National Load Despatch Centre
Total Transfer Capability for August 2014

Issue Date: 30/07/2014 Issue Time: 1930 hrs Revision No. 4

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 to 31st August 2014	00-17 23-24	4900	500	4400	4380	20		
		17-23	4900		4400		20		
NR-ER*	1st August 2014 to 31st August 2014	00-06	1000	200	800	293	507		
		06-17'			800	338	462		
		17-18'	1100		900	338	562		
		18-23			900	293	607		
		23-24	1000		800	293	507		
ER-NR	1st August 2014 to 31st August 2014	00-17 23-24	3400	300	3100	2431	669		
		17-23					669		
W3-ER$	1st August 2014 to 31st August 2014	00-24	1700	300	1400	697	703		STOA margin revised due to change in LTA/MTOA.
ER-W3	1st August 2014 to 31st August 2014	00-24	1000	300	700	874	0		
WR-SR	1st August 2014 to 31st August 2014	00-24	2100	750	1350	1350	0	300	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.
SR-WR *	1st August 2014 to 31st August 2014	00-24	No limit is being Specified.						
ER-SR	1st August 2014 to 8th August 2014	00-06 18-24	2650	0	2650	2069	581		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.
		06-18'				2114	536		
	9th August 2014 to 31st August 2014	00-06 18-24	2650	0	2650	2512	138		
		06-18'				2557	93		
SR-ER *	1st August 2014 to 31st August 2014	00-24	No limit is being Specified.						
ER-NER	1st August 2014 to 31st August 2014	00-17 23-24	645	50	595	205	390		
		17-23	600		550		345		
NER-ER	1st August 2014 to 31st August 2014	00-17 23-24	500	100	400	0	400		
		17-23	490		390		390		
S1-S2	1st August 2014 to 3rd August 2014	00-24	2415	295	2120	2525	0		STOA margin revised due to change LTA/MTOA/Allocation.
	4th August 2014	00-24	2415	295	2120	2614	0		
	5th August 2014 to 8th August 2014	00-24	2415	295	2120	2525	0		
	9th August 2014 to 14th August 2014	00-24	2415	295	2120	2759	0		
	15th August 2014 to 22nd August 2014	00-24	2675	295	2380	2846	0		
	23rd August 2014 to 24th August 2014	00-24	2640	295	2345	2835	0		
	25th August 2014 to 31st August 2014	00-24	2640	295	2345	3045	0		

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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 31st August 2014	00-17 23-24	9000	200	8800	7250	1550		STOA margin revised due to change in LTA/MTOA/Allocation.
		17-23	9500		9300		2050		

* 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).

$ 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) 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 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) KWPCL, 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 commissionned 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 willl 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) contingnecy 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 to 31st August 2014	00-17 23-24	8300	800	7500	6811	689		
		17-23	8300		7500		689		
NER	1st August 2014 to 31st August 2014	00-17 23-24	645	50	595	205	390		
		17-23	600		550		345		
WR									
SR	1st August 2014 to 8th August 2014	00-06 18-24	4750	750	4000	3419	581	300	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.
		06-18'	4750		4000	3464	536		
	9th August 2014 to 31st August 2014	00-06 18-24	4750	750	4000	3862	138	300	
		06-18'	4750		4000	3907	93		

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 31st 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		
NER	1st August 2014 to 31st August 2014	00-17 23-24	500	100	400	0	400		
		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.
		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).
	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 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.

*Primary constraints

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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

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**