

National Load Despatch Centre
Total Transfer Capability for August 2014

Issue Date: 10/08/2014

Issue Time: 2230 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 August 2014 to 31st August 2014	00-24	2500	500	2000	651	1349		
WR-NR	1st August 2014	00-17	4900	500	4400	4380	20		
		23-24							
	2nd August 2014	17-23	4900	500	4400	4380	20		
		00-1215	4900						
	3rd August 2014 to 31st August 2014	1215-24	3950	500	4400	4380	20		
		00-17	4900						
23-24		4900							
		17-23	4900		4400		20		
NR-ER*	1st August 2014 to 7th August 2014	00-06	1000	200	800	293	507		
		06-17'			800	338	462		
		17-18'			900	338	562		
		18-23			900	293	607		
		23-24			800	293	507		
	8th August 2014 to 31st August 2014	00-06	1000	200	800	293	507		
		06-17'			800	358	442		
		17-18'			900	358	542		
		18-23			900	293	607		
		23-24			800	293	507		
ER-NR	1st August 2014 to 31st August 2014	00-17	3400	300	3100	2431	669		
		23-24							
		17-23							
W3-ER ^s	1st August 2014 to 31st August 2014	00-24	1700	300	1400	697	703		
ER-W3	1st August 2014 to 31st August 2014	00-24	1000	300	700	874	0		
WR-SR	1st August 2014 to 8th August 2014	00-24	2100	750	1350	1350	0		
	9th August 2014 to 10th August 2014	00-09	2100	750	1350	1350	0		
		09-24'	1700		950	950	0		
	11th August 2014 to 31st August 2014	00-24	2100	750	1350	1350	0		
SR-WR *	1st August 2014 to 31st August 2014	00-24	No limit is being Specified.						
ER-SR	1st August 2014 to 7th August 2014	00-06	2650	0	2650	2069	581		
		18-24				2114	536		
	8th August 2014	00-06	2650	0	2650	2089	561		
		18-24				2134	516		
	9th August 2014 to 10th August 2014	00-06	2650	0	2650	2585	65		
		06-09'				2577	73		
		09-18'				2650	0		
		18-24				2650	0		
	11th August 2014 to 31st August 2014	00-06	2650	0	2650	2512	138		
		18-24				2577	73		
SR-ER *	1st August 2014 to 31st August 2014	00-24	No limit is being Specified.						

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ER-NER	1st August 2014 to 6th August 2014	00-17	645	50	595	205	390			
		23-24								
		17-23						600	550	345
	7th August 2014	00-07	645	50	595	205	390			
		07-17	420		370		165			
		17-23	420		370		165			
		23-24	420		370		165			
	8th August 2014	00-17	420	50	370	205	165			
		17-23	420		370		165			
		23-24	420		370		165			
	ER-NER	9th August 2014	00-17	420	50	370	205	165		
			17-23	600		550		345		
23-24			645	595		390				
10th August 2014 to 31st August 2014		00-17	645	50	595	205	390			
		23-24								
		17-23	600		550		345			
NER-ER	1st August 2014 to 6th August 2014	00-17	500	100	400	0	400			
		23-24								
		17-23						490	390	390
	7th August 2014	00-07	500	100	400	0	400			
		07-17	270		170		170			
		17-23	240		140		140			
		23-24	270		170		170			
	8th August 2014	00-17	270	100	170	0	170			
		17-23	240		140		140			
		23-24	270		170		170			
	9th August 2014	00-17	270	100	170	0	170			
		17-23	490		390		390			
		23-24	500		400		400			
	10th August 2014 to 31st August 2014	00-17	500	100	400	0	400			
		23-24								
		17-23	490		390	390				

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S1-S2	1st August 2014	00-24	2415	295	2120	2525	0		
	2nd August 2014	00-13	2415	295	2120	2525	0		
		13-24	2700		2405		0		
	3rd August 2014	00-24	2700	295	2405	2525	0		
	4th August 2014	00-24	2700	295	2405	2614	0		
	5th August 2014	00-12	3030	295	2735	2527	208		
		12-24	2750		2455	2527	0		
	6th August 2014 to 8th August 2014	00-24	2750	295	2455	2527	0		
	9th August 2014	06-17	1965	295	1670	2761	0		
		00-06 17-2030	2750	295	2455	2761	0		
		2030-24	2415	295	2120	2761	0		
	10th August 2014	00-530	2415	295	2120	2761	0		
		530-18	2415		2120				
		18-23	2415		2120				
		23-24	2750		2455			335	
11th August 2014	00-24	2750	295	2455	2761	0	335	Revised due to restoration of 400kV Kalivindapattu-Pugalur-1	
12th August 2014 to 14th August 2014	00-24	2750	295	2455	2761	0			
15th August 2014 to 22nd August 2014	00-24	3000	295	2705	2848	0			
23rd August 2014 to 24th August 2014	00-24	2970	295	2675	2837	0			
25th August 2014 to 31st August 2014	00-24	2970	295	2675	3048	0			
Import of Punjab	1st August 2014 to 31st August 2014	00-24	5700	300	5400	3790	1610		
Import TTC for DD & DNH	1st August 2014 to 31st August 2014	00-24	1200	0	1200	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st August 2014 to 7th August 2014	00-17 23-24	9000	200	8800	7250	1550		
		17-23	9500		9300		2050		
	8th August 2014 to 31st August 2014	00-17 23-24	9000	200	8800	6843	1957		
17-23	9500	9300	2457						

* 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).

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\$ As per Simulations, predominant direction of flow is on West to North Corridor. Hence, in case injection point is in Western Region (W1,W2,W3), STOA/PX transactions from West to North on West-East-North corridor shall not be allowed as such transaction increases congestion in the West to North Corridor.

1) S1 comprises of AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Pondicherry

2) W3 comprises of the following regional entities :

a) Chattisgarh Sell transaction, b) Jindal Power Limited (JPL) Stage-I & Stage-II, 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, n)Vandana Vidyut

The figure is based on LTA/MTOA approved by CTU and Allocation figures as per RPCs RTA/REA. In actual Operation, due to Units being on Maintenance/ Fuel shortage/New units being commissioned the LTA/MTOA utilized would vary. RLDC/NLDC would factor this situation on day-ahead basis.

In the eventuality that net schedules exceed ATC, real time curtailments might be effected by RLDCs/NLDC.

In case of TTC Revision due to any shutdown :

- 1) The TTC value will be revised to normal values after restoration of shutdown.
- 2) The TTC value will be revised to normal values if the shutdown is not being availed in real time.

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 (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and Loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda).
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusauli
ER-NR	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) due to transit flows on ER-WR-NR corridor.
W3-ER	(n-1) contingency of 400kV Sterlite-Rourkela S/C
ER-W3	(n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela
WR-SR & ER-SR	1. (n-1) contingency of 400kV Parli(PG)-Sholapur(PG) D/C 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge.
ER-NER	(n-1) contingency of 400 kV Balipara – Bongaigaon D/C leading to thermal loading of 220kV BTPS-Agia
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
S1-S2	(n-1) contingency of 400 kV Kolar-Hosur D/C
Import of DD & DNH	(n-1) contingency of 400/220KV 315MVA ICT at VAPI
Import of Punjab	(n-1) contingency of ICT at Dhuri and (n-1) contingency of 220kV Moga(PG)-Moga(PSTCL)
W3 zone Injection	(n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-Wardha (800 MW SPS setting on each circuit of 400kV Raipur-Wardha)

*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											
NR	1st August 2014	00-17	8300	800	7500	6811	689				
		23-24								17-23	8300
		2nd August 2014	00-17		8300		800			7500	6811
	23-24		17-23	7350		6550		0			
	3rd August 2014 to 31st August 2014	00-17	8300	800	7500	6811	689				
		23-24								17-23	8300
NER	1st August 2014 to 6th August 2014	00-17	645	50	595	205	390				
		23-24								17-23	600
		7th August 2014	00-07		645		50			370	205
	07-17'		420	370	165						
	17-23		420	370	165						
	23'-24		420	370	165						
	8th August 2014	00-17	420	50	370	205	165				
		17-23	420							370	165
		23 -24	420							370	165
	9th August 2014	00-17	420	50	370	205	165				
		17-23'	600							550	345
		23'-24	645							595	390
	10th August 2014 to 31st August 2014	00-17	645	50	595	205	390				
		23-24								17-23	600
	WR										
	SR	1st August 2014 to 7th August 2014	00-06	4750	750	4000	3419	581			
			18-24								06-18'
8th August 2014			00-06	4750		750		4000			3419
		18-24	06-18'		4750		4000		3484	516	
9th August 2014 to 10th August 2014		00-06	4750	750	3600	3927	138				
		06-09'	4750							3927	73
		09-18'	4350							3927	0
		18-24	4350							3927	0
11th August 2014 to 31st August 2014		00-06	4750	750	4000	3862	138				
		18-24								06-18'	4750

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 August 2014 to 7th August 2014	00-06	3500	700	2800	590	2210		
		06-17'			2800	635	2165		
		17-18'	3600		2900	635	2265		
		18-23			2900	590	2310		
		23-24	3500		2800	590	2210		
	8th August 2014 to 31st August 2014	00-06	3500	700	2800	944	1856		
		06-17'			2800	1009	1791		
		17-18'	3600		2900	1009	1891		
		18-23			2900	944	1956		
		23-24	3500		2800	944	1856		
NER	1st August 2014 to 6th August 2014	00-17	500	100	400	0	400		
		23-24			390		390		
		17-23	490		390		390		
	7th August 2014	00-07	500	100	400	0	400		
		07'-17	270		170		170		
		17-23	240		140		140		
		23-24	270		170		170		
	8th August 2014	00-17	270	100	170	0	170		
		17-23	240		140		140		
		23-24	270		170		170		
	9th August 2014	00-17	270	100	170	0	170		
		17'-23	490		390		390		
		23-24	500		400		400		
	10th August 2014 to 31st August 2014	00-17	500	100	400	0	400		
		23-24			390		390		
		17-23	490		390		390		
	WR								
	SR *	1st August 2014 to 31st August 2014	00-24	No limit is being Specified.					

* 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	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) due to transit flows on ER-WR-NR corridor.
	Export	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda).
NER	Import	(n-1) contingency of 400 kV Balipara – Bongaigaon D/C leading to thermal loading of 220kV BTPS-Agia S/C
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
SR	Import	1. (n-1) contingency of 400kV Parli(PG)-Sholapur(PG) D/C 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge.

National Load Despatch Centre
Total Transfer Capability for August 2014

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	26-05-2014	Whole Month	Refer to explanatory notes regarding the change in TTC representation given in the last page.	ER-SR/ S1-S2
			Re-Routing of transactions on West-East-North Corridor discontinued on account of Inter-Regional Loop flows leading to physical congestion on WR-NR	W3-ER
2	13-06-2014	Whole Month	Revised due to change in Load Generation Balance and Commissioning of Sasan Unit-1.	WR-NR
3	26-07-2014	Whole Month	Revised due to commissioning of contingency arrangement of one 500 MW Vindhyachal (Unit-12) with 400kV Vindhyachal-Rihand line.	WR-NR
			Revised due to change in Load generation Balance and Transit flows on ER-WR-NR.	ER-NR
			Revised due to commissioning of 765kV Sholapur-Raichur Circuit-2 and 765kV Wardha-Aurangabad D/C.	WR-SR
			Revised considering (a) 800MW generation at Vallur (b) 2nd Unit at NCTPS.	S1-S2
			Revised due to commissioning of 400/220KV 2X315MVA ICT at Kala S/S along with 220kV Kala-Sayali and 220KV Kala-Khadoli lines	Import of DD & DNH
			Revised due to change in Load-Generation balance and major network change due to commissioning of 400/220 kV Azara (Kukurmara) substation.	ER-NER
			Revised due to augmentation/ modifications in Punjab control area network.	Import of Punjab
4	30-07-2014	Whole Month	Revised based on further simulation. The LTA/MTOA figures are based on allocations, Talcher-II planned outage and the meetings on TTC/ATC taken by CTU on 24th and 30th Jul 2014. Any margins on account of less LTA/MTOA would be offered on day ahead basis.	WR-SR/ ER-SR
			STOA Margin revised due change in LTA/ MTOA/ Allocation.	ER-SR/ S1-S2
5	02-08-2014	02-08-2014	Revised due to Emergency shutdown of Rihand-Dadri Pole-2	WR-NR
		02/08/14 - 03/08/14	Revised due to tripping of NCTPS Unit-1	S1-S2
6	03-08-2014	04/08/14 - 05/08/14	Revised due to extended outage of NCTPS Unit-1	S1-S2
7	04-08-2014	05/08/14 - 31/08/14	Revised considering 400kV Tiruvalam-Kalivendapattu D/C and 400kV Kalivendapattu-Pugalur circuit-1	S1-S2
8	06-08-2014	07/08/14 - 09/08/14	Revised due to shutdown of 400 kV Balipara - Bongaigaon ckt 1	ER - NER/ NER -ER
9	07-08-2014	08/08/14- 31/08/14	STOA Margin revised due to correction in LTA/MTOA figures.	NR-ER/ ER-SR/ W3 Zone Injeccion
10	08-08-2014	09/08/2014 -	Revised due to shutdown of 400 kV Kolar - Hosur D/C line on daily basis on account of stringing works of 765 kV Dharmapuri- Madhugiri	S1-S2
		10/08/2014	Revised due to shutdown of 400 kV Ramagundam-Bhadravati ckt-2	WR-SR

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
11	09-08-2014	09/08/14-10/08/14	Revised due to tripping of 400kV Kalivindapattu - Pugalur - 1 and cancellation of 400kV Kolar-Hosur D/C shutdown.	S1-S2
12	10-08-2014	11-08-2014	Revised due to expected revival of 400kV Kalivindapattu - Pugalur ckt-1	S1-S2
13	10-08-2014	10-08-2014 - 11/08/2014	Revised due to restoration of 400kV Kalivindapattu - Pugalur ckt-1	S1-S2

ASSUMPTIONS IN BASECASE

Month : Aug '14

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	8684	8580	2899	2882
2	Haryana	7640	7545	3372	3372
3	Rajasthan	7336	7246	5231	5267
4	Delhi	4819	4516	1296	1296
5	Uttar Pradesh	11500	11688	6015	5961
6	Jammu & Kashmir	2082	1961	576	568
7	Uttarakhand	1696	1577	887	834
8	Himachal Pradesh	1449	1431	849	830
9	Chandigarh	283	201	0	0
10	ISGS/IPPs			19407	18615
	Total NR	45489	44745	40532	39625
II	EASTERN REGION				
1	West Bengal	6713	5052	4765	3347
2	Jharkhand	1059	753	365	365
3	Orissa	3700	3261	3049	2512
4	Bihar	2167	1706	80	80
5	Damodar Valley Corporation	2325	2308	3524	3029
6	Sikkim	85	50	0	0
7	Bhutan	108	108	1425	1425
8	ISGS/IPPs	300	300	9298	9070
	Total ER	16457	13538	22506	19828
III	WESTERN REGION				
1	Chattisgarh	2767	2215	1732	1326
2	Madhya Pradesh	6327	4793	4795	3686
3	Maharashtra	16000	12658	10208	6620
4	Gujarat	12030	9845	9648	7181
5	Goa	432	310		
6	Daman and Diu	284	191		
7	Dadra and Nagar Haveli	681	632		
8	ISGS/IPPs	1255	1255	18016	17237
	Total WR	39776	31899	44399	36050

ASSUMPTIONS IN BASECASE

Month : Aug '14

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	10892	9690	8223	6905
2	Tamil Nadu	11102	9769	7303	5712
3	Karnataka	7629	6617	7055	5681
4	Kerala	2963	2328	1651	1094
5	Pondy	310	274	0	0
6	Goa	80	80	0	0
7	ISGS/IPPs			8979	8978
	Total SR	32976	28758	33211	28370
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	95	63		
2	Assam	1083	829	250	220
3	Manipur	110	77		
4	Meghalaya	260	182	210	120
5	Mizoram	75	52	12	4
6	Nagaland	100	77	24	18
7	Tripura	250	125	110	110
8	ISGS/IPPs			1310	966
	Total NER	1973	1405	1916	1438
	Total All India	136671	120345	142564	125311