

**National Load Despatch Centre
Total Transfer Capability for June 2014**

Issue Date: 02/05/2014

Issue Time: 1500 hrs

Revision No. 5

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 June 2014 to 30th June 2014	00-24	2500	500	2000	297	1703		Margin revised due to incorporation of existing Power Allocation.
WR-NR	1st June 2014 to 30th June 2014	00-17	4200	500	3700	3992	0		Margin revised due to Commissioning of Sasan Unit-4.
		23-24					0		
		17-23					0		
NR-ER*	1st June 2014 to 30th June 2014	00-06	1000	200	800	293	507		Margin revised due to incorporation of existing Solar Power Allocation to SR, ER, NER constituents between 6 hrs - 18 hrs in LTA figures and allocation data available on RPCs RTA/REA.
		06-17'			800	423	377		
		17-18'	1100		900	423	477		
		18-23			900	293	607		
		23-24	1000		800	293	507		
ER-NR [§]	1st June 2014 to 30th June 2014	00-17	3800	300	3500	2431	1069		Margin revised considering the LTA/MTOA allocation available in RPCs RTA/REA.
		23-24					1069		
17-23									
W3-ER [§]	1st June 2014 to 30th June 2014	00-24	1800	300	1500	551	949		Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA and Re-routing of existing MTOA granted by CTU.
ER-W3	1st June 2014 to 30th June 2014	00-24	1000	300	700	874	0		Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA.
WR-SR	1st June 2014 to 30th June 2014	00-24	1000	0	1000	1000	0		
SR-WR *	1st June 2014 to 30th June 2014	00-24	1000	0	1000	0	1000		
ER-SR	1st June 2014 to 30th June 2014	00-06	750	0	750	593	157		Margin revised due to incorporation of existing Solar Power Allocation to Karnataka between 6 hrs-18 hrs in LTA figures.
		18-24					112		
SR-ER *	1st June 2014 to 30th June 2014	00-17	1100	0	1100	197	903		
		23-24					903		
		17-23					903		
ER-NER	1st June 2014 to 30th June 2014	00-06	550	50	500	205	295		Margin revised considering the LTA/MTOA allocation available in RPCs RTA/REA and due to incorporation of existing Solar Power Allocation to Assam.
		18-24					290		
NER-ER	1st June 2014 to 30th June 2014	00-17	500	100	400	0	400		
		23-24					350		
		17-23					350		
S1-S2	1st June 2014 to 30th June 2014	00-24	6200	500	5700	5658	42		Margin revised due to Allocation of 150 MW TANGEDCO.
Import of Punjab	1st June 2014 to 30th June 2014	00-24	5700	300	5400	3790	1610	100	Revised due to augmentation/modifications in Punjab control area network.
Import TTC for DD & DNH	1st June 2014 to 30th June 2014	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st June 2014 to 30th June 2014	00-17	9000	200	8800	7050	1750		Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA and existing MTOA granted by CTU.
		23-24					2250		
17-23									

* Fifty Percent (50 %) Counter flow benefit on account of LTA/MTOA transactions in the reverse direction would be considered for advanced transactions (Bilateral &

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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) KWPC, 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 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.

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 high loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda.
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusauli
ER-NR	(n-1) contingency of one circuit of 400kV Farakka –Malda D/C
W3-ER	(n-1) contingency of 400kV Sterilte-Rourkela S/C
ER-W3	(n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela
WR-SR & ER-SR	1. Commissioning of 765kV Raichur-Sholapur S/C 2. Based on the operational experience after the synchronization of SR grid with NEW grid and due to inadvertent variation of 765kV Raichur-Sholapur line flow, observation of Low Frequency Oscillations(LFO) 3. Considering transfer capability assessment by CTU on NEW-SR corridor.
SR-WR	Bhadrawati HVDC B/B link capacity
SR-ER	(n-1) and (n-1-1) contingencies of 400kV Talcher-Rourkela D/C
ER-NER	(n-1) contingency of one circuit of 400 kV Balipara – Bongaigaon D/C
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 line, 400kV Hosur-Salem D/C
Import of Punjab	(n-1) contingency of ICT at Dhuri and (n-1) contingency of 220kV Moga(PG)-Moga(PSTCL)
W3 zone Injection	(n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section

*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 June 2014 to 30th June 2014	00-17 23-24	8000	800	7200	6423	777		Margin revised due to Commissioning of Sasan Unit-4 & considering the LTA/MTOA allocation available in RPCs RTA/REA.
		17-23	8000		7200		777		
NER	1st June 2014 to 30th June 2014	00-06 18-24	550	50	500	205	295		Margin revised considering the LTA/MTOA allocation available in RPCs RTA /REA and due to incorporation of existing Solar Power Allocation to Assam.
		06-18'	550		500		210		
WR									
SR	1st June 2014 to 30th June 2014	00-06 18-24	1750	0	1750	1593	157		Margin revised due to incorporation of existing Solar Power Allocation to Karnataka between 6 hrs -18 hrs in LTA figures.
		06-18'	1750		1750		1638		

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 June 2014 to 30th June 2014	00-06	3500	700	2800	590	2210		Margin revised due to incorporation of existing Solar Power Allocation to SR, ER, NER constituents between 6 hrs -18 hrs in LTA figures and allocation data available on RPCs RTA/REA.	
		06-17'	3500		2800		720			2080
		17-18	3600		2900		720			2180
		18-23	3600		2900		590			2310
		23-24	3500		2800		590			2210
NER	1st June 2014 to 30th June 2014	00-17 23-24	500	100	400	0	400			
		17-23	450		350		350			
WR										
SR*	1st June 2014 to 30th June 2014	00-17 23-24	2100	0	2100	197	1903			
		17-23	2100		2100		1903			

* 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 one circuit of 400kV Farakka –Malda D/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.
	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 one circuit of 400 kV Balipara – Bongaigaon D/C
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
SR	Import	1. Commissioning of 765kV Raichur-Sholapur S/C 2. Based on the operational experience after the synchronization of SR grid with NEW grid and due to inadvertent variation of 765kV Raichur-Sholapur line flow, observation of Low Frequency Oscillations(LFO). 3. Considering transfer capability assessment by CTU on NEW-SR corridor.
	Export	(n-1) and (n-1-1) contingencies of 400kV Talcher-Rourkela D/C

*Primary constraints

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	25.03.2014	1	Margin revised due to withdrawal/cancellation of 150 MW MTOA from Corporate Power Limited	ER-SR
			Re-Routing of transactions on West-East-North Corridor discontinued on account of Inter-Regional Loop flows leading to physical congestion on WR-NR.	WR-NR/ ER-NR
			Margin Revised due to correction in LTA/MTOA figure.	NR-WR
2	01-04-2014	2	Margin revised due to grant of 150 MW LTA towards SR from NEW grid and grant of 208 MW LTA to TANGEDCO	ER-SR / S1-S2
3	04-04-2014	3	Margin revised due to grant of 69 MW LTA to Jindal Power Limited Tamnar	W3/ ER-SR
4	11-04-2014	4	Margin revised due to correction of LTA. 69 MW LTA Quantum inadvertently added in the last revision. Quantum inadvertently added in the last revision	ER-SR
5	01-05-2014	5	Margin revised due to incorporation of existing Power Allocation.	NR-WR
			Margin revised due to Commissioning of Sasan Unit-4.	WR-NR
			Margin revised due to incorporation of existing Solar Power Allocation to SR, ER, NER constituents between 6 hrs -18 hrs in LTA figures and allocation data available on RPCs RTA/REA.	NR-ER
			Margin revised considering the LTA/MTOA allocation available in RPCs RTA/REA.	ER-NR/ ER- W3
			Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA and Re-routing of existing MTOA granted by CTU.	W3-ER
			Margin revised due to incorporation of existing Solar Power Allocation to Karnataka between 6 hrs-18 hrs in LTA figures.	ER-SR
			Margin revised considering the LTA/MTOA allocation available in RPCs RTA/REA and due to incorporation of existing Solar Power Allocation to Assam.	ER-NER
			Revised due to Allocation of 150 MW TANGEDCO.	S1-S2
			Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA and existing MTOA granted by CTU.	W3 zone Injection
			Revised due to augmentation/ modifications in Punjab control area network.	Import of Punjab

ASSUMPTIONS IN BASECASE

Month : June '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	8807	8517	3164	3203
2	Haryana	6743	6353	3958	3958
3	Rajasthan	7803	7383	5144	5134
4	Delhi	5199	5053	1382	1382
5	Uttar Pradesh	12165	12581	6115	6128
6	Jammu & Kashmir	1954	1798	546	564
7	Uttarakhand	1656	1509	496	491
8	Himachal Pradesh	1503	1361	852	821
9	Chandigarh	294	225	0	0
10	ISGS/IPPs			19790	17328
	Total NR	46124	44780	41447	39009
II	EASTERN REGION				
1	West Bengal	7059	4711	5170	4021
2	Jharkhand	1108	808	590	590
3	Orissa	3640	2570	3181	2432
4	Bihar	2030	1500	70.5	70.5
5	Damodar Valley Corporation	2460	2030	3179	2989
6	Sikkim	86	40		
7	Bhutan	109	109	1235	1235
8	ISGS/IPPs	245	245	8845	8315
	Total ER	16737	12013	22270.5	19652.5
III	WESTERN REGION				
1	Chattisgarh	2787	2487	1833	1584
2	Madhya Pradesh	6200	4995	3890	2566
3	Maharashtra	17114	13154	11768	7999
4	Gujarat	11946	10080	9539	8469
5	Goa	262	380		
6	Daman and Diu	250	250		
7	Dadra and Nagar Haveli	604	590		
8	ISGS/IPPs	1240	1240	17104	16275
	Total WR	40403	33176	44134	36893

IV	SOUTHERN REGION				
1	Andhra Pradesh	10848	9446	6571	5881
2	Tamil Nadu	12152	10588	8026	7002
3	Karnataka	8397	7303	6100	4619
4	Kerala	3390	2595	1781	863
5	Pondy	329	278		
6	Goa	83	83		
7	ISGS/IPPs			11027	10260
	Total SR	35199	30293	33505	28625
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	120	84	0	0
2	Assam	1380	990	250	225
3	Manipur	125	88	0	0
4	Meghalaya	300	210	60	55
5	Mizoram	75	53	4	4
6	Nagaland	110	77	12	12
7	Tripura	230	130	110	110
8	ISGS/IPPs			1592	1262
	Total NER	2340	1632	2028	1668
	Total All India	140803	121894	143384	125848