

**National Load Despatch Centre
Total Transfer Capability for October 2016**

Issue Date: 02/10/2016

Issue Time: 1600 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 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	-400	Revised due to shutdown of 765kV Phagi-Bhiwani Ckt-2.
4th Oct 2016 to 6th Oct 2016	00-24	6600	500	6100	6170	0	-400		
7th 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 ^{\$}	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 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	-300	Revised due to shutdown of 400kV Rengali-Indrawati S/C.
	18-24	2350	2350	2142	208	-300			
		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 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).

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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 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 :

- 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 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	---

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 Oct 2016	00-18	11100	800	10300	8701	1599		Revised due to shutdown of 765kV Phagi-Bhiwani Ckt-2.
		18-23'	10300		9500		799		
		23-24	11100		10300		1599		
	2nd Oct 2016	00-08	11100	800	10300	8701	1599		
		08-18'	10300		9500		799		
		18-23'	9600		8800		99		
		23-24	10300		9500		799		
	3rd Oct 2016	00-07	11100	800	10300	8701	1599	-600	
		07-18'	10500		9700		999		
		18-23'	9700		8900		199		
		23-24	10500		9700		999		
	4th Oct 2016 to 6th Oct 2016	00-18	10500	800	9700	8701	999	-600	
		18-23'	9700		8900		199		
		23-24	10500		9700		999		
	7th Oct 2016 to 31st Oct 2016	00-18	11100	800	10300	8701	1599		
		18-23'	10300		9500		799		
		23-24	11100		10300		1599		
	NER	1st Oct 2016 to 31st Oct 2016	00-17	1160	45	1115	210	905	
23-24			995			785			
17-23			1040						
WR									
SR	1st Oct 2016 to 2nd Oct 2016	00-06	6650	750	5900	5392	508	Revised due to shutdown of 400kV Rengali-Indrawati S/C.	
		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 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		
		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.

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Total Transfer Capability for October 2016**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	08-03-16	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	10-01-16	Revised due to commissioning of 765kV Phagi-Bhiwani Ckt-2.	WR-NR/ Simultaneous import of NR
		10-02-16	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	30-09-16	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	02-10-16	3/10/2016 to 6/10/2016	Revised due to shutdown of 765kV Phagi-Bhiwani Ckt-2.	WR-NR/ Simultaneous import of NR
		03-10-16	Revised due to shutdown of 400kV Rengali-Indrawati S/C.	ER-SR/import capability 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