

National Load Despatch Centre
Total Transfer Capability for December 2016

Issue Date: 05/12/2016

Issue Time: 1430 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 Dec 2016 to 31st Dec 2016	00-06	2500	500	2000	55	1945			
		06-18'				65	1935			
		18-24				55	1945			
WR-NR*	1st Dec 2016	00-07'	6000	500	5500	6850	0			
		07-24	5000		4500		0			
	2nd Dec 2016 to 4th Dec 2016	00-24	5000	500	4500	6850	0			
		5th Dec 2016	00-24	6200	500	5700	6850	0		
	6th Dec 2016 to 12th Dec 2016	00-07	6700	500	6200	6850	0	-500		Revised considering fog during 0000-0007 hrs and shutdown of 765 kV Agra - Gwalior ckt 1 from 0700 hrs
		07-24	6200		5700		0	-1000		
	13th Dec 2016 to 31st Dec 2016	00-24	7200	500	6700	6850	0			
NR-ER*	1st Dec 2016 to 31st Dec 2016	00-06	2000	200	1800	193	1607			
		06-18'	2000		1800	303	1497			
		18-24	2000		1800	193	1607			
ER-NR*	1st Dec 2016 to 31st Dec 2016	00-24	4200	300	3900	2931	969			
W3-ER	1st Dec 2016 to 31st Dec 2016	00-24	No limit is being specified.							
ER-W3	1st Dec 2016 to 31st Dec 2016	00-24	No limit is being specified.							
WR-SR	1st Dec 2016 to 2nd Dec 2016	00-24	4000	750	3250	3250	0			
	3rd Dec 2016 to 10th Dec 2016	00-24	3500	750	2750	3250	0			
	11th Dec 2016 to 31st Dec 2016	00-24	4000	750	3250	3250	0			
SR-WR *	1st Dec 2016 to 31st Dec 2016	00-24	No limit is being Specified.							
ER-SR	1st Dec 2016 to 31st Dec 2016	00-06	2650	0	2650	2585	65			
		18-24				2650	0			
SR-ER *	1st Dec 2016 to 31st Dec 2016	00-24	No limit is being Specified.							
ER-NER	1st Dec 2016 to 31st Dec 2016	00-17	1320	45	1275	225	1050			
		23-24	1150		1105		880			
NER-ER	1st Dec 2016 to 31st Dec 2016	00-17	1100	45	1055	0	1055			
		23-24	1260		1215		1215			
W3 zone Injection	1st Dec 2016 to 31st Dec 2016	00-24	No limit is being specified (In case of 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).

National Load Despatch Centre
Total Transfer Capability for December 2016

Issue Date: 05/12/2016

Issue Time: 1430 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
----------	------	-------------------	---------------------------------	--------------------	-------------------------------------	--	--	-------------------------------------	----------

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 Vidut 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) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon S/c
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	a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Balipara-Sonabil line(200 MW)
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 Dec 2016	00-07	8600	800	7800	9781	0		
		07-18'	7200		6400		0		
		18-23'	6700		5900		0		
		23-24	7200		6400		0		
	2nd Dec 2016 to 4th Dec 2016	00-18	7200	800	6400	9781	0		
		18-23'	6700		5900		0		
		23-24	7200		6400		0		
	5th Dec 2016	00-18	8900	800	8100	9781	0		
		18-23'	8300		7500		0		
		23-24	8900		8100		0		
	6th Dec 2016 to 12th Dec 2016	00-07	9600	800	8800	9781	0	-700	Revised considering fog during 0000-0007 hrs and shutdown of 765 kV Agra - Gwalior ckt 1 from 0700 hrs
		07-18	8850		8050		0	-1450	
		18-23'	8250		7450		0	-1350	
		23-24	8850		8050		0	-1450	
	13th Dec 2016 to 31st Dec 2016	00-18	10300	800	9500	9781	0		
18-23'		9600	8800		0				
23-24		10300	9500		0				
NER	1st Dec 2016 to 31st Dec 2016	00-17	1320	45	1275	225	1065		
		23-24			1105		895		
		17-23			1150				
WR									
SR	1st Dec 2016 to 2nd Dec 2016	00-06	6650	750	5900	5835	65		
		06-18'			6650	5900	5900	0	
		18-24			6650	5900	5835	65	
	3rd Dec 2016 to 10th Dec 2016	00-06	6150	750	5400	5835	0		
		06-18'			6150	5400	5900	0	
		18-24			6150	5400	5835	0	
	11th Dec 2016 to 31st Dec 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 Dec 2016 to 31st Dec 2016	00-06	4500	700	3800	148	3652		
		06-18'			3800	213	3587		
		18-24	4500		3800	148	3652		
NER	1st Dec 2016 to 31st Dec 2016	00-17	1100	45	1055	0	1055		
		23-24	1260		1215		1215		
		17-23							
WR									
SR *	1st Dec 2016 to 31st Dec 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. 3.(n-1) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon 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	a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Balipara-Sonabil line(200 MW)
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA
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 December 2016**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	29/11/2016	01/12/2016 to 04/12/2016	Revised due to shutdown of HVDC Mundra - Mohindergarh Pole-1, Commissioning of 400kV RAPC-Shujalpur D/C & Operationalization of LTA/MTOA.	WR-NR/ Import of NR
		05/12/2016 to 31/12/2016	Revised due to Commissioning of 400kV RAPC-Shujalpur D/C & Operationalization of LTA/MTOA.	
2	30/11/2016	01/12/2016 to 04/12/2016	Revised due to dense fog condition and trippings occurred in the past few days due to fog.	WR-NR/ Import of NR
3	2/12/2016	03/12/2016 to 10/12/2016	Revised due to outage of HVDC Bhadrawati Block-I.	WR-SR/ Import of SR
4	4/12/2016	5/12/2016	Revised due to dense fog conditions prevailing in NR and line trippings occurred in the past few days due to fog.	WR-NR/ Import of NR
5	5/12/2016	6/12/2016 to 12/12/2016	Revised considering fog during 0000-0007 hrs and shutdown of 765 kV Agra - Gwalior ckt 1 from 0700 hrs	WR-NR/ Import of NR

ASSUMPTIONS IN BASECASE					
				Month: December '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	5866	3850	2079	2141
2	Haryana	6497	3357	2061	2061
3	Rajasthan	9758	10060	5720	5774
4	Delhi	3735	1797	493	493
5	Uttar Pradesh	12555	12314	6338	6302
6	Uttarakhand	1783	1835	546	328
7	Himachal Pradesh	1380	1361	246	111
8	Jammu & Kashmir	2254	2352	463	431
9	Chandigarh	212	98	0	0
10	ISGS/IPPs	28	29	19403	11986
	Total NR	44068	37053	37348	29626
II	EASTERN REGION				
1	Bihar	3392	2543	200	131
2	Jharkhand	1098	814	400	400
3	Damodar Valley Corporation	2400	2136	3121	2971
4	Orissa	3753	2677	2759	1699
5	West Bengal	6741	5697	5110	3876
6	Sikkim	100	51	0	0
7	Bhutan	245	245	477	115
8	ISGS/IPPs	567	572	11276	10138
	Total ER	18266	14706	23298	19316
III	WESTERN REGION				
1	Maharashtra	20119	12604	14942	9531
2	Gujarat	12390	9961	9312	7051
3	Madhya Pradesh	11481	7945	6974	5088
4	Chattisgarh	3842	2563	2830	1919
5	Daman and Diu	308	252	0	0
6	Dadra and Nagar Haveli	706	656	0	0
7	Goa-WR	500	240	0	0
8	ISGS/IPPs	3099	3142	30985	26469
	Total WR	52445	37363	65042	50058

IV	SOUTHERN REGION				
1	Andhra Pradesh	7562	5829	6378	5692
2	Telangana	7946	6579	2953	2749
3	Karnataka	9122	9050	7140	5214
4	Tamil Nadu	12600	10108	5209	3920
5	Kerala	3891	2888	1609	629
6	Pondy	391	337	0	0
7	Goa-SR	89	89	0	0
8	ISGS/IPPs	0	0	14187	12153
	Total SR	41601	34880	37476	30357
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	113	54	0	0
2	Assam	1048	789	250	160
3	Manipur	129	84	0	0
4	Meghalaya	326	226	162	112
5	Mizoram	84	59	8	8
6	Nagaland	93	77	8	6
7	Tripura	178	127	81	80
8	ISGS/IPPs	80	50	1507	1083
	Total NER	2051	1467	2016	1449
	Total All India	158676	125714	165657	130921