

National Load Despatch Centre
Total Transfer Capability for November 2013

Issue Date: 24/11/2013

Issue Time: 1000 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 November 2013 to 30th November 2013	00-24	2500	500	2000	286	1714		
WR-NR ¹	1st November 2013 to 19th November 2013	00-17 23-24	3700	500	3200	3181	19		
		17-23	3700		3200	3181	19		
	20th November 2013	00-08 19-24	3700	500	3200	3181	19		
		08-19'	3100		2600	3181	0		
	21st November 2013 to 30th November 2013	00-17 23-24	3700	500	3200	3181	19		
		17-23	3700		3200	3181	19		
NR-ER*	1st November 2013 to 30th November 2013	00-17 23-24	1000	200	800	0	800		
		17-23	1100		900		900		
ER-NR	1st November 2013	00-19	3000	300	2700	2370	330		
		19-24	3600	300	3300	2370	930		
	2nd November 2013 to 20th November 2013	00-17 23-24	3600	300	3300	2370	930		
		17-23	3600	300	3300	2370	930		
	21st November 2013	00-930 1830-24	3600	300	3300	2370	930		
		0930-1830	3300		3000	2370	630		
	22nd November 2013 to 30th November 2013	00-17 23-24	3600	300	3300	2370	930		
		17-23	3600	300	3300	2370	930		
W3-ER	1st November 2013 to 30th November 2013	00-24	1800	300	1500	0	1500		
	9th November 2013	00-09 18-24	1800	300	1500	0	1500		
		09-18'	1500	300	1200	0	1200		
	10th November 2013	00-08 19-24	1800	300	1500	0	1500		
		08-19'	1500	300	1200	0	1200		
	11th November 2013 to 14th November 2013	00-24	1800	300	1500	0	1500		
	15th November 2013	00-08 08-24'	1800	300	1500	0	1500		
		08-24'	1500	300	1200	0	1200		
	16th November 2013	00-19 19-24	1500	300	1200	0	1200		
		19-24	1800	300	1500	0	1500		
17th November 2013 to 30th November 2013	00-24	1800	300	1500	0	1500			
ER-W3	1st November 2013 to 30th November 2013	00-24	1000	300	700	700	0		
WR-SR	1st November 2013 to 30th November 2013	00-24	1000	0	1000	1000	0		
SR-WR*	1st November 2013 to 30th November 2013	00-24	1000	0	1000	0	1000		
ER-SR	1st November 2013 to 5th November 2013	00-05 10-19	750	0	750	612	138		
		05-10 19-24	1250	200	1050		438		
	6th November 2013	00-05'	750	0	750	612	138		
		05-06'	1250	200	1050		438		
		06-10 19-21	950	0	950		338		
		10-19'	450	0	450		0		
		21-24	1050	0	1050		438		

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ER-SR	7th November 2013 to 30th November 2013	00-05 10-19	750	0	750	612	138			
		05-10 19-24	1250	200	1050		438			
SR-ER*	1st November 2013 to 30th November 2013	00-17 23-24	800	0	800	197	603			
		17-23	900		900		703			
ER-NER	1st November 2013	00-17 23-24	450	35	415	230	185			
		17-23	550		515		285			
	2nd November 2013 to 4th November 2013	00-17 23-24	500	35	465	230	235			
		17-23	600		565		335			
ER-NER	5th November 2013 to 8th November 2013	00-08 23-24 16-17	500	35	465	230	235			
		08-16'	280		245		15			
		17-23	600		565		335			
	9th November 2013 to 10th November 2013	00-08 23-24 16-17	500	35	465	230	235			
		08-16'	500		465		235			
		17-23	600		565		335			
	11th November 2013 to 12th November 2013	00-08 23-24 16-17	450	35	415	230	185			
		08-16'	280		245		15			
		17-23	550		515		285			
	13th November 2013 to 30th November 2013	00-17 23-24	450	35	415	230	185			
		17-23	550		515		285			
	NER-ER	1st November 2013 to 4th November 2013	00-17 23-24	550	100	450	0	450		
17-23			520	420		420				
00-08 16-17 23-24			550	100		450		0	450	
08-16'		110	10		10					
17-23		520	420		420					
9th November 2013 to 10th November 2013		00-08 16-17 23-24	550	100	450	0	450			
		08-16'	550		450		450			
		17-23	520		420		420			
11th November 2013 to 12th November 2013		00-08 16-17 23-24	550	100	450	0	450			
		08-16'	110		10		10			
		17-23	520		420		420			
13th November 2013 to 30th November 2013		00-17 23-24	550	100	450	0	450			
		17-23	520		420		420			
S1-S2		1st November 2013 to 30th November 2013	00-24	5600	400	5200	4800	400		
Import of Punjab		1st November 2013 to 30th November 2013	00-24	5600	300	5300	3800	1500		

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Import TTC for DD & DNH	1st November 2013 to 30th November 2013	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st November 2013 to 10th November 2013	00-17, 23-24	8500	200	8300	7074	1226		
		17-23	9000		8800		1726		
	11th November 2013 to 24th November 2013	00-17, 23-24	9000	200	8800	7074	1726		
		17-23	9500		9300		2226		
	25th November 2013 to 30th November 2013	00-08 23-24	8500	200	8300	7074	1226	-500	Revised due to change in Inter-Regional flow pattern and Load generation change in ER/WR.
		08-16'	8000		7800		726	-1000	
16-17		9000	8800		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 Come 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)DB Power, m) KWPCCL

The figure is based on LTA/MTOA approved by CTU. In actual Operation, due to Units being on Maintenance/ Fuel shortage the LTA/MTOA utilized would be less. RLDC/ NLDC would factor this situation while issuing STOA approvals.

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 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	High loading of 765 kV Agra-Gwalior (1000 MW SPS setting on each circuit of 765 kV Gwalior-Agra)
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusaui
ER-NR	(n-1) contingency of 400 kV Farakka-Malda
W3-ER	(n-1) contingency of 400kV Sterlite-Rourkela S/C
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 Raigarh-Sterlite
WR-SR	Bhadrawati HVDC B/B link capacity
SR-WR	Bhadrawati HVDC B/B link capacity
ER-SR	Peak: 1. Talcher-Kolar HVDC Capacity; 2. (n-1) contingency of 400 kV Jeypore-Gazuwaka Off-Peak: 1. Talcher-Kolar HVDC Capacity; 2. (n-1) contingency of 400 kV Jeypore-Gazuwaka
SR-ER	
ER-NER	(n-1) contingency of 400 kV Farakka-Malda* (n-1) contingency of 400/220 kV,315 MVA ICT at Misa
NER-ER	(n-1) contingency of 400 kV Binaguri-Bongaigaon* (n-1) contingency of 400 kV Balipara-Bongaigaon
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

*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										
NR¹	1st November 2013	00-19	6700	800	5900	5551	349			
		19-24	7300		6500		949			
	2nd November 2013 to 19th November 2013	00-17	7300	800	6500	5551	949			
		23-24								7300
	20th November 2013	00-08 19-24	7300	800	6500	5551	949			
		08-19'								6700
	21st November 2013	00-0930 1830-24	7300	800	6500	5551	949			
		0930-1830								7000
	22nd November 2013 to 30th November 2013	00-17	7300	800	6500	5551	949			
		23-24								7300
	NER	1st November 2013	00-17	450	50	400	230	170		
			23-24			550		500		
2nd November 2013 to 4th November 2013		00-17	500	50	450	230	220			
		23-24			600		550			320
5th November 2013 to 8th November 2013		00-08	500	35	465	230	235			
		23-24			245		15			
		16-17			280		335			
9th November 2013 to 10th November 2013		00-08	500	35	465	230	235			
		23-24			465		235			
		16-17			500		335			
11th November 2013 to 12th November 2013		00-08	450	35	415	230	185			
		23-24			245		15			
		16-17			550		285			
13th November 2013 to 30th November 2013		00-17	450	50	400	230	170			
		23-24			500		270			
WR										
SR		1st November 2013 to 5th November 2013	00-05 10-19	1750	0	1750	1612	138		
			05-10 19-24	2250	200	2050		438		
	6th November 2013	00-05'	1750	0	1750	612	1138			
		05-06'	2250	200	2050		1438			
		06-10 19-21	1950	0	1950		1338			
		10-19'	1450	0	1450		0			
		21-24	2050	0	2050		1438			
	7th November 2013 to 30th November 2013	00-05 10-19	1750	0	1750	1612	138			
		05-10 19-24	2250	200	2050		438			

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 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 November 2013 to 30th November 2013	00-17 23-24	3500	700	2800	286	2514			
		17-23	3600		2900		2614			
NER	1st November 2013 to 4th November 2013	00-17 23-24	550	100	450	0	450			
		17-23	520		420		420			
	5th November 2013 to 8th November 2013	00-08 16-17 23-24	550	100	450	0	450			
		08-16'	110		10		10			
		17-23	520		420		420			
	9th November 2013 to 10th November 2013	00-08 16-17 23-24	550	100	450	0	450			
		08-16'	550		450		450			
		17-23	520		420		420			
	11th November 2013 to 12th November 2013	00-08 16-17 23-24	550	100	450	0	450			
		08-16'	110		10		10			
		17-23	520		420		420			
	13th November 2013 to 30th November 2013	00-17 23-24	550	100	450	0	450			
		17-23	520		420		420			
	WR									
	SR*	1st November 2013 to 30th November 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 Come First Serve).

Limiting Constraints

NR	Import	(n-1) contingency of 400 kV Faarakka-Malda* High loading of 765 kV Agra-Gwalior (1000 MW SPS setting on each circuit of 765 kV Gwalior-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 kV Farakka-Malda*
	Export	(n-1) contingency of 400 kV Binaguri-Bongaigaon*
SR	Import	Bhadrawati HVDC B/B link capacity (n-1) contingency of 400 kV Rourkela-Talcher
	Export	

*Primary constraints

National Load Despatch Centre
Total Transfer Capability for November 2013

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	26-08-13	Whole Month	Revised due to increase in availability of ISGS in ER	ER-W3
2	28-08-13	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 Come First Serve).	NR-WR, NR-ER, SR-WR, SR-ER
3	10-09-13	Whole Month	Revised due to commissioning of Sasan UMPP Unit 30	WR-NR
			Increase in share of Punjab from Sasan, DSTPS, Parbati-III	Import of Punjab
4	09-10-13	Whole Month	Revised considering SPS setting of 1000 MW on each circuit of 765 kV Agra-Gwalior	WR-NR
			Margin revised considering reduction in MTOA quantum.	W3
5	29-10-13	Whole Month	Revised considering present load generation balance	ER-SR
6	31-10-13	01st Nov 13	Revised considering present load generation balance and shutdown of 400 kV Farakka-Malda Ckt 1	ER-NER / ER-NR
	31-10-13	01st Nov 13 - 10th Nov 13	Revised considering present load generation balance	W3
7	01-11-13	02nd Nov 13 - 10th Nov 13	Revised considering present load generation balance	ER-NER
8	04-11-13	05th Nov 13 - 10th Nov 13	Revised due to Shutdown of one ckt of 400 kV Balipara-Bongoigaon	ER-NER / NER-ER
9	05-11-13	06th Nov 13	Revised due to shutdown of 400 kV Angul-Bolangir	ER-SR
10	08-11-13	9th Nov 13 - 10th Nov 13	Revised due to deferment of 400 kV Balipara-Bongoigaon I shutdown	ER-NER / NER-ER
		9th Nov 13 - 10th Nov 13	Revised due to shutdown of 400 kV Jharsuguda-Raigarh II and 400 kV Raigarh-Jharsuguda-Rourkela I	W3-ER
11	09-11-13	11th Nov 13 - 12th Nov 13	Revised due to shutdown of 400 kV Balipara-Bongoigaon Ckt 1 and Ckt 2 (one by one)	ER-NER / NER-ER
		11th Nov 13 - 30th Nov 13	Revised considering present load generation balance	ER-NER
12	14-11-13	15th Nov 13 - 16th Nov 13	Revised due to shutdown of 400 kV Raigarh-Jharsuguda-Rourkela Ckt 2	W3-ER
13	19-11-13	20th Nov 13	Revised due to shutdown of 765 kV Bina-Gwalior Ckt-1	WR-NR
14	20-11-13	21st Nov 13	Revised due to shutdown of 400 kV Kahalgaon-Barh Ckt-2	ER-NR
15	24-11-13	25th Nov 13 - 30th Nov 13	Revised due to change in Inter-Regional flow pattern and Load generation change in ER/WR.	W3 zone Injection

ASSUMPTIONS IN BASECASE

Month : November '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	7000	4924	2546	2351
2	Haryana	5559	4660	2770	2770
3	Rajasthan	7051	6539	4002	4002
4	Delhi	3974	3720	1514	1514
5	Uttar Pradesh	11000	10322	6008	5756
6	Jammu & Kashmir	1876	1185	584	429
7	Uttarakhand	1543	902	713	340
8	Himachal Pradesh	1327	730	444	523
9	Chandigarh	224	118	0	0
10	ISGS/IPPs			16740	11303
	Total NR	39554	33100	35321	28988
II	EASTERN REGION				
1	West Bengal	4900	4500	4837	3944
2	Jharkhand	1110	770	561	561
3	Orissa	3500	2200	2430	1699
4	Bihar	1820	1320	0	0
5	Damodar Valley Corporation	2600	2035	3439	3039
6	Sikkim	40	40		
7	Bhutan	110	110	648	648
8	ISGS/IPPs	131	241	6494	6762
	Total ER	14211	11216	18409	16653
III	WESTERN REGION				
1	Chattisgarh	3181	2462	1804	1065
2	Madhya Pradesh	7637	5600	9905	7817
3	Maharashtra	15506	12500	4366	2928
4	Gujarat	11119	10121	11221	8374
5	Goa	432	281	0	0
6	Daman and Diu	245	208	0	0
7	Dadra and Nagar Haveli	604	471	0	0
8	ISGS/IPPs	590	590	16763	15466
	Total WR	39314	32233	44059	35650

IV	SOUTHERN REGION				
1	Andhra Pradesh	10900	9350	7204	6066
2	Tamil Nadu	11300	8617	6433	4962
3	Karnataka	7800	6499	5213	3549
4	Kerala	3225	2234	1917	760
5	Pondy	320	244	0	0
6	Goa	80	80	0	0
7	ISGS/IPPs			11130	10168
	Total SR	33625	27024	31897	25505
V	NORTH-EASTERN REGION				
1	Manipur	130	91	0	0
2	Meghalaya	280	196	110	95
3	Mizoram	85	60	8	4
4	Nagaland	120	84	20	10
5	Assam	1350	970	220	180
6	Tripura	260	130	100	100
7	Arunachal Pradesh	130	91	0	0
8	ISGS/IPPs			1020	735
	Total NER	2355	1622	1478	1124
	Total All India	129059	105195	131164	107920