#### National Load Despatch Centre Total Transfer Capability for August 2015

Issue Date: 29/06/2015 Issue Time: 1200 hrs Revision No. 2

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 Aug 2015 to 31st Aug 2015	00-24	2500	500	2000	421	1579		STOA Margin revised due to revised ISGS allocation.
WR-NR*	1st Aug 2015 to	00-17 23-24	5100	500	4600	5277	0		10 visou 15 op unsounom
***************************************	31st Aug 2015	17-23	5100	200	4600	02,7	0		
	1st Aug 2015 to	00-06	2000		1800	293	1507		
NR-ER*	31st Aug 2015	06-18' 18-24	2000 2000	200	1800 1800	358 293	1442 1507		
ER-NR*	1st Aug 2015 to	00-17 23-24	4800	300	4500	2431	2069		
·	31st Aug 2015	17-23	4800		4500	-	2069		
W3-ER <sup>\$</sup>	1st Aug 2015 to	00-24					s being specified.		
	31st Aug 2015 1st Aug 2015 to						allowed via W3-EI	R-NR.	
ER-W3	31st Aug 2015	00-24	1000	300	700	874	0		
WR-SR	1st Aug 2015 to	00-24	2300	750	1550	1550	0		
	31st Aug 2015 1st Aug 2015 to		2500	750	1550				
SR-WR*	31st Aug 2015	00-24		No limit is being Specified.					
	1st Aug 2015 to	00-06				1657	993		LTA/MTOA revised due to Talcher
	21st Aug 2015	18-24 06-18'	2650	0	2650	1722	928		Stage 2 Unit 3 Shut-Down and Jhajjar Re-Allocation
ER-SR	22nd Aug 2015 to	00-06				2100	550		LTA/MTOA revised due to Jhajjar
	31st Aug 2015	18-24 06-18'	2650	0	2650	2165	485		Re-Allocation
SR-ER *	1st Aug 2015 to	00-24				No limit i	s being Specified.	I.	
	31st Aug 2015					I		ı	
ER-NER	1st Aug 2015 to	00-17 23-24	1000	40	960	210	750		
·	31st Aug 2015	17-23	1030	,	990		780		
NER-ER	1st Aug 2015 to	00-17 23-24	1310	30	1280	0	1280		
	31st Aug 2015	17-23	1300	40	1260		1260		
	1st Aug 2015 to	00-24	3235	350	2885	2245	640		
S1-S2	25th Aug 2015 26th Aug 2015 to	00-24	3235	350	2885	2400	485		
(Rev 0)	28th Aug 2015 29th Aug 2015 to	00-24	3235	350	2885	2599	286		
Import of	31st Aug 2015								
Punjab (Rev 0)	1st Aug 2015 to 31st Aug 2015	00-24	5700	300	5400	3790	1610		
Import TTC for DD & DNH (Rev 0)	1st Aug 2015 to 31st Aug 2015	00-24	1200	0	1200		OA as per ex-pp edule		
W3 zone	1st Aug 2015 to	00-17 23-24	9400	200	9200	7236	1964		
Injection	31st Aug 2015	17-23	9900	200	9700	, 230	2464		

<sup>\*</sup> 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 Telangana, AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Puducherry
- 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) 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 400kV Singrauli-Anpara & 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).
ER-NR	N-1 contingency of 400 kV Biharshariff- Lakhisarai S/C
ER-W3	n-1 of 400 kV Wardha – Parli will lead to 30 degrees angular separation between Wardha and Parli.     (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)
WR-SR & ER-SR	(n-1) of 400 kV Wardha – Parli will lead to 30 degrees angular separation between Wardha and Parli.     (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)     3. 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 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa
S1-S2	(n-1) contingency of one circuit 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	1. n-1 of 400 kV Wardha – Parli will lead to 30 degrees angular separation between Wardha and Parli. 2. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)

<sup>\*</sup>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 Aug 2015 to 31st Aug 2015	00-17 23-24	7300	800	6500	7708	0		
	518t Aug 2015	17-23	7300		6500		0		
NER	1st Aug 2015 to 31st Aug 2015	00-17 23-24	1000	40	960	210	750		
		17-23	1030		990		780		
WR									
	1st Aug 2015 to	00-06 18-24	4950	750	4200	3207	993		LTA/MTOA revised due to Talcher Stage 2 Unit 3 Shut-
SR	21st Aug 2015	06-18'	4950	750	4200	3272	928		Down and Jhajjar Re- Allocation
	22nd Aug 2015 to 31st Aug 2015	00-06 18-24	4950	750	4200	3650	550		LTA/MTOA revised due to Jhajjar Re-Allocation
	10 5181 Aug 2015	06-18'	4950		4200	3715	485		majjai Ke-Anocation

### 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 Aug 2015 to 31st Aug 2015	00-06 06-18'	4500	700	3800 3800	714 779	3086 3021		STOA Margin revised due to revised ISGS allocation.
	318t Aug 2013	18-24	4500		3800	714	3086		
NER	1st Aug 2015 to	00-17 23-24	1310	30	1280	0	1280		
	31st Aug 2015	17-23	1300	40	1260		1260		
WR									
VV IX									
SR *	1st Aug 2015 to 31st Aug 2015	00-24		No limit is being Specified.					

<sup>\*</sup> 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**

23111111111	Constraints	
		(n-1) contingency of 400 kV Biharshariff- Lakhisarai S/C
	Import	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high loop
NR	Import	flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra
INIX		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.
	Export	(n-1) contingency of 400 kV Saranath-Pusauli
NER	Import	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA
NEK	Export	ICT at Misa
		1. n-1 of 400 kV Wardha – Parli will lead to 30 degrees angular separation between Wardha and Parli.
		2. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)
SR	Import	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.
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<sup>\*</sup>Primary constraints

# National Load Despatch Centre Total Transfer Capability for August 2015

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected			
1	16-06-2015	Whole	Revised considering skewed sharing of flows on WR-NR	Import of NR			
_	10 00 2015	month	and ER-NR corridor in the range 70:30	import of ivit			
		1-8-15 -	LTA/MTOA revised due to Talcher Stage 2 Unit 3 Shut-Down				
2	29-06-2015	21-8-15	21-8-15 and Jhajjar Re-Allocation				
	2 29-06-2015			NR-WR			
			LTA/MTOA revised due to Jhajjar Re-Allocation				

ASSUI	MPTIONS IN BASECASE				
				Month : August '15	
S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
I	NORTHERN REGION	,	· · ·		Ì
1	Punjab	8713	8161	4857	4826
2	Haryana	8363	7722	3103	3103
3	Rajasthan	9308	8711	5400	5399
4	Delhi	5197	4629	1251	1251
5	Uttar Pradesh	13078	14381	6632	6641
6	Uttarakhand	1707	1599	775	698
7	Himachal Pradesh	1212	1081	1132	1137
8	Jammu & Kashmir	2252	1650	634	589
9	Chandigarh	304	250	0	0
10	ISGS/IPPs	0	(	20759	19350
	Total NR	50134	48182	44543	42994
II	EASTERN REGION				
	Bihar	2295	1977		110
	Jharkhand	898	692	499	404
	Damodar Valley Corporation	2555	2323	3100	3043
4	Orissa	3491	2769	2847	2160
	West Bengal	6943	6534		3576
	Sikkim	80	40		0
	Bhutan	107	107		1000
8	ISGS/IPPs	607	607	10535	9591
	Total ER	16976	15049	23307	19884
III	WESTERN REGION				
	Maharashtra	18462	13082		7174
	Gujarat	13136	8742		6180
	Madhya Pradesh	7004	4347		2521
	Chattisgarh	3488	2084		1036
	Daman and Diu	287	250		0
	Dadra and Nagar Haveli	675	640		0
	Goa-WR	474	286		0
8	ISGS/IPPs	1059	1059		21391
	Total WR	44585	30489	52810	38302

IV	SOUTHERN REGION				
1	Andhra Pradesh	6293	6002	5623	5039
2	Telangana	6866	6242	2944	2103
3	Karnataka	7897	6360	7633	5727
4	Tamil Nadu	13380	11277	8916	7189
5	Kerala	3271	1992	1694	693
6	Pondy	336	273	0	0
7	Goa-SR	69	69	0	0
8	ISGS/IPPs	0	0	8665	8530
	Total SR	38112	32215	35475	29281
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	134	100	0	0
2	Assam	1070	1003	284	242
3	Manipur	133	124	0	0
4	Meghalaya	305	205	198	148
5	Mizoram	71	44	4	3
6	Nagaland	111	115	21	16
7	Tripura	270	170	110	110
8	ISGS/IPPs	7	7	1554	1464
	Total NER	2101	1768	2171	1983
	Total All India	151000	107700	150206	132444
	Total All India	151909	127703	158306	13244