

National Load Despatch Centre
Total Transfer Capability for October 2015

Issue Date: 02/09/2015

Issue Time: 1220 hrs

Revision No. 3

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 Oct 2015 to 31st Oct 2015	00-24	2500	500	2000	706	1294		
WR-NR*	1st Oct 2015 to 31st Oct 2015	00-24	6400	500	5900	5638	262		
NR-ER*	1st Oct 2015 to 31st Oct 2015	00-06	2000	200	1800	293	1507		
		06-18'	2000		1800	358	1442		
		18-24	2000		1800	293	1507		
ER-NR*	1st Oct 2015 to 31st Oct 2015	00-24	4800	300	4500	2431	2069		
W3-ER ^s	1st Oct 2015 to 31st Oct 2015	00-24	No limit is being specified. No Re-routing is allowed via W3-ER-NR.						
ER-W3	1st Oct 2015 to 31st Oct 2015	00-24	1000	300	700	874	0		
WR-SR	1st Oct 2015 to 31st Oct 2015	00-24	2300	750	1550	1550	0		
SR-WR *	1st Oct 2015 to 31st Oct 2015	00-24	No limit is being Specified.						
ER-SR	1st Oct 2015 to 31st Oct 2015	00-06	2650	0	2650	2585	65		
		18-24				2650	0		
SR-ER *	1st Oct 2015 to 31st Oct 2015	00-24	No limit is being Specified.						
S1-S2	1st Oct 2015 to 31st Oct 2015	00-24	S1-S2 corridor TTC/ATC is uploaded on NLDC website under Intra-Regional Section in Monthly ATC.						
ER-NER	1st Oct 2015 to 31st Oct 2015	00-17	1390	45	1345	210	1135		
		23-24					1135	880	
NER-ER	1st Oct 2015 to 31st Oct 2015	00-17	1415	45	1370	0	1370		
		23-24					1250	1205	
W3 zone Injection	1st Oct 2015 to 31st Oct 2015	00-17	9400	200	9200	7576	1624		
		23-24					9900	9700	

* 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) KWPCCL, n)Vandana Vidyt

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 400kV Singrauli-Anpara & High loading of 765 kV Agra-Gwalior (1400 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 Saranath-Pusauli
ER-NR	N-1 contingency of 400 kV Biharshariff- Lakhisarai S/C
ER-W3	1. n-1 of 400 kV Wardha – Parli will lead to 30 degrees angular Octaration between Wardha and Parli. 2. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)
WR-SR & ER-SR	1. (n-1) of 400 kV Wardha – Parli will lead to 30 degrees angular Octaration between Wardha and Parli. 2. (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
W3 zone Injection	1. n-1 of 400 kV Wardha – Parli will lead to 30 degrees angular Octaration between Wardha and Parli. 2. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)

*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 Oct 2015 to 31st Oct 2015	00-05	9100	800	8300	8069	231		
		05-08	9600		8800		731		
		08-19	9100		8300		231		
		19-24	8500		7700		0		
NER	1st Oct 2015 to 31st Oct 2015	00-17	1390	45	1345	210	1135		
		23-24			1090		880		
WR									
SR	1st Oct 2015 to 31st Oct 2015	00-06	4950	750	4200	4135	65		
		18-24			4200		0		
		06-18	4950		4200	0			
* 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).									
* For approving STOA Bilateral transactions, margin available in Simultaneous Import of NR would be apportioned on WR-NR Corridor & ER-NR Corridor in the following ratio: Margin in Simultaneous import of NR = A WR-NR ATC =B ER-NR ATC = C Margin for WR-NR applicants = B * A/(B+C) Margin for ER-NR Applicants = C * A/(B+C) Example: Margin for WR-NR applicants from 00-05 hours = 231 * 5900/(5900+4500) = 131 Margin for ER-NR applicants from 00-05 hours = 231 * 4500/(5900+4500) = 100									

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 Oct 2015 to 31st Oct 2015	00-06	4500	700	3800	999	2801		
		06-18			3800	1064	2736		
		18-24	4500		3800	999	2801		
NER	1st Oct 2015 to 31st Oct 2015	00-17	1415	45	1370	0	1370		
		23-24	1250	45	1205		1205		
WR									
SR *	1st Oct 2015 to 31st Oct 2015	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	(n-1) contingency of 400 kV Biharshariff- Lakhisarai S/C High loading of 765 kV Agra-Gwalior (1400 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 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
	Export	ICT at Misa
SR	Import	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) 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.

*Primary constraints

ASSUMPTIONS IN BASECASE					
				Month : October '15	
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	7657	6004	4196	4242
2	Haryana	7576	6766	3317	3317
3	Rajasthan	9178	9897	6114	6110
4	Delhi	4449	2882	1156	1156
5	Uttar Pradesh	12168	10933	5913	5851
6	Uttarakhand	1573	1277	556	404
7	Himachal Pradesh	1253	978	418	435
8	Jammu & Kashmir	2244	1746	240	232
9	Chandigarh	238	147	0	0
10	ISGS/IPPs	0	0	18220	12306
	Total NR	46336	40630	40130	34053
II	EASTERN REGION				
1	Bihar	2686	1884	240	120
2	Jharkhand	995	793	552	300
3	Damodar Valley Corporation	2487	2030	3831	3261
4	Orissa	3593	2796	3378	2483
5	West Bengal	7396	6253	5086	4000
6	Sikkim	99	59	0	0
7	Bhutan	338	337	1490	1150
8	ISGS/IPPs	610	566	11062	9925
	Total ER	18204	14717	25639	21239
III	WESTERN REGION				
1	Maharashtra	20077	12639	14900	8194
2	Gujarat	14392	8618	11287	5509
3	Madhya Pradesh	8008	5948	4832	3049
4	Chattisgarh	3838	3825	2611	2851
5	Daman and Diu	310	237	0	0
6	Dadra and Nagar Haveli	784	581	0	0
7	Goa-WR	521	298	0	0
8	ISGS/IPPs	1056	1055	23713	21264
	Total WR	48986	33200	57341	40867

IV	SOUTHERN REGION				
1	Andhra Pradesh	5870	5494	5192	4701
2	Telangana	7082	6346	3246	2362
3	Karnataka	7654	5943	7091	5422
4	Tamil Nadu	12244	10949	6990	5376
5	Kerala	3271	2218	1782	820
6	Pondy	323	278	0	0
7	Goa-SR	86	76	0	0
8	ISGS/IPPs	0	0	9622	9622
	Total SR	36530	31304	33923	28303
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	107	44	0	0
2	Assam	969	719	265	195
3	Manipur	113	69	0	0
4	Meghalaya	295	197	214	163
5	Mizoram	76	44	4	4
6	Nagaland	95	70	16	6
7	Tripura	260	162	105	105
8	ISGS/IPPs	7	7	1313	856
	Total NER	1922	1312	1917	1329
	Total All India	151979	121164	158951	125791