National Load Despatch Centre
Total Transfer Capability for November 2015

Issue Date: 24/09/2015 Issue Time: 1130 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 Nov 2015 to 30th Nov 2015	00-24	2500	500	2000	706	1294		
WR-NR*	1st Nov 2015 to 30th Nov 2015	00-24	7700	500	7200	5638	1562	1300	Revised due to revision in 765kV Gwalior-Agra Ckt-1&2 SPS setting.
NR-ER*	1st Nov 2015 to 30th Nov 2015	00-06	2000	200	1800	293	1507		
		06-18'	2000		1800	358	1442		
		18-24	2000		1800	293	1507		
ER-NR*	1st Nov 2015 to 30th Nov 2015	00-24	3400	300	3100	2431	669		
W3-ER$	1st Nov 2015 to 30th Nov 2015	00-24	No limit is being specified. No Re-routing is allowed via W3-ER-NR.						
ER-W3	1st Nov 2015 to 30th Nov 2015	00-24	1000	300	700	874	0		
WR-SR	1st Nov 2015 to 30th Nov 2015	00-24	2300	750	1550	1550	0		
SR-WR *	1st Nov 2015 to 30th Nov 2015	00-24	No limit is being Specified.						
ER-SR	1st Nov 2015 to 30th Nov 2015	00-06 18-24	2650	0	2650	2585	65		
		06-18'				2650	0		
SR-ER *	1st Nov 2015 to 30th Nov 2015	00-24	No limit is being Specified.						
ER-NER	1st Nov 2015 to 30th Nov 2015	00-17 23-24	1310	45	1265	210	1055		
		17-23	1100		1055		845		
NER-ER	1st Nov 2015 to 30th Nov 2015	00-17 23-24	1420	45	1375	0	1375		
		17-23	1370	45	1325		1325		
W3 zone Injection	1st Nov 2015 to 30th Nov 2015	00-17 23-24	11000	200	10800	7576	3224	1600	Revised due to commissioning of 765kV Dharamjaigarh-Jabalpur D/C.
		17-23	11000		10800		3224	1100	
S1-S2	1st Nov 2015 to 30th Nov 2015	00 -24	S1-S2 corridor TTC/ATC is uploaded on NLDC website under Intra-Regional Section in Monthly ATC.						

* 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) 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.

Note on LTA/MTOA towards SR: Existing LTA/MTOA plus notional LTA/MTOA granted by CTU as per CERC orders dated 16th Feb 2015 and 3rd Jul 2015 in petition nos 92/MP/2014 and 92/MP/2015. Notional LTA/MTOA will be operationalized based on margins available from time to time.

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.

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Limiting Constraints

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.
WR-NR	1. (n-1) Contingnecy of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. 2.High Loading of 400kV Singrauli-Anpara S/C.
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli
ER-NR	1. n-1 contingency of one cicuit of 400 kV Biharshariff- Lakhisarai leads to high loading on the other cicuit 2. n-1 contingency of one circuit of 400 kV Farakka-Malda leads to high loading of the other circuit
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. n-1 cntingency of 400/132 kV, 2 x 200 MVA ICTs at Silchar
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 Nov 2015 to 30th Nov 2015	00-05	11000	800	10200	8069	2131	1900	Revised due to revision in 765kV Gwalior-Agra Ckt-1&2 SPS setting.
		05-08'	11100		10300		2231	1900	
		08-19'	11000		10200		2131	1900	
		19-24	10250		9450		1381	1750	
NER	1st Nov 2015 to 30th Nov 2015	00-17 23-24	1310	45	1265	210	1055		
		17-23	1100		1055		845		
WR									
SR	1st Nov 2015 to 30th Nov 2015	00-06 18-24	4950	750	4200	4135	65		
		06-18'	4950		4200	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+3100) = 151
Margin for ER-NR applicants from 00-05 hours = 231 * 4500/(5900+3100) = 80

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 Nov 2015 to 30th Nov 2015	00-06	4500	700	3800	999	2801		
		06-18'			3800	1064	2736		
		18-24	4500		3800	999	2801		
NER	1st Nov 2015 to 30th Nov 2015	00-17 23-24	1420	45	1375	0	1375		
		17-23	1370	45	1325		1325		
WR									
SR *	1st Nov 2015 to 30th Nov 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
		1. (n-1) Contingnecy of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. 2.High Loading of 400kV Singrauli-Anpara S/C.
	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 ICT at Misa. n-1 cntingency of 400/132 kV, 2 x 200 MVA ICTs at Silchar
	Export	(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.
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

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	26/08/2015	Whole Month	Revised due to commissioning of 765kV Gwalior Ckt-1&2, 765kV Phagi-Bhiwani S/C and STOA margin revised due to operationalization of MTOA.	WR-NR/ Import of NR
			STOA Margin revised due to Operationalization of LTA.	W3 Zone Injection
2	2/9/2015	Whole Month	A remark has been put on Simultaneous Import of NR for approving STOA Bilateral Transactions	Import of NR
3	24/9/2015	Whole Month	Revised due to revision in 765kV Gwalior-Agra Ckt-1&2 SPS setting.	WR-NR/ Import of NR
			Revised due to commissioning of 765kV Dharamjaigarh-Jabalpur D/C.	W3 Zone Injection

ASSUMPTIONS IN BASECASE					
				Month : November '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	5559	3491	2152	2085
2	Haryana	6228	2948	2217	2217
3	Rajasthan	9325	8655	5570	5514
4	Delhi	3175	1549	790	790
5	Uttar Pradesh	12198	11682	5569	5587
6	Uttarakhand	1679	1218	525	228
7	Himachal Pradesh	1376	925	336	263
8	Jammu & Kashmir	2339	2352	401	255
9	Chandigarh	172	75	0	0
10	ISGS/IPPs	0	0	19083	11552
	Total NR	42053	32894	36643	28491
II	EASTERN REGION				
1	Bihar	2831	2132	180	120
2	Jharkhand	1049	914	540	360
3	Damodar Valley Corporation	2517	2132	3660	2748
4	Orissa	3672	2946	3365	1842
5	West Bengal	6333	5916	4695	3051
6	Sikkim	125	102	0	0
7	Bhutan	0	0	0	0
8	ISGS/IPPs	609	559	10625	9607
	Total ER	17137	14700	23065	17728
III	WESTERN REGION				
1	Maharashtra	20822	13093	14523	7312
2	Gujarat	13593	9878	10498	7289
3	Madhya Pradesh	9763	6885	4479	3426
4	Chattisgarh	3676	2005	2743	1102
5	Daman and Diu	306	229	0	0
6	Dadra and Nagar Haveli	783	562	0	0
7	Goa-WR	511	288	0	0
8	ISGS/IPPs	982	973	27229	23303
	Total WR	50436	33913	59472	42431

IV	SOUTHERN REGION				
1	Andhra Pradesh	5629	5313	4759	4284
2	Telangana	6366	6065	2427	1899
3	Karnataka	7697	5550	6984	5307
4	Tamil Nadu	11912	11319	6646	5746
5	Kerala	3445	2132	1796	826
6	Pondy	336	220	0	0
7	Goa-SR	85	85	0	0
8	ISGS/IPPs	0	0	10043	9773
	Total SR	35470	30684	32655	27835
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	94	40	0	0
2	Assam	954	698	267	198
3	Manipur	103	56	0	0
4	Meghalaya	301	179	155	87
5	Mizoram	69	41	4	4
6	Nagaland	82	63	8	6
7	Tripura	224	131	106	106
8	ISGS/IPPs	7	7	1303	847
	Total NER	1834	1215	1843	1248
	Total All India	146930	113407	153679	117734