

National Load Despatch Centre
Total Transfer Capability for June 2016

Issue Date: 26/6/2016

Issue Time: 1140 hrs

Revision No. 10

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		
00-07		4000	3250		3250	0			
23rd June 2016	00-07	4000	750	3250	3250	0			
	07-24	3750		3000	3250	0			
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				2650	0		
		06-18'				2650	0		
	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 23rd June 2016	00-06	2650	0	2650	2585	65		
		18-24				2650	0		
		06-18'				2650	0		
24th June 2016 to 30th June 2016	00-06	2650	0	2650	2585	65			
	0600-0830'	2650		2650	2650	0			
	0830-1800'	2450		2450	2650	0			
	18'-24	2450		2450	2585	0			
SR-ER *	1st June 2016 to 30th June 2016	00-24	No limit is being Specified.						

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ER-NER	1st June 2016 to 22nd June 2016	00-17	1350	45	1305	210	1095		
		23-24			1115		905		
		17-23			1160		905		
	23rd June 2016	00-08	1350	45	1305	210	1095		
		23-24			915		705		
		08-17'			1115		905		
	24th June 2016 to 26th June 2016	00-17	1350	45	1305	210	1095		
		23-24			1115		905		
	27th June 2016	00-08	1350	45	1305	210	1095		Revised due to Shutdown of 400 kV Bongaigaon - Byrnhahat.
		23-24 16-17			835		625	-470	
		08-16'			1115		905		
	28th June 2016 to 30th June 2016	00-17	1350	45	1305	210	1095		
23-24		1115			905				
NER-ER	1st June 2016 to 26th June 2016	00-17	1250	45	1205	0	1205		
		23-24			1295		1295		
		17-23			1340		1295		
	27th June 2016	00-08 16-17	1250	45	1205	0	1205		Revised due to Shutdown of 400 kV Bongaigaon - Byrnhahat.
		23-24			955		955	-250	
		08-16'			1295		1295		
	28th June 2016 to 30th June 2016	00-17	1250	45	1205	0	1205		
		23-24			1295		1295		
	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 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.

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.

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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) 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 Biharshariff- 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 23rd June 2016	00-05	8950	800	8150	8601	0					
		05-08'	8950		8150		0					
		08-19'	8950		8150		0					
		19-24	8950		8150		0					
	24th June 2016 to 30th June 2016	00-05	9600	800	8800	8601	199					
		05-08'	9600		8800		199					
		08-19'	9600		8800		199					
		19-24	9600		8800		199					
NER	1st June 2016 to 22nd June 2016	00-17	1350	45	1305	210	1095					
		23-24					1115			905		
	23rd June 2016	00-08	1350	45	1305	210	1095					
		23-24					915			705		
		08-17'					1160			1115	905	
	24th June 2016 to 26th June 2016	00-17	1350	45	1305	210	1095					
		23-24					1160			1115	905	
	27th June 2016	00-08	1350	45	1305	210	1095					
		23-24					880			835	625	-470
		16-17					1160			1115	905	
	28th June 2016 to 30th June 2016	00-17	1350	45	1305	210	1095					
		23-24					1160			1115	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	6650	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	6650	750	5250	5835	0					
		00-06			6650		5900			5835	65	
		06-18'			6650		5900			5900	0	
			18-24	6650		5900	5835	65				

SR	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	
		18-24	6400		5650	5835	0	
	20th June 2016 to 21st June 2016	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		5900	5835	65	
		06-18'	6650		5900	5900	0	
		18-24	6650		5900	5835	65	
	23rd June 2016	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	
	24th June 2016 to 30th June 2016	00-06	6650	750	5900	5835	65	
0600-0830'		6650	5900		5900	0		
0830-1800'		6450	5700		5900	0		
18-24		6450	5700		5835	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 = $A * B/(B+C)$
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	4500		3800	442	3358		
NER	1st June 2016 to 26th June 2016	00-17	1250	45	1205	0	1205		
		23-24			1295		1295		
		17-23	1340						
	27th June 2016	00-08	1250	45	1205	0	1205		Revised due to Shutdown of 400 kV Bongaigaon - Byrnihat.
		16-17			955		955		
		23-24	1000		1295		-250		
		08-16'	1340						
	28th June 2016 to 30th June 2016	00-17	1250	45	1205	0	1205		
		23-24			1295		1295		
17-23	1340								
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.

**National Load Despatch Centre
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
9	23-Jun-16	24/6/2016 to 30/6/2016	Revised due to shutdown of 400 kV Kolar AC Filter Bus-3	ER-SR / Import of SR
			Revised considering present Inter-Regional Flow Pattern.	WR-NR/ import of NR
10	26-Jun-16	27-06-16	Revised due to Shutdown of 400 kV Bongaigaon - Byrnihat.	ER-NER/ NER-ER

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