

National Load Despatch Centre
Total Transfer Capability for May 2013

Issue Date: 20/05/2013

Issue Time: 2300 hrs

Revision No. 13

against any corridor indicates that revision has been done for this corridor

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)	Changes in TTC w.r.t. Last Revision	Comments	
NR-WR	1st May 2013 to 8th May 2013	00-24	1500	200	1300	286	1014			
	9th May 2013 to 31st May 2013	00-24	2500	500	2000	286	1714		1. Revised due to upgradation of 400 kV Bina-Gwalior-Agra D/C to 765 kV. 2. Revised due to commissioning of 765 kV Agra-Jhatikara.	
WR-NR ¹ #	1st May 2013 to 8th May 2013	00-24	2000*	200	1800	1287	513		LTA revised due to commissioning of CGPL Unit-50.	
	9th May 2013 to 12th May 2013	00-24	5700 ^Δ	500	5200 ^Δ	2787 ^Δ	2413		1. Revised due to upgradation of 400 kV Bina-Gwalior-Agra D/C to 765 kV. 2. Revised due to commissioning of 765 kV Agra-Jhatikara.	
	13th May 2013 to 16th May 2013	00-07 20-24	5700 ^Δ	500	5200 ^Δ	2787 ^Δ	2413	2163		Revised due to shutdown of 400 kV Zerda-Bhinmal.
		07-20'	5450 ^Δ		4950 ^Δ					
	17th May 2013 to 20th May 2013	00-24	5700 ^Δ	500	5200 ^Δ	2787 ^Δ	2413			
	21st May 2013	00-07, 20-24	5700 ^Δ	500	5200 ^Δ	2787 ^Δ	2413		2600	Revised due to shutdown of 765 kV Agra-Jhatikara.
		07-20'	3100 ^Δ	300	2800 ^Δ	2787 ^Δ	13			
22nd May 2013 to 31st May 2013	00-24	5700 ^Δ	500	5200 ^Δ	2787 ^Δ	2413				
NR-ER	1st May 2013 to 31st May 2013	00-17 23-24	1000	200	800	0	800			
		17-23	1100		900		900			
ER-NR	1st May 2013 to 8th May 2013	00-17 23-24	2600	300	2300	1913	387			
		17-23					1913			387
	9th May 2013 to 14th May 2013	00-17 23-24 17-23	3000	300	2700	1913	787		Revised due to increase in hydro generation pattern in Eastern Region	
15th May 2013 to 31st May 2013	00-24	2600	300	2300	1913	387		Revised due to tower collapse of 400 kV Maithon-Koderma D/C line.		
W3-ER	1st May 2013	00-24	1650	300	1350	0	1350		Revised due to network configuration changes in Eastern Region and other new generating units addition leading to change in power flow pattern.	
	2nd May 2013	00-08	1650	300	1350	0	1350			
		08-24'	1450	300	1150		1150			
	3rd May 2013 to 7th May 2013	00-24	1450	300	1150	0	1150		Revised due to shutdown of 400 kV Sterlite-Raigarh (LILO 1) and 400 kV Raigarh-Rourkela 1	
	8th May 2013	00-18	1450	300	1150	0	1150			
		18-24	1650	300	1350		1350			
	9th May 2013 to 12th May 2013	00-24	1900	300	1600	0	1600		Revised due to load generation balance review.	
	13th May 2013	00-07 19-24	1900	300	1600	0	1600			
		07-19'	1650		1350		1350			
	14th May 2013 to 16th May 2013	00-24'	1650	300	1350	0	1350		Revised due to shutdown of 400 kV Rourkela-Jharsuguda-Raigarh.	
17th May 2013 to 19th May 2013	00-24'	1650	300	1350	0	1350		Revised due to extension of 400 kV Rourkela-Jharsuguda-Raigarh shutdown.		
20th May 2013	00-19'	1650	300	1350	0	1350				
	19-24	1900		1600		1600				
21st May 2013 to 31st May 2013	00-24	1900	300	1600	0	1600				

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ER-W3	1st May 2013	00-24	1000	300	700	700	0			
	2nd May 2013	00-08	1000	300	700	700	0		Revised due to shutdown of 400 kV Sterlite-Raigarh (LILO 1) and 400 kV Raigarh-Rourkela 1	
		08-24'	800	300	500	500	0			
	3rd May 2013 to 7th May 2013	00-24	800	300	500	500	0			
	8th May 2013	00-18	800	300	500	500	0			
		18-24	1000	300	700	700	0			
	9th May 2013 to 13th May 2013	00-24	1000	300	700	700	0			
	14th May 2013 to 16th May 2013	00-24	800	300	500	500	0			Revised due to shutdown of 400 kV Rourkela-Jharsuguda-Raigarh.
	17th May 2013 to 19th May 2013	00-24	800	300	500	500	0			Revised due to extension of 400 kV Rourkela-Jharsuguda-Raigarh shutdown.
20th May 2013	00-19'	800	300	500	700	0				
	19-24	1000		700						
21st May 2013 to 31st May 2013	00-24	1000	300	700	700	0				
WR-SR	1st May 2013 to 31st May 2013	00-24	1000	0	1000	1000	0		Revised due to change in MTOA Quantum.	
SR-WR	1st May 2013 to 31st May 2013	00-24	1000	0	1000	0	1000			
ER-SR	1st May 2013 to 2nd May 2013	00-05	1000	0	1000	112	888		Review of TTC due to change in Load Generation scenario and also change in LTA Quantum.	
		05-10			1000		888			
	3rd May 2013 to 8th May 2013	00-05	1000	0	1000	112	888			
		05-10	1000^		1000^		888^			
	9th May 2013 to 31st May 2013	00-05	1200**	0	1200**	112	1088**			
		05-10	1200**		1200**		1088**			
SR-ER	1st May 2013 to 31st May 2013	00-17	700	0	700	197	503			
		23-24			700		503			
ER-NER	1st May 2013 to 4th May 2013	00-17	475	35	440	230	210		Revised due to change in load generation Balance.	
		23-24			440		210			
	5th May 2013 to 8th May 2013	00-17	525	35	490	230	260			
		23-24	525		490		260			
	9th May 2013 to 14th May 2013	00-17	575	35	540	230	310			
		23-24	575		540		310			
	15th May 2013 to 19th May 2013	00-24	525	35	490	230	260			Revised due to tower collapse of 400 kV Maithon-Koderma D/C line
	20th May 2013 to 21st May 2013	00-24	525	35	490	230	260			Revised due to cancellation of shutdown of 400 kV Binaguri-Bonagaigan ckt-1.
	22nd May 2013 to 29th May 2013	00-08,	525	35	490	230	260			
		18-24	400		365		135			
30th May 2013 to 31st May 2013	00-24	525	35	490	230	260				
NER-ER	1st May 2013 to 31st May 2013	00-17	520	100	420	0	420			
		23-24			320		220			

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S1-S2	1st May 2013 to 31st May 2013	00-24	5400	200	5200	4000	1200		Revised due to Non-commissioning Kudamkulam unit-1.
Import of Punjab	1st May 2013 to 4th May 2013	00-24	5400	300	5100	3243	1857		
	5th May 2013 to 31st May 2013	00-24	5600	300	5300	3350	1950		
Import TTC for DD & DNH	1st May 2013 to 31st May 2013	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st May 2013 to 31st May 2013	00-17, 23-24	9000	200	8800	6870	1930		Revised due to change in power flow pattern consequent to upgradation of Bina-Gwalior-Agra D/C section from 400 kV to 765 kV and other new generating units addition.
		17-23	9500		9300		2430		
	4th May 2013	00-10	9000	200	8800	6870	1930		Revised due to emergency shutdown of 400 kV Raipur-Wardha ck2 on 4th May 2013
		10-16	8550		8350		1480		
		16-17	9000		8800		1930		
		17-23	9500		9300		2430		
	5th May 2013 to 31st May 2013	00-17, 23-24	9000	200	8800	6870	1930		
		17-23	9500		9300		2430		

- 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 :
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 200 MW can be transferred to SR if injection point is South odisha.
* Would be reviewed after completion of augmentation works at 765 kV Agra

** additional 300 MW can be transferred to SR if injection point is South odisha.

Δ. includes 1500 MW on the dedicated Mundra-Mohindergarh HVDC bipole of M/s Adani Power Limited which is scheduled separately from the generation at stage-III of APL Mundra (3*660 MW).

1. WR-NR Total Transfer capability will be reduced to 3100 MW in case of outage of any one of the following sections:

- 765 kV Agra-Jhatikara
- One of the 765/400 kV 1500 MVA ICT at Agra
- 765 kV Gwalior-Agra one circuit
- 765 kV Bina-Gwalior one circuit

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Limiting Constraints

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.
WR-NR	(n-1) contingency of 765/400 kV ICT at Agra
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusauli
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-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 Rourkela-Talcher*
SR-ER	
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 D/C line, 400kV Hosur-Salem & 400kV Somanahalli-Salem SC line.
Import of Punjab	(n-1) contingency of ICT at Patiala/Moga
W3 zone Injection	(n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section

*Primary constraints

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)	Changes in TTC w.r.t. Last Revision	Comments
ER									
NR¹ #	1st May 2013 to 8th May 2013	00-17 23-24	4600*	500	4100	3200	900		LTA revised due to commissioning of CGPL Unit-50
		17-23			4100		900		
	9th May 2013 to 12th May 2013	00-17 23-24	8700 ^Δ	800	7900 ^Δ	4700 ^Δ	3200		1. Revised due to upgradation of 400 kV Bina-Gwalior-Agra D/C to 765 kV. 2. Revised due to commissioning of 765 kV Agra-Jhatikara. 3. Increase in hydro generation pattern in ER.
		17-23			7900 ^Δ		3200		
	13th May 2013 to 14th May 2013	00-07 20-24	8700 ^Δ	800	7900 ^Δ	4700 ^Δ	3200		Revised due to shutdown of 400 kV Zerda-Bhinmal.
		07-20'	8450 ^Δ		7650 ^Δ		2950		
	15th May 2013 to 16th May 2013	00-07 20-24	8300 ^Δ	800	7500 ^Δ	4700 ^Δ	2800		1. Revised due to shutdown of 400 kV Zerda-Bhinmal. 2. Revised due to tower collapse of 400 kV Maithon-Koderma D/C line.
		07-20'	8050 ^Δ		7250 ^Δ		2550		
	17th May 2013 to 20th May 2013	00-24	8300 ^Δ	800	7500 ^Δ	4700 ^Δ	2800		Revised due to tower collapse of 400 kV Maithon-Koderma D/C
	21st May 2013	00-07, 20-24	8300 ^Δ	800	7500 ^Δ	4700 ^Δ	2800		Revised due to shutdown of 765 kV Agra-Jhatikara.
07-20'		5700 ^Δ	600	5100 ^Δ	4700 ^Δ	400	2600		
22nd May 2013 to 31st May 2013	00-24	8300 ^Δ	800	7500 ^Δ	4700 ^Δ	2800			
NER	1st May 2013 to 4th May 2013	00-17 23-24	475	35	440	230	210		Revised due to change in load generation Balance.
		17-23	475		440	230	210		
	5th May 2013 to 8th May 2013	00-17 23-24	525	35	490	230	260		Revised due to increase in hydro generation.
		17-23	525		490	230	260		
	9th May 2013 to 14th May 2013	00-17 23-24	575	35	540	230	310		Revised due to increase in hydro generation pattern.
		17-23	575		540	230	310		
	15th May 2013 to 19th May 2013	00-24	525	35	490	230	260		Revised due to tower collapse of 400 kV Maithon-Koderma D/C line.
	20th May 2013 to 21st May 2013	00-24	525	35	490	230	260		Revised due to cancellation of shutdown of 400 kV Binaguri-Bonagaigan ckt-1.
22nd May 2013 to 29th May 2013	00-08, 18-24	525	35	490	230	260		Revised due to shutdown of 400 kV Binaguri-Bonagaigan ckt-1	
	08-18'	400		365		135			
30th May 2013 to 31st May 2013	00-24	525	35	490	230	260			
WR									
SR	1st May 2013 to 2nd May 2013	00-05 10-19	2000	0	2000	1112	888		Review of TTC due to change in Load Generation scenario and also change in LTA quantum.
		05-10 19-24	2000		2000		888		
	3rd May 2013 to 8th May 2013	00-05 10-19	2000	0	2000	1112	888		
		05-10 19-24	2000 ^Δ		2000 ^Δ		888 ^Δ		
9th May 2013 to 31st May 2013	00-05 10-19	2200**	0	2200**	1112	1088**		Revised due to change in Load Generation scenario	
	05-10 19-24	2200**		2200**		1088**			

* Would be reviewed after completion of augmentation works at 765 kV Agra

Δ additional 200 MW can be transferred to SR if injection point is South odisha.

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Δ. includes 1500 MW on the dedicated Mundra-Mohindergarh HVDC bipole of M/s Adani Power Limited which is scheduled separately from the generation at stage-III of APL Mundra (3*660 MW).

I. WR-NR Total Transfer capability will be reduced to 3100 MW in case of outage of any one of the following sections:

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- One of the 765/400 kV 1500 MVA ICT at Agra
- 765 kV Gwalior-Agra one circuit
- 765 kV Bina-Gwalior one circuit

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)	Changes in TTC w.r.t. Last Revision	Comments
NR	1st May 2013 to 8th May 2013	00-17	2500	200	2300	286	2014		
		23-24	2600		2400		2114		
	9th May 2013 to 31st May 2013	00-17	3500	200	3300	286	3014		
		17-23	3600		3400		3114		
NER	1st May 2013 to 31st May 2013	00-17	520	100	420	0	420		
		23-24	320		220		220		
WR									
SR	1st May 2013 to 31st May 2013	00-17	1700	0	1700	197	1503		
		23-24	1700		1700		1503		

Limiting Constraints

NR	Import	(n-1) contingency of 400 kV Farakka-Malda* (n-1) contingency of 765/400 kV ICT at Agra*
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Allahabad-Pusauli
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 – Sarujai I* (n-1) contingency of 400 kV Balipara-Bongaigaon-I
SR	Import	Bhadrawati HVDC back to back capacity (n-1) contingency of 400 kV Rourkela-Talcher*
	Export	

ASSUMPTIONS IN BASECASE

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
I	NORTHERN REGION				
1	Punjab	5637	5311	2111	2126
2	Haryana	5363	5014	3289	3289
3	Rajasthan	6574	5912	3466	3472
4	Delhi	4605	3932	1416	1416
5	Uttar Pradesh	10824	10831	6163	5976
6	Jammu & Kashmir	1825	1671	604	592
7	Uttarakhand	1476	1081	757	673
8	Himachal Pradesh	1043	943	590	493
9	Chandigarh	227	192	0	0
10	ISGS			16916	14627
	Total NR	37574	34888	35312	32663
II	EASTERN REGION				
1	West Bengal	6658	5280	4836	3678
2	Jharkhand	1035	715	483	541
3	Orissa	3597	2530	2451	1611
4	Bihar	1743	1430	101	101
5	Damodar Valley Corporation	2461	2310	2954	2954
6	Sikkim	45	45	0	0
7	Bhutan	112	112	275	260
8	ISGS			7384	5854
	Total ER	15651	12422	18484	14999
III	WESTERN REGION				
1	Chattisgarh	2977	2132	2518	1985
2	Madhya Pradesh	7112	4894	3601	2802
3	Maharashtra	15798	12916	13113	9454
4	Gujarat	10470	8369	10918	7764
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	43213	34001
IV	SOUTHERN REGION				
1	Andhra Pradesh	10283	9413	7290	6560
2	Tamil Nadu	10813	9100	6050	5408
3	Karnataka	8503	7453	4779	4233
4	Kerala	3254	2414	2007	794
5	Pondy	313	241		
6	Goa	84	84		
7	ISGS			10846	10049
	Total SR	33250	28705	30972	27044
V	NORTH-EASTERN REGION				
1	Manipur	110	203	0	0
2	Meghalaya	290	53	95	80
3	Mizoram	75	84	4	0
4	Nagaland	120	168	8	6
5	Assam	1320	880	190	180
6	Tripura	240	1537	85	85
7	Arunachal Pradesh	110	924	0	0
8	ISGS	0	0	1013	577
	Total NER	2265	3848	1395	928
	Total All India	126297	109032	129376	109635