220 kV Samaguri – Saruajai I*
S1-S2	(n-1) contingency of 400 kV Hosur-Salem line
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

<sup>\*</sup>Primary constraints

Issue Date: 20/03/2013 Issue Time: 1230 hrs Revision No. 13

Simultaneous Import 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									
	1st March 2013 to 4th March 2013	00-17 23-24 17-23	4500	500	4000 4000	2940 2940	1060 1060	Review and dynamic studies carried out to reassess transfer capability	
	5th March 2013	00-09 09-24'	4500 4200	500	4000 3700	2940	1060 760	1. Revised due to shutdown o 400 kV Kahalgaon-	
	6th March 2013	00-07, 19- 24 07-19'	4200	500	3700	2940	760	Biharsharif I. 2.Shutdown of 400 kV Zerda- Kankroli on 06.03.13.	
	7th March 2013	00-18'	4000 4200	500	3500 3700	2940	560 760	3.Revised due to Cancellation of 400 kV Zerda-Bhinmal	
	9th Monch 2012	18-24' 00-24	4500		4000		1060	shutdown on 07.03.13.	
NR	9th March 2013	00-24	4500 4500		4500		1560	Revised due to Cancellation of Agra-Gwalior-Bina shutdown.	
	10th March 2013	00-03	4500 4000	500	4000 3500	2940	1060 560	Revised due to upgradation work of Agra-Gwalior-Bina. The upgradation work would	
	11th March 2013 to 25th March 2013	00-24	4000		3500		560	be carried out in different stages from 9th March to 25th March 2013.	
	26th March 2013 to 31st March 2013	00-17 23-24	4500	500	4000	2940	1060	Review and dynamic studies carried out to reassess transfer	
		17-23 00-17	400		4000	2940	1060	capability	
NER	1st March 2013 to 31st March 2013	23-24 17-23	400	35	365 365	228	137		
WR		17-23	400		303	228	137		
,,,,,	1st March 2013 to	00-05 10- 19	1950		1950		788		
	31st March 2013	05-10 19-	1950*	0	1950*	1162	788*	Review of TTC due to change in load generation scenario	
		00-05 1030-19	1950		1950		788		
	10th March 2013 to 11th March 2013	05-0830 19-24 0830-10	1950*	0	1950*	1162	788*	Revised due to shutdown of 400kV Vijayawada-Nellore D/C for chariot crossing.	
SR		1000- 1030'	1750 1250		1750 1250		588 88	Tot Charlot Crossing.	
	12th March 2013	00-05 10- 19	1950	0	1950	1162	788		
	12th March 2013	05-10 19- 24	1950*		1950*	1102	788*		
	13th March 2013 to	00-05 10- 19	1950^	0	1950^	1162	788^		
	31st March 2013	05-10 19- 24	1950^^		1950^^		788^^		

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

<sup>^</sup> additional 100 MW can be transferred to SR if injection point is South Odisha ^^ additional 350 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 + ER-NER	1st March 2013 to 31st March 2013	00-17 23-24	2700	350	2350	2132	218	
EK-NEK		17-23	2700		2350	2132	218	
	1st March 2013 to 31st March 2013	00-17 23-24 17-23	2300	200	2100	286	1814 1914	
		00-07 23-24	2300		2100		1814	Revised due to Shutdown of 400
	6th March 2013	07-17' 17-19	2100 2200	200	1900 2000	286	1614 1714	kV Zerda-Kankroli on 06.03.13 & 400 kV Zerda-Bhinmal on 7.03.13.
	7th March 2013 to	19-23' 00-17 23-24	2400	200	2200 2100	286	1914 1814	Revised due to Cancellation of 400 kV Zerda-Bhinmal shutdown
	8th March 2013	17-23	2400		2200		1914	on 07.03.13.
NR	9th March 2013	00-17 23-24	2300	200	2100	286	1814	Revised due to Cancellation of
		17-23	2400		2200		1914	Agra-Gwalior-Bina shutdown.
		00-03	2300	200	2100	286	1814	Davised due to ungradation
	10th March 2013	03-17 23-24	2100		1900		1614	Revised due to upgradation work of Agra-Gwalior-Bina. The upgradation work would be
		17-23	2200		2000		1714	carried out in different stages
	11th March 2013 to 25th March 2013	00-17 23-24	2100	200	1900		1614	from 9th March to 25th March
	25th Waten 2015	17-23	2200		2000		1714	
	26th March 2013 to 31st March 2013	00-17 23-24	2300	200	2100	286	1814	
	515t Water 2015	17-23	2400		2200		1914	
NER	1st March 2013 to 31st March 2013	00-17 23-24	510	100	410	0	410	
	515t Water 2015	17-23	280		180		180	
WR								
		00-17						
SR	1st March 2013 to 31st March 2013	23-24	1700	0	1700	197	1503	
	315t Water 2013	17-23	1700	1700		1503		

### **Limiting Constraints**

NR	Import	(n-1) contingency of 400 kV Farakka-Malda*
		(n-1) contingency of 400 kV Bina-Satna leading to high loading of 765/400 kV Bina transformers*
	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	(n-1) contingency of 220 kV Samaguri – Saruajai I*
		(n-1) contingency of 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*
		Bhadrawati HVDC B/B link capacity
		(n-1) contingency of 400 kV Vijaywada-Nellore
	Export	(n-1) contingency of 400 kV Farakka-Malda
		(n-1) contingency of 400 kV Maithon-Kahalgaon
		(n-1) contingency of 400 kV Kadappa-Kolar and Neyvelli- Sriperumbudur
ER-NR + ER-NER	Export	(n-1) contingency of 400 kV Farakka-Malda*

# **ASSUMPTIONS IN BASECASE**

		Loa	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	5678	4250	2437	2318	
2	Haryana	5592	4591	3623	3623	
3	Rajasthan	7243	6793	4084	4089	
4	Delhi	4090	3299	1206	1206	
5	Uttar Pradesh	10774	9516	6020	5839	
6	Jammu & Kashmir	1800	1359	333	339	
7	Uttarakhand	1365	1100	523	302	
8	Himachal Pradesh	1043	959	218	131	
9	Chandigarh	188	86	0	0	
10	ISGS			16384	11062	
	Total NR	37773	31952	34828	28910	
II	EASTERN REGION					
1	West Bengal	6457	5456	4744	4088	
2	Jharkhand	964	650	354	354	
3	Orissa	3009	2300	1710	1611	
4	Bihar	1805	1450	101	101	
5	Damodar Valley Corporation	2303	2000	2954	2954	
6	Sikkim	44	44	0	0	
7	Bhutan	112	112	245	245	
8	ISGS			6505	5995	
	Total ER	14694	12012	16613	15348	
III	WESTERN REGION					
1	Chattisgarh	3153	2242	2518	2025	
2	Madhya Pradesh	7200	5146	3443	2802	
3	Maharashtra	15717	13582	13113	9454	
4	Gujarat	10497	8800	9933	7564	
5	Goa	420	280	2230	7.001	
6	Daman and Diu	252	190			
7	Dadra and Nagar Haveli	602	504			
8	ISGS	302	331	11920	11796	
	Total WR	37841	30744	40927	33641	

# **ASSUMPTIONS IN BASECASE**

	710001111	10110 111		<u> </u>	
IV	SOUTHERN REGION				
1	Andhra Pradesh	10835	9993	8217	6817
2	Tamil Nadu	10456	8310	5148	4619
3	Karnataka	8521	7469	5482	4397
4	Kerala	3314	2209	2248	645
5	Pondy	320	231		
6	Goa	84	84		
7	ISGS			10955	10772
	Total SR	33530	28296	32050	27250
٧	NORTH-EASTERN REGION				
1	Manipur	100	70	0	0
2	Meghalaya	280	196	99	71
3	Mizoram	70	49	4	3
4	Nagaland	110	77	11	10
5	Assam	1230	840	222	203
6	Tripura	221	155	94	91
7	Arunachal Pradesh	105	74	0	0
8	ISGS	0	0	934	499
	Total NER	2116	1461	1364	877
	Total All India	125954	104465	125782	106026