

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

Issue Date: 15/09/2013

Issue Time: 1200 hrs

Revision No. 15

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	443		
		05-10					800	143		
	4th September 2013 to 6th September 2013	12-16	1100	0	1100	657	443			
		05-10	700		700		43			
		19-24	800		800		143			
		10-12	1100		1100		443			
	7th September 2013	16-19	700	0	700	657	43			
		00-05	800		800		143			
		12-16	1100		1100		443			
	8th September 2013	19-24	700	0	700	657	43			
		00-05	800		800		143			
		05-08'	1100		1100		443			
		08-10'	800		800		143			
		10-12'	700		700		43			
		12-16'	800		800		143			
		16-19	700		700		43			
	19-24	800	800	143						
	9th September 2013 to 11th September 2013	00-10	800	0	800	657	143			
		12-16	700		700		43			
16-19		800	800		143					
12th September 2013	19-24	800	0	800	657	143				
	00-10	700		700		43				
	12-16	1100		1100		443				
	16-19	800		800		143				

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ER-SR	13th September 2013 to 15th 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		
	16th September 2013 to 30th September 2013	00-05 12-16	700	0	700	657	43	-100	
		05-10 19-24	700		700		43	-400	
		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		
		08-17'	280		230		0		
	15th September 2013 to 16th September 2013	00-08 17-24	600	50	550	230	320		
		08-17'	280		230		0		
	17th September 2013 to 30th September 2013	00-17 23-24	680	50	630	230	400		
		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			
	08-17'	110		10		10			
	17-23	320		220		220			
15th September 2013 to 16th September 2013	00-08 23-24	500	100	400	0	400			
	08-17'	110		10		10			
	17-23	320		220		220			
17th September 2013 to 30th September 2013	00-17 23-24	500	100	400	0	400			
	17-23	320		220		220			

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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).

- 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
 - 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.

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

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
SI-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	9700 ^Δ	1000	8700 ^Δ	5126 ^Δ	3574		
		23-24			8500 ^Δ		3374		
	4th September 2013 to 6th September 2013	00-07	9700 ^Δ	1000	8700 ^Δ	5126 ^Δ	3574		
		23-24			6100 ^Δ		974		
		07-20'	7100 ^Δ		8500 ^Δ		3374		
	7th September 2013 to 30th September 2013	00-17	9700 ^Δ	1000	8700 ^Δ	5370 ^Δ	3330		
23-24			8500 ^Δ		3130				
NER	1st September 2013 to 3rd September 2013	00-08	600	50	550	230	320		
		23-24			230		0		
		08-17'	280		550		320		
	3rd September 2013 to 5th September 2013	00-17	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	600	50	550	230	320		
		23-24			550		320		
	12th September 2013 to 14th September 2013	00-08	600	50	550	230	320		
		17-24			230		0		
	15th September 2013 to 16th September 2013	00-08	600	50	550	230	320		
		17-24			230		0		
17th September 2013 to 30th September 2013	00-17	680	50	630	230	400			
	23-24			630		400			
17-23	680		630	400					
WR									
SR	1st September 2013 to 3rd September 2013	00-05	1700	0	1700	1657	43		
		10-19			2100		443		
	4th September 2013 to 6th September 2013	00-05	1800	0	1800	1657	143		
		12-16			2100		443		
		05-10	2100		1700		43		
	7th September 2013	00-05	1800	0	1800	1657	143		
		12-16			2100		443		
		05-10	2100		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	1800	0	1800	1657	143		
		12-16			1700		1700		
		10-12	1700		1800		143		
12th September 2013	00-10	1800	0	1800	1657	143			
	12-16			1700		43			
	10-12	1700		1700		43			
	16-19	1700		2100		443			
19-24	2100		2100						

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
SR	13th September 2013 to 15th 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		
	16th September 2013 to 30th September 2013	00-05 12-16	1700	0	1700	1657	43	-100	
		05-10 19-24	1700		1700		43	-400	
		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).

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			
		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			
		08-17'	110		10		10			
		17-23	320		220		220			
	15th September 2013 to 16th September 2013	00-08 23-24	500	100	400	0	400		Revised due to Shutdown of 400 kV Balipara – Bongaigaon Ckt-I.	
		08-17'	110		10		10			-390
		17-23	320		220		220			
	17th 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-Bhimmal 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	4-Jun-13	Whole Month	Revised due to Load Generation Balance.	WR-NR
2	5-Jun-13	Whole Month	Revised due to Load Generation Balance.	Import of Punjab
3	24-Jun-13	Whole Month	Revised due to change LTA/MTOA quantum.	Import of Punjab
4	26-Aug-13	Whole Month	Revised due to increase in availability of ISGS in ER	ER-W3
5	27-Aug-13	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-Aug-13	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-Aug-13	1st Sep to 4th Sep	Revised due to Shutdown of 400 kV Balipara - Bongaigaon ckt-II	ER-NER, NER-ER
8	2-Sep-13	3rd Sep to 4th Sep	Revised due to Withdrawal of 400 kV Balipara – Bongaigaon ckt-II Shutdown.	ER-NER, NER-ER
9	3-Sep-13	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	5-Sep-13	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	6-Sep-13	7th Sep to 30th Sep	Revised due to Deferment of Unit-1 Overhauling of TSTPP Stage-I	ER-SR
12	6-Sep-13	8th Sep to 12th Sep	Revised due to shutdown of 400 kV Jamshedpur-TISCO	ER-SR
13	11-Sep-13	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
14	14-Sep-13	15th Sep to 16th Sep	Revised due to Shutdown of 400 kV Balipara – Bongaigaon Ckt-I.	ER-NER
15	15-Sep-13	16th Sep to 30th Sep	Revised due to shutdown of Unit-1 of Talcher Stage-I	ER-SR

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