National Load Despatch Centre
Total Transfer Capability for May 2015

Issue Date: 21/04/2015 Issue Time: 1715 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 May 2015 to 31st May 2015	00-24	2500	500	2000	706	1294		
WR-NR*	1st May 2015 to 31st May 2015	00-17 23-24	5100	500	4600	5157	0		
		17-23	5100		4600		0		
NR-ER*	1st May 2015 to 31st May 2015	00-06	2000	200	1800	293	1507		
		06-18'	2000		1800	358	1442		
		18-24	2000		1800	293	1507		
ER-NR*	1st May 2015 to 31st May 2015	00-17 23-24	3400	300	3100	2431	669	300	Revised considering reviwed thermal ratings of the lines in ER and expected flows on ER-NR
		17-23	3400		3100		669	200	
W3-ER$	1st May 2015 to 31st May 2015	00-24	No limit is being specified. No Re-routing is allowed via W3-ER-NR.						
ER-W3	1st May 2015 to 31st May 2015	00-24	1000	300	700	874	0		
WR-SR	1st May 2015 to 31st May 2015	00-24	2300	750	1550	1550	0		
SR-WR *	1st May 2015 to 31st May 2015	00-24	No limit is being Specified.						
ER-SR	1st May 2015 to 31st May 2015	00-06 18-24	2650	0	2650	2385	265		
		06-18'				2450	200		
SR-ER *	1st May 2015 to 31st May 2015	00-24	No limit is being Specified.						
ER-NER	1st May 2015 to 31st May 2015	00-17 23-24	650	40	610	210	400		
		17-23	720		680		470		
NER-ER	1st May 2015 to 31st May 2015	00-17 23-24	545	30	515	0	515		
		17-23	450	40	410		410		
S1-S2	1st May 2015 to 31st May 2015	00-24	2830	315	2515	2535	0		
Import of Punjab	1st May 2015 to 31st May 2015	00-24	5700	300	5400	3790	1610		
Import TTC for DD & DNH	1st May 2015 to 31st May 2015	00-24	1200	0	1200	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st May 2015 to 31st May 2015	00-17 23-24	9400	200	9200	7094	2106		
		17-23	9900		9700		2606		

* 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).
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli
ER-NR	(n-1) contingnecy of Kahalgaon-Banka S/C
ER-W3	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)
WR-SR & ER-SR	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.
ER-NER	(n-1) contingnecy of Kahalgaon-Banka S/C
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)

*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 May 2015 to 31st May 2015	00-17 23-24	8500	800	7700	7588	112	300	Revised considering reviwed thermal ratings of the lines in ER and expected flows on ER-NR corridor
		17-23	8500		7700		112	200	
NER	1st May 2015 to 31st May 2015	00-17 23-24	650	40	610	210	400		
		17-23	720		680		470		
WR									
SR	1st May 2015 to 31st May 2015	00-06 18-24	4950	750	4200	3935	265		
		06-18'	4950		4200	4000	200		

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 May 2015 to 31st May 2015	00-06	4500	700	3800	999	2801		
		06-18'			3800	1064	2736		
		18-24	4500		3800	999	2801		
NER	1st May 2015 to 31st May 2015	00-17 23-24	660	30	630	0	630		
		17-23	675	40	635		635		
WR									
SR *	1st May 2015 to 31st May 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) contingnecy of Kahalgaon-Banka S/C
		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 Saranath-Pusauli
NER	**Import**	(n-1) contingnecy of Kahalgaon-Banka S/C
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 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) D/C.
		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	12-02-2015	Whole Month	Margin revised due to cancellation of LTA/MTOA	NR-WR/ ER-W3
2	02-03-2015	Whole Month	STOA Margins revised due to grant of MTOA from Chattisgarh to KSEB by CTU.	W3-ER/ W3 Zone
			Revised due to commissioning of Vallur Unit-3	S1-S2
3	31-03-2015	Whole Month	Revised considering the commissioning of Sasan Unit-6 and reviewed HVDC set points.	WR-NR
			Revised considering the commissioning of 765kV Pune-Sholapur S/C.	WR-SR
4	21-04-2015	Whole Month	Revised considering reviwed thermal ratings of the lines in ER and expected flows on ER-NR corridor	ER-NR

ASSUMPTIONS IN BASECASE

Month : May '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	7577	6617	3463	3477
2	Haryana	5856	5210	2202	2203
3	Rajasthan	7738	7467	4717	4717
4	Delhi	5200	4674	1323	1323
5	Uttar Pradesh	12604	12834	6533	6524
6	Jammu & Kashmir	2166	1404	443	441
7	Uttarakhand	1638	1285	830	496
8	Himachal Pradesh	1383	1127	704	624
9	Chandigarh	292	194	0	0
10	ISGS/IPPs			18480	15160
	Total NR	**44454**	**40812**	**38695**	**34965**
II	EASTERN REGION				
1	West Bengal	7550	6800	5200	3700
2	Jharkhand	1070	900	470	380
3	Orissa	3950	3200	3400	2500
4	Bihar	2600	2140	180	0
5	Damodar Valley Corporation	2675	2400	3800	3400
6	Sikkim	85	50	-	-
7	Bhutan			250	140
8	ISGS/IPPs			10005	8325
	Total ER	**17930**	**15490**	**23305**	**18445**
III	WESTERN REGION				
1	Chattisgarh	3336	2801	1606	1313
2	Madhya Pradesh	7271	6314	3649	3011
3	Maharashtra	19250	17030	15092	12163
4	Gujarat	13471	1238	10322	8765
5	Goa	438	347		
6	Daman and Diu	288	264		
7	Dadra and Nagar Haveli	687	665		
8	ISGS/IPPs	1058	1058	22774	22774
	Total WR	**45799**	**29717**	**53443**	**48026**

ASSUMPTIONS IN BASECASE

Month : May '15

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
IV	**SOUTHERN REGION**				
1	Telangana	5580	5568	2354	2173
2	Andhra Pradesh	5593	5592	5077	4550
3	Tamil Nadu	12051	10398	7068	6424
4	Karnataka	8046	7046	7080	5576
5	Kerala	3328	2336	1939	770
6	Pondy	374	294		
7	Goa	89	89		
8	ISGS/IPPs			9180	9180
	Total SR	**35061**	**31323**	**32698**	**28673**
V	**NORTH-EASTERN REGION**				
1	Arunachal Pradesh	86	53	0	0
2	Assam	753	640	215	200
3	Manipur	83	53	0	0
4	Meghalaya	296	211	140	92
5	Mizoram	58	40	4	3
6	Nagaland	76	63	16	8
7	Tripura	244	164	110	110
8	ISGS/IPPs			990	738
	Total NER	**1596**	**1224**	**1475**	**1151**
	Total All India	**144840**	**118566**	**149616**	**131260**