

National Load Despatch Centre
Total Transfer Capability for October 2016

Issue Date: 17/10/2016

Issue Time: 1430 hrs

Revision No. 13

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 Oct 2016 to 31st Oct 2016	00-24	2500	500	2000	55	1945		
WR-NR*	1st Oct 2016	00-24	7000	500	6500	6170	330		
	2nd Oct 2016	00-08	7000	500	6500	6170	330		
		08-24'	6500		6000		0		
	3rd Oct 2016	00-07	7000	500	6500	6170	330		
		07-24'	6600		6100		0		
	4th Oct 2016 to 5th Oct 2016	00-24	6600	500	6100	6170	0		
	6th Oct 2016	00-07	6600	500	6100	6170	0		
		07-24	6350		5850		6170	0	
	7th Oct 2016	00-24	6750	500	6250	6170	80		
	8th Oct 2016 to 15th Oct 2016	00-24	7000	500	6500	6170	330		
	16th Oct 2016	00-24	6750	500	6250	5920	80		
	17th Oct 2016 to 23rd Oct 2016	00-24	6750	500	6250	5920	80		
24th Oct 2016 to 31st Oct 2016	00-24	7000	500	6500	6170	330			
NR-ER*	1st Oct 2016 to 31st Oct 2016	00-06	2000	200	1800	93	1707		
		06-18'	2000		1800	158	1642		
		18-24	2000		1800	93	1707		
ER-NR*	1st Oct 2016 to 31st Oct 2016	00-24	4200	300	3900	2531	1369		
W3-ER^s	1st Oct 2016 to 31st Oct 2016	00-24	No limit is being specified.						
ER-W3	1st Oct 2016 to 31st Oct 2016	00-24	No limit is being specified.						
WR-SR	1st Oct 2016 to 17th Oct 2016	00-24	4000	750	3250	3250	0		
	18th Oct 2016	00-09	4000	750	3250	3250	0		Revised due to shutdown of 765 kV Raichur-Solapur ckt 2
		'09-24	2000		1250		0	-2000	
19th Oct 2016 to 31st Oct 2016	00-24	4000	750	3250	3250	0			
SR-WR *	1st Oct 2016 to 31st Oct 2016	00-24	No limit is being Specified.						
ER-SR	1st Oct 2016 to 2nd Oct 2016	00-06	2650	0	2650	2142	508		
		06-18'				2207	443		
		18-24				2142	508		
	3rd Oct 2016	00-06	2650	0	2650	2142	508		
		06-07'	2650		2650	2207	443		
		07-18'	2350		2350	2207	143		
		18-24	2350		2350	2142	208		
	4th Oct 2016 to 5th Oct 2016	00-06	2650	0	2650	2142	508		
		06-18'				2207	443		
		18-24				2142	508		
	6th Oct 2016	00-06	2650	0	2650	2585	65		
		06-18'				2650	0		
		18-24				2585	65		
	7th Oct 2016 to 8th Oct 2016	00-06	2650	0	2650	2142	508		
		06-18'				2207	443		
		18-24				2142	508		
	9th Oct 2016 to 10th Oct 2016	00-06	2650	0	2650	2585	65		
		06-18'				2650	0		
		18-24				2585	65		

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ER-SR	11th Oct 2016 to 14th Oct 2016	00-06	2650	0	2650	2585	65			
		06-18'				2650	0			
		18-24				2585	65			
	15th Oct 2016	00-06	2650	0	2650	2585	65			
		06-09'	2650			2650	0			
		09-18'	2350			2350	2650	0		
		18-24	2350			2350	2585	0		
	ER-SR	16th Oct 2016	00-06	2650	0	2650	2585	65		
			06-18'				2650	0		
			18-24				2585	65		
		17th Oct 2016	00-06	2650	0	2650	2585	65		
			06-0830'	2650			2650	0		
0830-18'			2350	2350			2650	0		
18-24			2350	2350			2585	0		
18th Oct 2016 to 31st Oct 2016		00-06	2650	0	2650	2585	65			
		06-18'				2650	0			
	18-24	2585				65				
SR-ER *	1st Oct 2016 to 31st Oct 2016	00-24	No limit is being Specified.							
ER-NER	1st Oct 2016 to 31st Oct 2016	00-17	1160	45	1115	210	905			
		17-23	1040		995		785			
		23-24	1160		1115		905			
NER-ER	1st Oct 2016 to 31st Oct 2016	00-17	1250	45	1205	0	1205			
		17-23	1420		1375		1375			
		23-24	1250		1205		1205			
W3 zone Injection	1st Oct 2016 to 31st Oct 2016	00-24	No limit is being specified (in case of skewed inter-regional flows or any constraints appearing in the system, W3 zone export would be revised accordingly)							

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).

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) KWPC, n)Vandana Vidyut o)RKM, p)GMR Raikheda, q)Ind Barath and any other regional entity generator in Chhattisgarh

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 :

- The TTC value will be revised to normal values after restoration of shutdown.
- The TTC value will be revised to normal values if the shutdown is not being availed in real time.

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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
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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 Kahalgaon-Banka 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 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	---

SR	1st Oct 2016 to 2nd Oct 2016	00-06	6650	750	5900	5392	508		
		06-18'	6650		5900	5457	443		
		18-24	6650		5900	5392	508		
	3rd Oct 2016	00-06	6650	750	5900	5392	508		
		06-07'	6650		5900	5457	443		
		07-18'	6350		5600	5457	143		
		18-24	6350		5600	5392	208		
	4th Oct 2016 to 5th Oct 2016	00-06	6650	750	5900	5392	508		
		06-18'	6650		5900	5457	443		
		18-24	6650		5900	5392	508		
	6th Oct 2016	00-06	6650	750	5900	5835	65		
		06-18'	6650		5900	5900	0		
		18-24	6650		5900	5835	65		
	7th Oct 2016 to 8th Oct 2016	00-06	6650	750	5900	5392	508		
		06-18'	6650		5900	5457	443		
		18-24	6650		5900	5392	508		
	9th Oct 2016 to 10th Oct 2016	00-06	6650	750	5900	5392	508		
		06-18'	6650		5900	5457	443		
		18-24	6650		5900	5392	508		
	11th Oct 2016 to 14th Oct 2016	00-06	6650	750	5900	5835	65		
		06-18'	6650		5900	5900	0		
		18-24	6650		5900	5835	65		
	15th Oct 2016	00-06	6650	750	5900	5835	65		
		06-09'	6650		5900	5900	0		
		09-18'	6350		5600	5900	0		
		18-24	6350		5600	5835	0		
	16th Oct 2016	00-06	6650	750	5900	5835	65		
06-18'		6650	5900		5900	0			
18-24		6650	5900		5835	65			
17th Oct 2016	00-06	6650	750	5900	5835	65			
	06-0830'	6650		5900	5900	0			
	0830-18'	6350		5600	5900	0			
	18-24	6350		5600	5835	0			
18th Oct 2016	00-06	6650	750	5900	5835	65		Revised due to shutdown of 765 kV Raichur-Solapur ckt 2	
	06-09'	6650		5900	5900	0			
	09-18'	4650		3900	5900	0	-2000		
	18-24	4650		3900	5835	0			
19th Oct 2016 to 31st Oct 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 Oct 2016 to 31st Oct 2016	00-06	4500	700	3800	148	3652		
		06-18'			3800	213	3587		
		18-24	4500		3800	148	3652		
NER	1st Oct 2016 to 31st Oct 2016	00-17	1250	45	1205	0	1205		
		23-24	1420		1375		1375		
		17-23							
WR									
SR *	1st Oct 2016 to 31st Oct 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 Kahalgaon-Banka 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 Low Voltage at Gazuwaka (East) Bus.

National Load Despatch Centre
Total Transfer Capability for October 2016

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	3/8/2016	Whole month	Revised due to commissioning of 400 kV Ranchi-Chandawa-Gaya D/C, 765kV Varanasi-Kanpur D/C, 765kV Kanpur-Jhatikara S/C , 400kV Kanpur (GIS)-Kanpur D/C and considering total gen at Kawai, Chhabra, Kalisindh as 2500 MW and considering the present inter regional flow pattern	WR-NR/ Simultaneous import of NR
2	20/9/2016	Whole month	Revised considering the current rating of 400 kV isolators at Dhanaunda as 2000 A and considering the present inter regional flow pattern	WR-NR/ Simultaneous import of NR
3	30/9/2016	1/10/2016	Revised due to commissioning of 765kV Phagi-Bhiwani Ckt-2.	WR-NR/ Simultaneous import of NR
		2/10/2016	Revised due to commissioning of 765kV Phagi-Bhiwani Ckt-2 and shutdown of 765kV Gwalior-Agra-2 & 765kV Agra-Greater Noida-Meerut.	
		3/10/2016 to 31/10/2016	Revised due to commissioning of 765kV Phagi-Bhiwani Ckt-2.	
4	30/9/2016	1/10/2016 to 5/10/2016	STOA Margin revised due to Talcher Stage-2 Unit-6 Outage	ER-SR/import capability of SR
5	2/10/2016	3/10/2016 to 6/10/2016	Revised due to shutdown of 765kV Phagi-Bhiwani Ckt-2.	WR-NR/ Simultaneous import of NR
		3/10/2016	Revised due to shutdown of 400kV Rengali-Indrawati S/C.	ER-SR/import capability of SR
6	5/10/2016	6/10/2016 to 7/10/2016	Revised due to shutdown of HVDC Rihand-Dadri Pole-1 and Pole-2	WR-NR/ Simultaneous import of NR
7	6/10/2016	7/10/2016 to 10/10/2016	STOA Margin revised considering the Talcher unit-6 outage extension.	ER-SR/import capability of SR
8	8/10/2016	9/10/2016 to 10/10/2016	STOA Margin revised considering the synchronization of Talcher unit-6.	ER-SR/ Import capability of SR
9	14/10/2016	15/10/2016	Revised due to Shut down of 400kV Rengali- Indravati S/C.	ER-SR/ Import capability of SR
10	15/10/2016	16/10/2016	Revised due to outage of Vindhyachal pole 2	WR-NR/ Simultaneous import of NR
11	16/10/2016	17/10/2016	Revised due to the shut down of 400kV Jeypore-Bolangir S/C.	ER-SR/ Import capability of SR
12	16/10/2016	17/10/2016	Revised due to outage of Vindhyachal pole 2	WR-NR/ Simultaneous import of NR
13	17/10/2016	18/10/2016	Revised due to shutdown of 765 kV Raichur-Solapur ckt 2	WR-SR / Import of SR

ASSUMPTIONS IN BASECASE					
				Month : October '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	7766	6417	3969	3956
2	Haryana	7422	4463	2801	2801
3	Rajasthan	9095	9429	6037	5967
4	Delhi	4292	3146	772	772
5	Uttar Pradesh	13589	12991	7049	6868
6	Uttarakhand	1625	1401	589	602
7	Himachal Pradesh	1231	946	472	451
8	Jammu & Kashmir	2145	1599	584	575
9	Chandigarh	228	144	0	0
10	ISGS/IPPs	28	29	18919	11634
	Total NR	47421	40565	41192	33626
II	EASTERN REGION				
1	Bihar	3522	2856	200	200
2	Jharkhand	1098	886	400	350
3	Damodar Valley Corporation	2442	2166	3400	3199
4	Orissa	3717	2953	2929	1960
5	West Bengal	7815	6401	4952	3940
6	Sikkim	98	49	0	0
7	Bhutan	215	215	1484	1302
8	ISGS/IPPs	569	581	9822	9141
	Total ER	19476	16106	23187	20092
III	WESTERN REGION				
1	Maharashtra	21458	15798	14993	9184
2	Gujarat	14476	11561	12229	9172
3	Madhya Pradesh	9964	8177	6187	4363
4	Chattisgarh	4093	2962	3236	2276
5	Daman and Diu	317	266	0	0
6	Dadra and Nagar Haveli	687	547	0	0
7	Goa-WR	493	314	0	0
8	ISGS/IPPs	2911	2930	30214	29222
	Total WR	54398	42554	66858	54217

IV	SOUTHERN REGION				
1	Andhra Pradesh	7547	6184	6287	5429
2	Telangana	8313	7248	3291	2469
3	Karnataka	8206	7674	6511	4550
4	Tamil Nadu	13810	11812	6465	6064
5	Kerala	3801	2320	1647	648
6	Pondy	391	282	0	0
7	Goa-SR	89	89	0	0
8	ISGS/IPPs	0	0	13978	11953
	Total SR	42157	35609	38179	31114
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	130	86	0	0
2	Assam	1211	975	275	215
3	Manipur	163	76	0	0
4	Meghalaya	296	225	244	166
5	Mizoram	87	64	8	0
6	Nagaland	119	101	16	6
7	Tripura	240	151	90	90
8	ISGS/IPPs	98	59	1825	1488
	Total NER	2344	1737	2458	1965
	Total All India	166040	136815	173388	142316