

**National Load Despatch Centre  
Total Transfer Capability for July 2013**

Issue Date: 12/07/2013

Issue Time: 1200 hrs

Revision No. 9

# 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	01/07/2013 to 31/07/2013	00-24	2500	500	2000	286	1714		Revised due to commissioning of 765 kV Agra-Jhatikara.
WR-NR <sup>1</sup>	01/07/2013 to 09/07/2013	00-24	5700 <sup>^</sup>	500	5200 <sup>^</sup>	2787 <sup>^</sup>	2413		Revised due to commissioning of 765 kV Agra-Jhatikara.
	10/07/2013 to 31/07/2013	00-24	5700 <sup>^</sup>	500	5200 <sup>^</sup>	2937 <sup>^</sup>	2263		Revised due to Allocation of 150 MW additional power to J&K.
NR-ER	01/07/2013 to 31/07/2013	00-17 23-24	1000	200	800	0	800		
		17-23	1100		900		900		
ER-NR	01/07/2013 to 31/07/2013	00-17 23-24	4000	500	3500	2189	1311		
		17-23					1311		
W3-ER	01/07/2013 to 31/07/2013	00-24	1650	300	1350	0	1350		
ER-W3	01/07/2013 to 31/07/2013	00-24	1000	300	700	700	0		
WR-SR	01/07/2013 to 06/07/2013	00-24	1000	0	1000	1000	0		
	07/07/2013 to 27/07/2013	00-24	1000	0	1000	827	173		Margin revised due to Non-Utilization of MTOA by KSK Mahanadi as communicated vide KSK Mahanadi letter no. SRLDC, BLR/NRKN/1500101/1426.
	28/07/2013 to 31/07/2013	00-24	1000	0	1000	1000	0		
SR-WR	01/07/2013 to 31/07/2013	00-24	1000	0	1000	0	1000		
ER-SR	01/07/2013 to 06/07/2013	00-05 10-19	1000*	0	1000*	612	388*		Revised due to Maintenance schedule of Talcher Stage-II Unit-III.
		05-10 19-24	1000*		1000*		388*		
	07/07/2013 to 09/07/2013	00-05 10-19	1000*	0	1000*	385	615*		Margin revised due to Non-Utilization of MTOA by KSK Mahanadi as communicated vide KSK Mahanadi letter no. SRLDC, BLR/NRKN/1500101/1426.
		05-10 19-24	1000*		1000*		615*		
	10/07/2013 to 11/07/2013	00-05 10-19	1000	0	1000	385	615		Revised due to revival of Talcher Stage-2 generation.
		05-10 19-24	1000		1000		615		
	12/07/2013 to 13/07/2013	00-09 18-24	1000	0	1000	385	615		Revised due to shutdown of 400 kV Talcher-Rourkela ckt-I.
		09-18'	800		800		415		
	14/07/2013 to 15/07/2013	00-05 10-19	1000	0	1000	385	615		
		05-10 19-24	1000		1000		615		
	16/07/2013 to 27/07/2013	00-05 10-19	1000*	0	1000*	385	615*		
		05-10 19-24	1000*		1000*		615*		
	28/07/2013 to 31/07/2013	00-05 10-19	1000*	0	1000*	612	388*		
		05-10 19-24	1000*		1000*		388*		
SR-ER	01/07/2013 to 31/07/2013	00-17 23-24	700	0	700	197	503		
		17-23	700		700		503		

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ER-NER#	01/07/2013 to 06/07/2013	00-17	590	35	555	230	325			
		23-24			475		245			
	07/07/2013 to 12/07/2013	00-08	590	50	540	230	310		Revised due to shutdown of 400 kV Balipara – Bongaigaon I	
		23-24			230		0			
		08-17'	280		460		230			
	13/07/2013'	00-08	590	50	540	230	310	310	Revised due to shutdown of 400 kV Balipara – Bongaigaon II	
		23-24			230		0			
		08-17'	280		460		230			
	14/07/2013 to 31/07/2013	00-17	590	50	540	230	310			
		23-24			460		230			
	NER-ER#	01/07/2013.	00-17	570	100	470	0	470		
			23-24			255		255		
02/07/2013 to 06/07/2013		00-17	570	100	470	0	470		Revised due to change in Load Generation balance in North-Eastern Region.	
		23-24			400		400			
07/07/2013 to 12/07/2013		00-08	570	100	470	0	470		Revised due to shutdown of 400 kV Balipara – Bongaigaon I	
		23-24			60		60			
		08-17'	110		400		400			
13/07/2013'		00-08	570	100	470	0	470		Revised due to shutdown of 400 kV Balipara – Bongaigaon ckt-II	
		23-24			60		60			
		08-17'	110		400		400			
14/07/2013 to 31/07/2013		00-17	570	100	470	0	470			
		23-24			400		400			
S1-S2		01/07/2013 to 31/07/2013	00-24	5400	200	5200	4600	600		Revised due to Non- Commissioning of Kudankulam.
Import of Punjab		01/07/2013 to 31/07/2013	00-24	5600	300	5300	3475	1825		Revised due to change in LTA/MTOA quantum.
Import TTC for DD & DNH		01/07/2013 to 31/07/2013	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection		01/07/2013 to 10/07/2013	00-17, 23-24	9000	200	8800	7630	1170		7630 MW corresponds to maximum effective LTA/ MTOA from W3. Export Margin from W3 would vary as per the maintenance schedule of generators in the zone
	17-23		9500	9300		1670				
	11/07/2013 to 27/07/2013	00-17, 23-24	9000	200	8800	6674	2126		Margin revised due to Non-Utilization of MTOA by KSK Mahanadi as communicated vide KSK Mahanadi letter no. SRLDC, BLR/NRKN/1500101/1426.	
		17-23	9500		9300		2626			
	28/07/2013 to 31/07/2013	00-17, 23-24	9000	200	8800	7074	1726			
		17-23	9500		9300		2226			

\* additional 350 MW can be transferred to SR if injection point is South odisha.

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, k)KSK Mahanadi, l) DB Power, m) KWPCCL

g) In case the proposed shutdown is not availed by intending agency on the day of shutdown due to which TTC is revised, the TTC will be restored back to original TTC in real-time.

h) The TTC revision due to shutdown shall be applicable till the line is restored back.

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^, includes 1500 MW on the dedicated Mundra-Mohinderghar 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. (A) WR-NR Total Transfer capability will be reduced to 5200 MW in case of outage of any one of the following sections:**

- 765 kV Agra-Jhatikara
- 765 kV Agra-Meerut
- One of the 765/400 kV 1500 MVA ICT at Agra

**(B) WR-NR Total Transfer capability will be reduced to 3100 MW in case of outage of any one of the following sections:**

- 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 kV Agra-Jhatikara
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusauli
ER-NR	(n-1) contingency of 400 kV Purnea-Muzaffarpur
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 and ER-SR Inter-Regional link.
SR-ER	
ER-NER	(n-1) contingency of 400/220 kV,315 MVA ICT at Misa* (n-1) contingency of 400 kV Binaguri-Bongaigaon
NER-ER	(n-1) contingency of 400/220 kV,315 MVA ICT at Misa* (n-1) contingency of 400 kV Purnea-Muzaffarpur
S1-S2	(n-1) contingency of 400 kV Kolar-Hosur D/C line, 400kV Hosur-Salem S/C and 400kV Somanahalli-Salem S/C line.
Import of Punjab	(n-1) contingency of ICT at Patiala/Moga
W3 zone Injection	(n-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	
<b>ER</b>										
<b>NR<sup>1</sup></b>	01/07/2013 to 09/07/2013	00-17 23-24	9700 <sup>^</sup>	1000	8700 <sup>^</sup>	4976 <sup>^</sup>	3724		Revised due to commissioning of 765 kV Agra-Jhatikara.	
		17-23	9700 <sup>^</sup>		8700 <sup>^</sup>		3724			
	10/07/2013 to 31/07/2013	00-17 23-24	9700 <sup>^</sup>	1000	8700 <sup>^</sup>	5126 <sup>^</sup>	3574			
		17-23	9700 <sup>^</sup>		8700 <sup>^</sup>		3574			
<b>NER #</b>	01/07/2013 to 06/07/2013	00-17 23-24	590	35	555	230	325			
		17-23	510		475		245			
	07/07/2013 to 12/07/2013	00-08 23-24	590	50	540	230	310			
		08-17'	280		230		0			
		17-23	510		460		230			
	13/07/2013'	00-08 23-24	590	50	540	230	310	310		
		08-17'	280		230		0			
		17-23	510		460		230			
	14/07/2013 to 31/07/2013	00-17 23-24	590	50	540	230	310			
		17-23	510		460		230			
	<b>WR</b>									
	<b>SR</b>	01/07/2013 to 06/07/2013	00-05 10-19	2000*	0	2000*	1612	388*		
05-10 19-24			2000*	2000*		388*				
07/07/2013 to 09/07/2013		00-05 10-19	2000*	0	2000*	1212	788*		Margin revised due to Non-Utilization of MTOA by KSK Mahanadi as communicated vide KSK Mahanadi letter no. SRLDC, BLR/NRKN/1500101/1426.	
		05-10 19-24	2000*		2000*		788*			
10/07/2013 to 11/07/2013		00-05 10-19	2000	0	2000	1212	788		Revised due to revival of Talcher Stage-2 generation.	
		05-10 19-24	2000		2000		788			
12/07/2013 to 13/07/2013		00-09 18-24	2000	0	2000	1212	788		Revised due to shutdown of 400 kV Talcher-Rourkela ckt-I.	
		09-18'	1800		1800		588			
14/07/2013 to 15/07/2013		00-05 10-19	2000	0	2000	1212	788			
		05-10 19-24	2000		2000		788			
16/07/2013 to 27/07/2013		00-05 10-19	2000*	0	2000*	1212	788*			
		05-10 19-24	2000*		2000*		788*			
28/07/2013 to 31/07/2013		00-05 10-19	2000*	0	2000*	1612	388*			
		05-10 19-24	2000*		2000*		388*			

\* additional 350 MW can be transferred to SR if injection point is South odisha.

<sup>^</sup>. 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. (A) WR-NR Total Transfer capability will be reduced to 5200 MW in case of outage of any one of the following sections:

- 765 kV Agra-Jhatikara
- 765 kV Agra-Meerut
- One of the 765/400 kV 1500 MVA ICT at Agra

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

- 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	
ER										
NR	01/07/2013 to 31/07/2013	00-17 23-24	3500	700	2800	286	2514		Revised due to commissioning of 765 kV Agra-Jhatikara.	
		17-23	3600		2900		2614			
NER #	01/07/2013.	00-17 23-24	570	100	470	0	470			
		17-23	355		255		255			
	02/07/2013 to 06/07/2013	00-17 23-24	570	100	470	0	470		Revised due to change in Load Generation balance in North-Eastern Region.	
		17-23	500		400		400			
	07/07/2013 to 12/07/2013	00-08 23-24	570	100	470	0	470		Revised due to shutdown of 400 kV Balipara – Bongaigaon I	
		08-17'	110		60		60			
		17-23	500		100		400			400
	13/07/2013'	00-08 23-24	570	100	470	0	470		Revised due to shutdown of 400 kV Balipara – Bongaigaon ckt-II.	
		08-17'	110		60		60			460
		17-23	500		100		400			400
	13/07/2013 to 31/07/2013	00-17 23-24	570	100	470	0	470			
		17-23	500		400		400			
WR										
SR	01/07/2013 to 31/07/2013	00-17 23-24	1700	0	1700	197	1503			
		17-23	1700		1700		1503			

#### Limiting Constraints

NR	Import	(n-1) contingency of 400 kV Purnea-Muzaffarpur (n-1) contingency of 765 kV Agra-Jhatikara
	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	(n-1) contingency of 400/220 kV,315 MVA ICT at Misa (n-1) contingency of 400 kV Binaguri-Bongaigaon
	Export	(n-1) contingency of 400/220 kV,315 MVA ICT at Misa (n-1) contingency of 400 kV Purnea-Muzaffarpur
SR	Import	(n-1) contingency of 400 kV Rourkela-Talcher Bhadrawati HVDC B/B link capacity
	Export	Bhadrawati HVDC B/B link capacity

## ASSUMPTIONS IN BASECASE

Month: July 2013

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
<b>I</b>	<b>NORTHERN REGION</b>				
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
	<b>Total NR</b>	<b>37574</b>	<b>34888</b>	<b>35312</b>	<b>32663</b>
<b>II</b>	<b>EASTERN REGION</b>				
1	West Bengal	6500	4516	4738	4024
2	Jharkhand	1100	750	603	354
3	Orissa	3400	2760	2611	2266
4	Bihar	1800	1400	0	0
5	Damodar Valley Corporation	2309	2209	3404	3404
6	Sikkim	40	40	0	0
7	Bhutan	111	111	1326	1326
8	ISGS			5971	5971
	<b>Total ER</b>	<b>15260</b>	<b>11786</b>	<b>18653</b>	<b>17345</b>
<b>III</b>	<b>WESTERN REGION</b>				
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
	<b>Total WR</b>	<b>37556</b>	<b>29169</b>	<b>43213</b>	<b>34001</b>
<b>IV</b>	<b>SOUTHERN REGION</b>				
1	Andhra Pradesh	9995	9192	6432	5882
2	Tamil Nadu	11922	9480	7337	5117
3	Karnataka	7600	6042	4850	3856
4	Kerala	3363	2500	2116	1320
5	Pondy	310	250		
6	Goa	84	84		
7	ISGS			10549	9990
	<b>Total SR</b>	<b>33274</b>	<b>27548</b>	<b>31284</b>	<b>26165</b>
<b>V</b>	<b>NORTH-EASTERN REGION</b>				
1	Manipur	103	88	0	0
2	Meghalaya	280	195	162	76
3	Mizoram	67	57	6	6
4	Nagaland	92	84	10	10
5	Assam	808	670	231	231
6	Tripura	190	145	10	63
7	Arunachal Pradesh	100	78	0	0
8	ISGS	0	0	927	829
	<b>Total NER</b>	<b>1640</b>	<b>1317</b>	<b>1346</b>	<b>1215</b>
	<b>Total All India</b>	<b>125305</b>	<b>104708</b>	<b>129808</b>	<b>111389</b>