

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

Issue Date: 02/09/2013

Issue Time: 1215 hrs

Revision No. 8

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 September 2013 to 30th September 2013	00-24	2500	500	2000	286	1714		
WR-NR <sup>1</sup>	1st September 2013 to 30th September 2013	00-17	5700 <sup>Δ</sup>	500	5200 <sup>Δ</sup>	2937 <sup>Δ</sup>	2263		Revised due to Allocation of 150 MW additional power to J&K.
		23-24	5500 <sup>Δ</sup>		5000 <sup>Δ</sup>	2937 <sup>Δ</sup>	2063		
NR-ER *	1st September 2013 to 30th September 2013	00-17	1000	200	800	0	800		
		23-24	1100		900		900		
ER-NR	1st September 2013 to 30th September 2013	00-17	4000	300	3700	2189	1511		
		23-24					1511		
W3-ER	1st September 2013 to 30th September 2013	00-24	1900	300	1600	0	1600		
ER-W3	1st September 2013 to 30th September 2013	00-24	1000	300	700	700	0		
WR-SR	1st September 2013 to 30th September 2013	00-24	1000	0	1000	1000	0		
SR-WR*	1st September 2013 to 30th September 2013	00-24	1000	0	1000	0	1000		
ER-SR	1st September 2013 to 30th September 2013	00-05	700	0	700	657	43		1. Revised due to Load Generation change in ER. 2. Allocation of additional 45 MW to karnataka.
		10-19							
		05-10	1100		1100		443		
SR-ER*	1st September 2013 to 30th September 2013	00-17	800	0	800	197	603		
		23-24	900		900		703		
ER-NER #	1st September 2013 to 2nd September 2013	00-08	600	50	550	230	320		Revised due to Shutdown of 400 kV Balipara – Bongaigaon ckt-II
		23-24	280		230		0		
		08-17'	600		550		320		
	3rd September 2013 to 4th September 2013	00-17	600	50	550	230	320	320	Revised due to Withdrawal of 400 kV Balipara – Bongaigaon ckt-II Shutdown.
		17-23	600	550	320				
	5th September 2013 to 30th September 2013	00-17	600	50	550	230	320		
23-24		600	550	320					
NER-ER #	1st September 2013 to 2nd September 2013	00-08	500	100	400	0	400		Revised due to Shutdown of 400 kV Balipara – Bongaigaon ckt-II
		23-24	130		30		30		
		08-17'	320		220		220		
	3rd September 2013 to 4th September 2013	00-17	500	100	400	0	400	370	Revised due to Withdrawal of 400 kV Balipara – Bongaigaon ckt-II Shutdown.
		23-24	320	220	220				
	5th September 2013 to 30th September 2013	00-17	500	100	400	0	400		
23-24		320	220	220					
S1-S2	1st September 2013 to 30th September 2013	00-24	5800	200	5600	5200	400		

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Import of Punjab	1st September 2013 to 30th September 2013	00-24	5600	300	5300	3475	1825		Revised due to change LTA/MTOA quantum.
Import TTC for DD & DNH	1st September 2013 to 30th September 2013	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st September 2013 to 30th September 2013	00-17, 23-24	9000	200	8800	7074	1726		
		17-23	9500		9300		2226		

\* Fifty Percent (50 %) Counter flow benefit on account of LTA/MTOA transactions in the reverse direction would be considered for advanced transactions (Bilateral & First Cum First Serve).

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)KWPCCL, M) DB Power

Δ. 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).

**I. 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	(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 220 kV Jayanagar - Jeypore and Talcher-Kolar HVDC Capacity
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	High loading of 132 kV LTPS – Mariani S/C Insufficient generating resources in NER
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-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section

**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									
NR <sup>1</sup>	1st September 2013 to 30th September 2013	00-17 23-24	9700 <sup>Δ</sup>	1000	8700 <sup>Δ</sup>	5126 <sup>Δ</sup>	3574		Revised due to Allocation of 150 MW additional power to J&K.
		17-23	9500 <sup>Δ</sup>		8500 <sup>Δ</sup>		3374		
NER #	1st September 2013 to 2nd September 2013	00-08 23-24	600	50	550	230	320		Revised due to Shutdown of 400 kV Balipara – Bongaigaon ckt-II
		08-17'	280		230		0		
		17-23	600		550		320		
	3rd September 2013 to 4th September 2013	00-17 23-24	600	50	550	230	320	320	Revised due to Withdrawal of 400 kV Balipara – Bongaigaon ckt-II Shutdown.
		17-23	600		550		320		
	5th September 2013 to 30th September 2013	00-17 23-24	600	50	550	230	320		
17-23		600	550		320				
WR									
SR	1st September 2013 to 30th September 2013	00-05 10-19	1700	0	1700	1657	43		1. Revised due to Load Generation change in ER. 2. Allocation of additional 45 MW to karnatka.
		05-10 19-24	2100		2100		443		

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 September 2013 to 30th September 2013	00-17 23-24	3500	700	2800	286	2514		
		17-23	3600		2900		2614		
NER #	1st September 2013 to 2nd September 2013	00-08 23-24	500	100	400	0	400		Revised due to Shutdown of 400 kV Balipara – Bongaigaon ckt-II
		08-17'	130		30		30		
		17-23	320		220		220		
	3rd September 2013 to 4th September 2013	00-17 23-24	500	100	400	0	400	370	Revised due to Withdrawal of 400 kV Balipara – Bongaigaon ckt-II Shutdown.
		17-23	320		220		220		
	5th September 2013 to 30th September 2013	00-17 23-24	500	100	400	0	400		
17-23		320	220		220				
WR									
SR*	1st September 2013 to 30th September 2013	00-17 23-24	1800	0	1800	197	1603		
		17-23	1900		1900		1703		

\* Fifty Percent (50 %) Counter flow benefit on account of LTA/MTOA transactions in the reverse direction would be considered for advanced transactions (Bilateral & First Cum First Serve).

## Limiting Constraints

<b>NR</b>	<b>Import</b>	(n-1) contingency of 400 kV Purnea-Muzaffarpur (n-1) contingency of 765/400 kV ICT at Agra
	<b>Export</b>	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Allahabad-Pusaali
<b>NER</b>	<b>Import</b>	(n-1) contingency of 400/220 kV,315 MVA ICT at Misa* (n-1) contingency of 400 kV Binaguri-Bongaigaon
	<b>Export</b>	High loading of 132 kV LTPS – Mariani S/C Insufficient generating resources in NER
<b>SR</b>	<b>Import</b>	Bhadrawati HVDC B/B link capacity (n-1) contingency of 220 kV Jayanagar - Jeypore and Talcher-Kolar HVDC Capacity
	<b>Export</b>	Bhadrawati HVDC B/B link capacity

\*Primary constraints

## ASSUMPTIONS IN BASECASE

Month : September '13

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	7253	6913	2728	2423
2	Haryana	6245	5828	3512	3512
3	Rajasthan	6749	6004	3624	3616
4	Delhi	4432	3910	1276	1276
5	Uttar Pradesh	11080	12540	4345	4134
6	Jammu & Kashmir	1994	1050	617	640
7	Uttarakhand	1602	1536	775	775
8	Himachal Pradesh	1511	1000	955	975
9	Chandigarh	279	193	0	0
10	ISGS/IPPs			18230	15865
	<b>Total NR</b>	<b>41145</b>	<b>38974</b>	<b>36062</b>	<b>33216</b>
<b>II</b>	<b>EASTERN REGION</b>				
1	West Bengal	6980	5310	4769	4094
2	Jharkhand	1045	660	544	354
3	Orissa	3630	2750	2889	2149
4	Bihar	1870	1320	0	0
5	Damodar Valley Corporation	2500	1980	3219	3219
6	Sikkim	40	40	0	0
7	Bhutan	111	111	1356	1356
8	ISGS/IPPs	21	21	5956	5956
	<b>Total ER</b>	<b>16197</b>	<b>12192</b>	<b>18733</b>	<b>17128</b>
<b>III</b>	<b>WESTERN REGION</b>				
1	Chattisgarh	2846	2482	1373	2154
2	Madhya Pradesh	7700	5038	3908	2659
3	Maharashtra	14190	12362	9196	6579
4	Gujarat	10859	8313	10508	7908
5	Goa	398	238	0	0
6	Daman and Diu	234	206	0	0
7	Dadra and Nagar Haveli	571	553	0	0
8	ISGS/IPPs	590	592	16956	14488
	<b>Total WR</b>	<b>37388</b>	<b>29784</b>	<b>41941</b>	<b>33788</b>

## ASSUMPTIONS IN BASECASE

Month : September '13

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
<b>IV</b>	<b>SOUTHERN REGION</b>				
1	Andhra Pradesh	10964	8914	7317	5430
2	Tamil Nadu	10755	9192	6765	5051
3	Karnataka	7831	5859	5033	3582
4	Kerala	3289	2424	1892	1073
5	Pondy	314	243	0	0
6	Goa	80	80	0	0
7	ISGS/IPPs			10476	9895
	<b>Total SR</b>	<b>33233</b>	<b>26712</b>	<b>31483</b>	<b>25031</b>
<b>V</b>	<b>NORTH-EASTERN REGION</b>				
1	Manipur	130	91	0	0
2	Meghalaya	280	196	148	68
3	Mizoram	85	60	8	6
4	Nagaland	120	84	12	10
5	Assam	1415	970	240	200
6	Tripura	230	130	100	80
7	Arunachal Pradesh	130	91	0	0
8	ISGS/IPPs			1297	1080
	<b>Total NER</b>	<b>2390</b>	<b>1622</b>	<b>1805</b>	<b>1444</b>
	<b>Total All India</b>	<b>130353</b>	<b>109284</b>	<b>130024</b>	<b>110607</b>