

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

Issue Date: 11/09/2013

Issue Time: 1000 hrs

Revision No. 13

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 ¹	1st September 2013 to 3rd September 2013	00-17	5700 ^Δ	500	5200 ^Δ	2937 ^Δ	2263		
		23-24	5500 ^Δ		5000 ^Δ	2937 ^Δ	2063		
	4th September 2013 to 6th September 2013	00-07	5700 ^Δ	500	5200 ^Δ	2937 ^Δ	2263		
		23-24	3100 ^Δ		2600 ^Δ	2937 ^Δ	0		
		07-20'	5500 ^Δ		5000 ^Δ	2937 ^Δ	2063		
	7th September 2013 to 30th September 2013	00-17	5700 ^Δ	500	5200 ^Δ	3181 ^Δ	2019		
		23-24	5500 ^Δ		5000 ^Δ	3181 ^Δ	1819		
	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 3rd September 2013	00-05	700	0	700	657	43		
		10-19	1100		1100		443		
	4th September 2013 to 6th September 2013	00-05	800	0	800	657	143		
		12-16	1100		1100		443		
		05-10	700		700		43		
	7th September 2013	00-05	800	0	800	657	143		
		12-16	1100		1100		443		
		05-10	700		700		43		
	8th September 2013	00-05	800	0	800	657	143		
		12-16	1100		1100		443		
		05-08'	800		800		143		
		08-10'	700		700		43		
		10-12'	800		800		143		
		12-16'	700		700		43		
		16-19	800		800		143		
	9th September 2013 to 11th September 2013	00-10	800	0	800	657	143		
		12-16	700		700		43		
		10-12	800		800		143		
	12th September 2013	00-10	800	0	800	657	143		
		12-16	700		700		43		
10-12		1100	1100		443				

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ER-SR	13th September 2013 to 30th September 2013	00-05 12-16	800	0	800	657	143		
		05-10 19-24	1100		1100		443		
		10-12 16-19	700		700		43		
SR-ER*	1st September 2013 to 30th September 2013	00-17 23-24	800	0	800	197	603		
		17-23	900		900		703		
ER-NER	1st September 2013 to 2nd September 2013	00-08 23-24	600	50	550	230	320		
		08-17'	280		230		0		
		17-23	600		550		320		
	3rd September 2013 to 5th September 2013	00-17 23-24	600	50	550	230	320		
		17-23	600		550		320		
	6th September 2013 to 7th September 2013	00-08	600	50	550	230	320		
		08-13'	480		430		200		
		13-24	600		550		320		
	8th September 2013 to 11th September 2013	00-17 23-24	600	50	550	230	320		
		17-23	600		550		320		
	12th September 2013 to 14th September 2013	00-08 17-24	600	50	550	230	320		Revised due to Shutdown of 400 kV Balipara – Bongaigaon Ckt-II on 12/09, 13/09 & Ckt-I on 14/09.
		08-17'	280		230		0	-320	
	15th September 2013 to 30th September 2013	00-17 23-24	680	50	630	230	400	80	Revised due to change in Load Generation Balance.
		17-23	680		630		400		
	NER-ER	1st September 2013 to 2nd September 2013	00-08 23-24	500	100	400	0	400	
08-17'			130	30		30			
17-23			320	220		220			
3rd September 2013 to 5th September 2013		00-17 23-24	500	100	400	0	400		
		17-23	320		220		220		
6th September 2013 to 7th September 2013		00-08 13-17 23-24	500	100	400	0	400		
		08-13'	350		250		250		
		17-23	320		220		220		
8th September 2013 to 11th September 2013		00-17 23-24	500	100	400	0	400		
		17-23	320		220		220		
12th September 2013 to 14th September 2013		00-08 23-24	500	100	400	0	400		Revised due to Shutdown of 400 kV Balipara – Bongaigaon Ckt-II on 12/09, 13/09 & Ckt-I on 14/09.
		08-17'	110		10		10	-390	
		17-23	320		220		220		
15th September 2013 to 30th September 2013		00-17 23-24	500	100	400	0	400		
		17-23	320		220		220		
S1-S2	1st September 2013 to 30th September 2013	00-24	5800	200	5600	5200	400		
Import of Punjab	1st September 2013 to 30th September 2013	00-24	5600	300	5300	3475	1825		
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).

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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
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- 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, N) Vandana Vidyut

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	(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 ¹	1st September 2013 to 3rd September 2013	00-17 23-24	9700 ^Δ	1000	8700 ^Δ	5126 ^Δ	3574			
		17-23	9500 ^Δ		8500 ^Δ		3374			
	4th September 2013 to 6th September 2013	00-07 23-24	9700 ^Δ	1000	8700 ^Δ	5126 ^Δ	3574			
		07-20'	7100 ^Δ		6100 ^Δ		974			
		20-23	9500 ^Δ		8500 ^Δ		3374			
	7th September 2013 to 30th September 2013	00-17 23-24	9700 ^Δ	1000	8700 ^Δ	5370 ^Δ	3330			
		17-23	9500 ^Δ		8500 ^Δ		3130			
	NER	1st September 2013 to 3rd September 2013	00-08 23-24	600	50	550	230	320		
			08-17'	280		230		0		
17-23			600	550		320				
3rd September 2013 to 5th September 2013		00-08 23-24	600	50	550	230	320			
		17-23	600		550		320			
6th September 2013 to 7th September 2013		00-08	600	50	550	230	320			
		08-13'	480		430		200			
		13-24	600		550		320			
8th September 2013 to 11th September 2013		00-17 23-24	600	50	550	230	320			
		17-23	600		550		320			
12th September 2013 to 14th September 2013		00-08 17-24	600	50	550	230	320		Revised due to Shutdown of 400 kV Balipara – Bongaigaon Ckt-II on 12/09, 13/09 & Ckt-I on 14/09.	
		08-17'	280		230		0	-320		
15th September 2013 to 30th September 2013		00-17 23-24	680	50	630	230	400	80	Revised due to change in Load Generation Balance.	
		17-23	680		630		400			
WR										
SR	1st September 2013 to 3rd September 2013	00-05 10-19	1700	0	1700	1657	43			
		05-10 19-24	2100		2100		443			
	4th September 2013 to 6th September 2013	00-05 12-16	1800	0	1800	1657	143			
		05-10 19-24	2100		2100		443			
		10-12 16-19	1700		1700		43			
	7th September 2013	00-05 12-16	1800	0	1800	1657	143			
		05-10 19-24	2100		2100		443			
		10-12 16-19	1700		1700		43			
	8th September 2013	00-05	1800	0	1800	1657	143			
		05-08'	2100		2100		443			
		08-10'	1800		1800		143			
		10-12'	1700		1700		43			
		12-16'	1800		1800		143			
		16-19	1700		1700		43			
		19-24	1800		1800		143			
	9th September 2013 to 11th September 2013	00-10 12-16	1800	0	1800	1657	143			
		10-12 16-19	1700		1700		1700			
		19-24	1800		1800		143			
	12th September 2013	00-10 12-16	1800	0	1800	1657	143			
		10-12 16-19	1700		1700		43			
		19-24	2100		2100		443			
	13th September 2013 to 30th September 2013	00-05 12-16	1800	0	1800	1657	143			
		05-10 19-24	2100		2100		443			
		10-12 16-19	1700		1700		43			

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:

- 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		
		08-17'	130		30		30		
		17-23	320		220		220		
	3rd September 2013 to 5th September 2013	00-17 23-24	500	100	400	0	400		
		17-23	320		220		220		
	6th September 2013 to 7th September 2013	00-08 13-17 23-24	500	100	400	0	400		
		08-13'	350		250		250		
		17-23	320		220		220		
	8th September 2013 to 11th September 2013	00-17 23-24	500	100	400	0	400		
		17-23	320		220		220		
	12th September 2013 to 14th September 2013	00-08 23-24	500	100	400	0	400		Revised due to Shutdown of 400 kV Balipara – Bongaigaon Ckt-II on 12/09, 13/09 & Ckt-I on 14/09.
		08-17'	110		10		10		
17-23		320	220		220				
15th 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

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

*Primary constraints

National Load Despatch Centre
Total Transfer Capability for September 2013

Revision No	Date of Revision	Period of revision	Reason for Revision	Corridor Affected
1	04-06-2013	Whole Month	Revised due to Load Generation Balance.	WR-NR
2	05-06-2013	Whole Month	Revised due to Load Generation Balance.	Import of Punjab
3	24-06-2013	Whole Month	Revised due to change LTA/MTOA quantum.	Import of Punjab
4	26-08-2013	Whole Month	Revised due to increase in availability of ISGS in ER	ER-W3
5	27-08-2013	Whole Month	Revised due to Allocation of 150 MW additional power to J&K.	WR-NR
			(i) Revised due to Load Generation change in ER. (ii) Allocation of additioonal 45 MW to karnatka.	ER-SR
6	27-08-2013	Whole Month	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).	NR-WR, NR-ER, SR-ER, SR-WR
7	30-08-2013	1st Sep to 4th Sep	Revised due to Shutdown of 400 kV Balipara - Bongaigaon ckt-II	ER-NER, NER-ER
8	02-09-2013	3rd Sep to 4th Sep	Revised due to Withdrawal of 400 kV Balipara – Bongaigaon ckt-II Shutdown.	ER-NER, NER-ER
9	03-09-2013	4th Sep to 6th Sep	Revised due to shutdown of 765 kV Agra-Gwalior Ckt 1	WR-NR,
		4th Sep to 30th Sep	Revised due to change in load generation pattern	ER-SR
10	05-09-2013	6th Sep to 7th Sep	Revised due to Shutdown of Misa ICT-1 on 06/09/13 and ICT-2 on 07/09/13	ER-NER, NER-ER
		7th Sep to 30th Sep	Revised due to commissioning of one uit of Sasan UMPP.	WR-NR
			Revised due to shutdown of Talcher Stage-1, Unit-1.	ER-SR
11	06-09-2013	7th Sep to 30th Sep	Revised due to Deferement of Unit-1 Overhaluing of TSTPP Stage-I	ER-SR
12	06-09-2013	8th Sep to 12th Sep	Revised due to shutdown of 400 kV Jamshedpur-TISCO	ER-SR
13	11-09-2013	12th Sep to 14th Sep	Revised due to Shutdown of 400 kV Balipara – Bongaigaon Ckt-II on 12/09, 13/09 & Ckt-I on 14/09.	ER-NER, NER-ER
		15th Sep to 30th Sep	Revised due to change in Load Generation Balance.	ER-NER

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)
I	NORTHERN REGION				
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
	Total NR	41145	38974	36062	33216
II	EASTERN REGION				
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
	Total ER	16197	12192	18733	17128
III	WESTERN REGION				
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
	Total WR	37388	29784	41941	33788

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)
IV	SOUTHERN REGION				
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
	Total SR	33233	26712	31483	25031
V	NORTH-EASTERN REGION				
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
	Total NER	2390	1622	1805	1444
	Total All India	130353	109284	130024	110607