# National Load Despatch Centre Total Transfer Capability for June 2013

# 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 June 2013 to 30th June 2013	00-24	2500	500	2000	286	1714		Revised due to commissioning of 765 kV Agra-Jhatikara.
	1st June 2013 to 9th June 2013	00-24	5700 <sup>∆</sup>	500	$5200^{\Delta}$	$2787^{\Delta}$	2413		Revised due to commissioning of 765 kV Agra-Jhatikara.
	10th June 2013	00-08'	5700 <sup>∆</sup>	500	$5200^{\Delta}$	$2787^{\Delta}$	2413		Revised due to deferrment of 765
	Total June 2013	08-24'	5700 <sup>∆</sup>	500	$5200^{\Delta}$	$2787^{\Delta}$	2413		kV Agra-Jhatikara Shutdown.
WR-NR <sup>1</sup>	11th June 2013	00-07'	5700 <sup>∆</sup>	500	$5200^{\Delta}$	$2787^{\Delta}$	2413		
	Tith June 2013	07-24'	3100 <sup>Δ</sup>	300	$2800^{\Delta}$	$2787^{\Delta}$	13		Revised due to Shutdown of 765 kV
	12th June 2013	00-24	3100 <sup>Δ</sup>	300	$2800^{\Delta}$	$2787^{\Delta}$	13		Agra-Jhatikara.
	13th June 2013 to 30th June 2013	00-24	5700 <sup>∆</sup>	500	$5200^{\Delta}$	$2787^{\Delta}$	2413		Revised due to commissioning of 765 kV Agra-Jhatikara.
	1st June 2013 to	00-17	1000		800		800		
NR-ER	30th June 2013	23-24 17-23	1100	200	900	0	900		
		00-09	3600	300	3300	1913	1387		
	1st June 2013	09-18'	3000	300	2700	1913	787		Revised due to shutdown of 400 kV Kahalgaon-Biharshariff 1
		18-24	3600	300	3300	1913	1387		Kanagaon Binaranam 1
	2nd June 2013	00-24	3600 3600	300 300	3300 3300	1913 1913	1387 1387		
	3rd June 2013	09-18'	3000	300	2700	1913	787		Revised due to shutdown of 400 kV
		18-24	3600	300	3300	1913	1387		Kahalgaon-Biharshariff 2
ER-NR	4th June 2013	00-09 18-24	3600	300	3300	1913	1387		Revised due to shutdown of 400 kV Kahalgaon-Biharshariff ckt-1.
		09-18'	3000	300	2700	1913	787		<u> </u>
	5th June 2013	18-24	3600	300	3300	1913	1387		Revised due to shutdown of 400 kV Kahalgaon-Biharshariff ckt-1.
		09-18' 00-17	3000	300	2700	1913	787		<u> </u>
	6th June 2013 to 30th June 2013	23-24	3600	300	3300	1913	1387		
		17-23				1913	1387		
W3-ER	1st June 2013 to 30th June 2013	00-24	1650	300	1350	0	1350		
ER-W3	1st June 2013 to 30th June 2013	00-24	1000	300	700	700	0		
an	1st June 2013 to 15th June 2013	00-24	1000	0	1000	1000	0		Revised due to change in LTA/MTOA quantum.
WR-SR	16th June 2013 to 30th June 2013	00-24	1000	0	1000	1000	0		
SR-WR	1st June 2013 to 30th June 2013	00-24	1000	0	1000	0	1000		
	1st June 2013 to	00-05 10-19	1000	0	1000	110	888		Revised considering present loading of
ER-SR	12th June 2013	05-10 19-24	1000	0	1000	112	888		400KV Rourkela-Talcher D/C
	13th June 2013	00-08 19-24	1000	0	1000	112	888		Revised due to Emergency shutdown of Talcher-Kolar HVDC Pole-2.
		08-19'	700		700	700	0		
	14th June 2013 to	00-07 18-24	1000	0	1000	112	888		Revised due to shutdown of 400 kV
	15th June 2013	07-18'	600		600		488		Rourkela-Talcher ckt-1/2
	16th June 2013 to	00-07	1000		1000		388		Revised due to shutdown of 400 kV
	19th June 2013	18-24		0		612			Rourkela-Talcher ckt-1/2
	204 1 2012	07-18'	1000		1000		388		
	20th June 2013 to 30th June 2013	10-19 05-10	1000	0	1000	612	388		
	19-24								

#### National Load Despatch Centre Total Transfer Capability for June 2013

Issue Date: 21/06/2013 Issue Time: 1830 hrs Revision No. 14

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

	# against any corridor indicates that revision has been done for this corridor    Long Term   Margin   Changes											
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			
SR-ER	1st June 2013 to 30th June 2013	00-17 23-24 17-23	700 700	0	700 700	197	503					
		17-23	700		700		303					
	1st June 2013 to 8th June 2013	00-07 18-24	575	35	540	230	310		Revised due to shutdown of 400 kV Binaguri-Bongoigaon ckt 2			
	045 Torre 2012 4	07-18'	400		365	230	135					
	9th June 2013 to 11th June 2013	00-24	575	35	540	230	310					
	12th June 2013 to	18-24	575	35	540	230	310		Revised due to shutdown of 400			
	13th June 2013	08-18'	400	33	365	230	135		kV Binaguri-Bongoigaon ckt 2			
ER-NER#	14th June 2013 to 15th June 2013	00-24	575	35	540	230	310		Revised due to cancellation of 400 kV Binaguri-Bongaigaon ckt-2 shutdown.			
EK-NEK#	16th June 2013	00-24	575	35	540	230	310		Revised due to cancellation of 400 kV Binaguri-Bongaigaon ckt-2 shutdown.			
	17th June 2013 to 21st June 2013	00-24	575	35	540	230	310					
	22nd June 2013 to	00-08	575		540	230	310		Revised due to shutdown of 400			
	24th June 2013	18-24		35				100	kV Binaguri-Bongoigaon ckt-2			
		08-18' 00-08	400		365	230	135	175				
	25th June 2013 to	18-24	575	35	540	230	310		Revised due to shutdown of 400			
	30th June 2013	08-18'	400	55	365	230	135	175	kV Binaguri-Bongoigaon ckt-1			
	1st June 2013 to	00-17	520		420		420					
NER-ER	30th June 2013	23-24		100		0						
		17-23	320		220		220					
g1 g2	1st June 2013 to 15th June 2013	00-24	5400	200	5200	3800	1400		Revised due to Non-commissioning Kudamkulam unit-1 and change in LTA quantum as Talcher unit-4 has			
S1-S2	16th June 2013 to 30th June 2013	00-24	5400	200	5200	4500	700		gone under annual maintenance from 00:00 Hrs of 27.05.2013 to 30.06.2013.			
Import of Punjab	1st June 2013 to 30th June 2013	00-24	5600	300	5300	3475	1825		LTA/MTOA quantum revised due to change in Allocation.			
Import TTC for DD & DNH	1st June 2013 to 30th June 2013	00-24	980	0	980	LTA and MTO.						
		00-08	9000		8800		1970					
	1st June 2013	08-17' 23-24	8000	200	7800	6830	970		Revised due to shutdown of 400 kV			
W3 zone Injection		17-23	8500		8300		1470		Raipur-Wardha D/C from 01st June			
		00-17	8000		7800		970		2013 to 2nd June 2013			
	2nd June 2013	17-19	8500 9500	200	8300 9300	6830	1470 2470					
		19-23 23-24	9000		8800		1970					
	3rd June 2013 to 15th June 2013	00-17, 23-24	9000	200	8800	6830	1970					
		17-23	9500		9300		2470					
	16th June 2013 to 30th June 2013	00-17, 23-24	9000	200	8800	7630	1170					
	30th Julic 2013	17-23	9500		9300		1670					

<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:

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

g) In cases where TTC is revised on account of any transmission element shutdown, the revised TTC shall be effective till the time the transmission element under shutdown is restored back.

### National Load Despatch Centre Total Transfer Capability for June 2013

Issue Date: 21/06/2013 Issue Time: 1830 hrs Revision No. 14

# 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)	Short Term Open Access	Changes in TTC w.r.t. Last Revision	Comments
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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).

#### 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

#### **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	Outage in 400 kV Purnea-Muzaffarpur Section
W3-ER	(n-1) contingency of either 400 kv Mejia-Maithon or (n-1) contingency of 400 kv MPL -maithon
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
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

<sup>\*</sup>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									
		00-09	9300 <sup>∆</sup>	800	$8500^{\Delta}$	4300	4200		
	1st June 2013	09-18'	$8700^{\Delta}$	800	7900 <sup>∆</sup>	4300	3600		Revised due to shutdown of 400 kV Kahalgaon-Biharshariff 1
		18-24	9300∆	800	8500 <sup>∆</sup>	4300	4200		
	2nd June 2013	00-24	$9300^{\Delta}$	800	8500 <sup>∆</sup>	4300	4200		
		00-09	9300 <sup>∆</sup>	800	$8500^{\Delta}$	4300	4200		Revised due to shutdown of 400 kV
	3rd June 2013	09-18'	$8700^{\Delta}$	800	$7900^{\Delta}$	4300	3600		Kahalgaon-Biharshariff 2
		18-24	$9300^{\Delta}$	800	$8500^{\Delta}$	4300	4200		
	4th June 2013	00-09 18-24	$9300^{\Delta}$	800	$8500^{\Delta}$	4300	4200		Revised due to shutdown of 400 kV Kahalgaon-Biharshariff 1
NR <sup>1</sup>		09-18'	8700 <sup>∆</sup>	800	$7900^{\Delta}$	4300	3600		Kanaigaen Binaisnaini 1
	5th June 2013	00-09 18-24	$9300^{\Delta}$	800	8500 <sup>∆</sup>	4300	4200		Revised due to shutdown of 400 kV Kahalgaon-Biharshariff 1
		09-18'	$8700^{\Delta}$	800	$7900^{\Delta}$	4300	3600		
	6th June 2013 to 09th June 2013	00-24	$9300^{\Delta}$	800	8500 <sup>∆</sup>	4300 <sup>∆</sup>	4200		
	10th June 2013	00-08'	$9300^{\Delta}$	800	$8500^{\Delta}$	$4300^{\Delta}$	4200		Revised due to deferrment of 765 kV
		08-24'	9300 <sup>∆</sup>	800	$8500^{\Delta}$	4300	4200		Agra-Jhatikara Shutdown.
	11th June 2013	00-07'	9300 <sup>∆</sup>	800	$8500^{\Delta}$	$4300^{\Delta}$	4200		
		07-24'	$6700^{\Delta}$	600	$6100^{\Delta}$		1400		Revised due to Shutdown of 765 kV
	12th June 2013	00-24	$6700^{\Delta}$	600	$6100^{\Delta}$	$4300^{\Delta}$	1400		Agra-Jhatikara.
	13th June 2013 to 30th June 2013	00-24	$9300^{\Delta}$	800	8500 <sup>∆</sup>	$4300^{\Delta}$	4200		
	1st June 2013 to 08th June 2013	00-07 18-24	575	35	540	230	310		Revised due to shutdown of 400 kV Binaguri-Bongoigaon ckt 2
		07-18'	400		365	230	135		
	9th June 2013 to 11th June 2013	00-24	575	35	540	230	310		
	12th June 2013 to 13th June 2013	00-08 18-24	575	35	540	230	310		Revised due to shutdown of 400 kV Binaguri-Bongoigaon ckt 2
		08-18'	400		365	230	135		0 0
_	14th June 2013 to 15th June 2013	00-24	575	35	540	230	310	175	Revised due to cancellation of 400 kV Binaguri-Bongaigaon ckt-2 shutdown.
	16th June 2013	00-24	575	35	540	230	310		Revised due to cancellation of 400 kV Binaguri-Bongaigaon ckt-2 shutdown
	17th June 2013 to 21st June 2013	00-24	575	35	540	230	310		
	22nd June 2013 to 24th June 2013	00-08 18-24	575	35	540	230	310		Revised due to shutdown of 400 kV Binaguri-Bongoigaon ckt-2
	2.0.3000 2013	08-18'	400		365	230	135	175	Dongorguon ere 2
	25th June 2013 to	00-08 18-24	575	35	540	230	310		Revised due to shutdown of 400
	30th June 2013	08-18'	400		365	230	135	175	kV Binaguri-Bongoigaon ckt-1
WR									

#### **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
	1st June 2013 to 15th June 2013	00-05 10-19	2000	0	2000	1112	888		Revised due to Non-commissioning Kudamkulam unit-1 and change in LTA
		05-10 19-24	2000	0	2000	1112	888		quantum.
	13th June 2013	00-08 19-24	2000	0	2000	1112	888		Revised due to Emergency shutdown of Talcher-Kolar HVDC Pole-2.
		08-19'	1700		1700	1700	0		of falcher-kolar fivbe role-2.
SR	14th June 2013 to	00-07 18-24	2000	0	2000	1112	888		Revised due to shutdown of 400 kV Rourkela-Talcher ckt-1/2
	15th June 2013	07-18'	1600		1600		488	400	Nour Keia-Taichei CKt-1/2
	16th June 2013 to 30th June 2013	00-07 18-24	2000	0	2000	1612	388		Revised due to shutdown of 400 kV
	Soul Julie 2015	07-18'	1600		1600		0	400	Rourkela-Talcher ckt-1/2
	16th June 2013 to	00-05 10-19	2000	0	2000	1612	388		
3	30th June 2013	05-10 19-24	2000	0	2000		388		

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

# **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 June 2013 to 30th June 2013	00-17 23-24	3500	700	2800	286	2514		
	30th Julie 2013	17-23	3600		2900		2614		
NER	1st June 2013 to	00-17 23-24	520	100	420	0	420		
	30th June 2013	17-23	320		220		220		
WR									
WK									
SR	1st May 2013 to 31st May 2013	00-17 23-24	1700	0	1700	197	1503		
	51st May 2013	17-23	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 400 kV Allahabad-Pusauli
	Import	High Loading of 220 kV BTPS-Agia
		(n-1) contingency of 400 kV Balipara – Bongaigaon-I
NER		(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
	Import	(n-1) contingency of 400 kV Rourkela-Talcher*
SR		Bhadrawati HVDC B/B link capacity.
	Export	Bhadrawati HVDC B/B link capacity.

<sup>\*</sup>Primary constraints

# **ASSUMPTIONS IN BASECASE**

Month: June 2013

		Loa	ad	Generation			
0 N =	N		Off Peak				
S.No.	Name of State/Area	Peak Load (MW)	Load (MW)	Peak (MW)	Off Peak (MW)		
ı	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	C		
7	Bhutan	112	112	275	260		
8	ISGS			7384	5854		
	Total ER	15651	12422	18484	14999		
Ш	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	100.10			
6	Daman and Diu	260	181				
7	Dadra and Nagar Haveli	612	479				
8	ISGS	012	4/3	13063	11996		
	Total WR	37556	29169	43213	34001		
	Total WIX	37330	23103	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	2414	2007	7 3-		
6	Goa	84	84				
7	ISGS	04	04	10846	10049		
'		22052	90705				
	Total SR	33250	28705	30972	27044		
v	NORTH-EASTERN REGION						
1	Manipur Manipur	110	203	0	(		
2	Meghalaya	290	53	95	80		
3	Mizoram	75	84	4			
4					(		
	Nagaland	120	168	100	100		
5	Assam	1320	880 1537	190	180		
6	Tripura	240	1537	85	85		
7	Arunachal Pradesh	110	924	1012	( E7		
0				1013	577		
8	ISGS Total NEP	0	2040				
8	Total NER	2265	3848	1395	928		