

National Load Despatch Centre
Total Transfer Capability for June 2016

Issue Date: 22/6/2016

Issue Time: 1245 hrs

Revision No. 8

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 2016 to 30th June 2016	00-24	2500	500	2000	149	1851		
WR-NR*	1st June 2016 to 15th June 2016	00-24	5850	500	5350	6170	0		
	16th June 2016 to 30th June 2016	00-24	6700	500	6200	6170	30		
NR-ER*	1st June 2016 to 30th June 2016	00-06	2000	200	1800	293	1507		
		06-18'	2000		1800	358	1442		
		18-24	2000		1800	293	1507		
ER-NR*	1st June 2016 to 30th June 2016	00-24	3800	300	3500	2431	1069		
W3-ER ^s	1st June 2016 to 30th June 2016	00-24	No limit is being specified. No Re-routing is allowed via W3-ER-NR.						
ER-W3	1st June 2016 to 30th June 2016	00-24	No limit is being specified.						
WR-SR	1st June 2016 to 9th June 2016	00-24	4000	750	3250	3250	0		
	10th June 2016	00-08	4000	750	3250	3250	0		
		08-24	2200		1450		0		
	11th June 2016 to 19th June 2016	00-07	4000	750	3250	3250	0		
		07-24	3750		3000		3250	0	
	20th June 2016 to 21st June 2016	00-07	4000	750	3250	3250	0		
		07-24	3750		3000		3250	0	
	22nd June 2016	00-24	4000	750	3250	3250	0		
23rd June 2016	00-07	4000	750	3250	3250	0			
	07-24	3750		3000		3250	0	-250	Revised due to shutdown of 400kV Ramagundam-Chandrapur Ckt-2.
24th June 2016 to 30th June 2016	00-24	4000	750	3250	3250	0			
SR-WR *	1st June 2016 to 30th June 2016	00-24	No limit is being Specified.						
ER-SR	1st June 2016 to 2nd June 2016	00-06	2650	0	2650	2585	65		
		18-24					0		
		06-18'					2650		
	3rd June 2016 to 4th June 2016	00-05	2650	0	2650	2585	65		
		05-06'	2000		2000	2585	0		
		06-18'	2000		2000	2650	0		
		18'-24	2000		2000	2585	0		
5th June 2016 to 30th June 2016	00-06	2650	0	2650	2585	65			
	18-24					0			
06-18'	2650								
SR-ER *	1st June 2016 to 30th June 2016	00-24	No limit is being Specified.						
ER-NER	1st June 2016 to 22nd June 2016	00-17	1350	45	1305	210	1095		
		23-24			1115		905		
		17-23			1160				
	23rd June 2016	00-08	1350	45	1305	210	1095		
		23-24			915		705	-390	
		08-17'			960		1115	905	
		17-23			1160				
	24th June 2016 to 30th June 2016	00-17	1350	45	1305	210	1095		
23-24		1115			905				
17-23	1160								
NER-ER	1st June 2016 to 30th June 2016	00-17	1250	45	1205	0	1205		
		23-24			1295		1295		
		17-23			1340				

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W3 zone Injection	1st June 2016 to 30th June 2016	00-24				2			
Note: TTC/ATC of S1-S2 corridor, Import of Punjab and Import of DD & DNH 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) 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	1. (n-1) Contingency 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	n-1 contingency of one circuit of 400 kV Biharsharif- Lakhisarai leads to high loading on the other circuit
WR-SR & ER-SR	(n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2500 MW loading on the other circuit Under S/D of one ckt of 765kV Raichur-Sholapur, the constraint would be (n-1) of remaining 765kV Sholapur-raichur would lead to Low voltage at Kolhapur, Mapusa Low Voltage at Gazuwaka (East) Bus.
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 contingency 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	---

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 2016 to 15th June 2016	00-05	7800	800	7000	8601	0			
		05-08'	7800		7000		0			
		08-19'	7800		7000		0			
		19-24	7800		7000		0			
	16th June 2016 to 30th June 2016	00-05	8950	800	8150	8601	0			
		05-08'	8950		8150		0			
		08-19'	8950		8150		0			
		19-24	8950		8150		0			
NER	1st June 2016 to 22nd June 2016	00-17	1350	45	1305	210	1095			
		23-24			1160		905			
	23rd June 2016	00-08	1350	45	1305	210	1095	-390	Revised due to Shutdown of 400 kV Bongaigaon - Azara.	
		23-24			915		705			
		08-17'			960		1115			905
	24th June 2016 to 30th June 2016	00-17	1350	45	1305	210	1095			
		23-24			1160		905			
	WR									
SR	1st June 2016 to 2nd June 2016	00-06	6650	750	5900	5835	65			
		06-18'			6650	5900	5900			0
		18-24			6650	5900	5835			65
	3rd June 2016 to 4th June 2016	00-05	6000	750	5900	5835	65			
		05-06'			6000	5250	5835			0
		06-18'			6000	5250	5900			0
	5th June 2016 to 9th June 2016	18-24	6000		5250	5835	0			
		00-06	6650	750	5900	5835	65			
		06-18'			6650	5900	5900			0
	18-24	6650			5900	5835	65			
	10th June 2016	00-06	6650	750	5900	5835	65			
		06-08'			6650	5900	5900			0
		08-18'			4850	4100	5900			0
		18-24			4850	4100	5835			0
	11th June 2016 to 19th June 2016	00-06	6650	750	5900	5835	65			
		06-07'			6650	5900	5900			0
		07-18'			6400	5650	5900			0
	20th June 2016 to 21st June 2016	18-24	6400		5650	5835	0			
		00-06	6650	750	5900	5835	65			
		06-07'			6650	5900	5900			0
		07-18'			6400	5650	5900			0
	18-24	6400			5650	5835	0			
	22nd June 2016	00-06	6650	750	5900	5835	65			
		06-18'			6650	5900	5900			0
18-24		6650			5900	5835	65			

SR	23rd June 2016	00-06	6650	750	5900	5835	65	-250	Revised due to shutdown of 400kV Ramagundam-Chandrapur Ckt-2.
		06-07'	6650		5900	5900	0		
		07-18'	6400		5650	5900	0		
		18-24	6400		5650	5835	0		
	24th June 2016 to 30th June 2016	00-06	6650	750	5900	5835	65		
		06-18'	6650		5900	5900	0		
18-24		6650	5900		5835	65			

* 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 = A * B/(B+C)
Margin for ER-NR Applicants = A * C/(B+C)

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 2016 to 30th June 2016	00-06	4500	700	3800	442	3358		
		06-18'			3800	507	3293		
		18-24			3800	442	3358		
NER	1st June 2016 to 30th June 2016	00-17 23-24	1250	45	1205	0	1205		
		17-23			1295		1295		
WR									
SR *	1st June 2016 to 30th June 2016	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 one circuit of 400 kV Biharshariff- Lakhisarai leads to high loading on the other circuit 1. (n-1) Contingency 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 contingency 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	(n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2500 MW loading on the other circuit Under S/D of one ckt of 765kV Raichur-Sholapur, the constraint would be (n-1) of remaining 765kV Sholapur-raichur would lead to Low voltage at Kolhapur, Mapusa Low Voltage at Gazuwaka (East) Bus.

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Total Transfer Capability for June 2016**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	31-Mar-16	Whole Month	STOA Margin revised considering the grnat of of MTOA.	WR-NR
			STOA Margin revised considering the completion of ISGS Allocation towards SR.	NR-WR
2	5-Mar-16	Whole month	Revised considering the present high generation trend in Rajasthan state	WR-NR/import of NR
			STOA margin revised due to change in LTA/MTOA allocation	NR-WR / Export of NR
3	31-May-16	1/6/2016 to 15/6/2016	Revised due to forced outage of 765kV Phagi-Bhiwani S/C	WR-NR/import of NR
4	2-Jun-16	3/6/2016 to 4/6/2016	Revised due to shutdown of 400 kV Jeypore-Gajuwaka ckt 1 & ckt 2	ER-SR / Import of SR
5	9-Jun-16	10-06-16	Revised due to shutdown of 765kV Sholapur-Raichur Ckt-2.	WR-SR / Import of SR
6	10-Jun-16	11/6/2016 to 19/6/2016	Revised due to shutdown of 400kV Ramagundam-Chandrapur Ckt-2.	WR-SR / Import of SR
7	19-Jun-16	20/6/2016 to 21/6/2016	Revised due to shutdown of 400 kV Ramagundam-Chandrapur Ckt-2.	WR-SR / Import of SR
8	22-Jun-16	23-06-16	Revised due to shutdown of 400 kV Ramagundam-Chandrapur Ckt-2.	WR-SR / Import of SR
			Revised due to Shutdown of 400 kV Bongaigaon - Azara.	ER-NER

ASSUMPTIONS IN BASECASE					
				Month : June '16	
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	8037	9187	2694	2870
2	Haryana	7136	6607	2089	2090
3	Rajasthan	8262	7934	4898	4898
4	Delhi	4980	4853	938	938
5	Uttar Pradesh	12958	12026	6191	6330
6	Uttarakhand	1695	1469	976	843
7	Himachal Pradesh	1201	1299	879	913
8	Jammu & Kashmir	2209	1820	648	642
9	Chandigarh	291	259	0	0
10	ISGS/IPPs	0	0	20961	19557
	Total NR	46769	45453	40274	39080
II	EASTERN REGION				
1	Bihar	3085	2462	210	100
2	Jharkhand	1148	886	470	300
3	Damodar Valley Corporation	2769	2412	4082	3235
4	Orissa	3974	3053	3143	1978
5	West Bengal	7367	5327	5006	3600
6	Sikkim	99	64	0	0
7	Bhutan	215	215	1227	637
8	ISGS/IPPs	628	625	10953	10245
	Total ER	19285	15044	25090	20096
III	WESTERN REGION				
1	Maharashtra	19699	13672	14568	9815
2	Gujarat	12968	10139	10079	7008
3	Madhya Pradesh	7786	5193	3889	2717
4	Chattisgarh	3455	2596	2116	1220
5	Daman and Diu	313	247	0	0
6	Dadra and Nagar Haveli	740	660	0	0
7	Goa-WR	463	247	0	0
8	ISGS/IPPs	1078	1076	27268	23455
	Total WR	46502	33830	57919	44214

IV	SOUTHERN REGION				
1	Andhra Pradesh	6568	5901	5570	5024
2	Telangana	6982	6490	1686	1501
3	Karnataka	9040	7448	7353	5628
4	Tamil Nadu	15329	13542	8515	6715
5	Kerala	3503	2195	1590	657
6	Pondy	391	348	0	0
7	Goa-SR	89	89	0	0
8	ISGS/IPPs	0	0	13047	11948
	Total SR	41902	36013	37761	31472
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	122	89	0	0
2	Assam	1057	846	308	170
3	Manipur	126	80	0	0
4	Meghalaya	261	181	173	123
5	Mizoram	81	65	8	8
6	Nagaland	103	100	24	21
7	Tripura	256	158	90	90
8	ISGS/IPPs	0	0	1503	1283
	Total NER	2006	1519	2106	1695
	Total All India	156464	131859	163150	136557