

**National Load Despatch Centre  
Total Transfer Capability for February 2017**

Issue Date: 7/2/2017

Issue Time: 1250 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 Feb 2017 to 28th Feb 2017	00-06	2500	500	2000	55	1945			
		06-18				65	1935			
		18-24				55	1945			
WR-NR*	1st Feb 2017 to 2nd Feb 2017	00-24	6950	500	6450	6850	0			
	3rd Feb 2017 to 6th Feb 2017	00-24	6450	500	5950	6850	0			
	7th Feb 2017 to 28th Feb 2017	00-24	6950	500	6450	6850	0			
NR-ER*	1st Feb 2017 to 28th Feb 2017	00-06	2000	200	1800	193	1607			
		06-18	2000		1800	303	1497			
		18-24	2000		1800	193	1607			
ER-NR*	1st Feb 2017 to 28th Feb 2017	00-24	4000	300	3700	2931	769			
W3-ER	1st Feb 2017 to 28th Feb 2017	00-24	No limit is being specified.							
ER-W3	1st Feb 2017 to 28th Feb 2017	00-24	No limit is being specified.							
WR-SR	1st Feb 2017 to 2nd Feb 2017	00-05	4400	750	3650	3384	266			
		05-22	4000		3250		0			
		22-24	4400		3650		266			
	3rd Feb 2017	00-05	4400	750	3650	3384	266			
		05-08	4000		3250		0			
		08-22	3750		3000		0			
		22-24	4150		3400		16			
	4th Feb 2017	00-05	4400	750	3650	3384	266			
		05-22	4000		3250		0			
		22-24	4400		3650		266			
	5th Feb 2017	00-05	4400	750	3650	3384	266			
		05-08	4000		3250		0			
		08-22	3750		3000		0			
		22-24	4150		3400		16			
	6th Feb 2017 to 28th Feb 2017	00-05	4400	750	3650	3384	266			
		05-22	4000		3250		0			
		22-24	4400		3650		266			
	SR-WR *	1st Feb 2017 to 28th Feb 2017	00-24	No limit is being Specified.						
	ER-SR	1st Feb 2017 to 28th Feb 2017	00-06	2650	0	2650	2565	85		
			06-18				2650	0		
			18-24				2565	85		
	SR-ER *	1st Feb 2017 to 28th Feb 2017	00-24	No limit is being Specified.						

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ER-NER	1st Feb 2017 to 7th Feb 2017	00-17	1150	45	1105	225	895		Revised due to shutdown of 400 kV Bongaigaon-Alipurduar-1 & 2.	
		17-23	1050		1005		795			
		23-24	1150		1105		895			
	8th Feb 2017	00-07	1150	45	1105	225	895			
		07-17	980		935		-170			
		17-23	1050		1005		795			
		23-24	1150		1105		895			
	9th Feb 2017 to 28th Feb 2017	00-17	1150	45	1105	225	895			
		17-23	1050		1005		795			
		23-24	1150		1105		895			
	NER-ER	1st Feb 2017 to 7th Feb 2017	00-17	1130	45	1085	0	1085		
			17-23	1180		1135		910		
23-24			1130	1085		1085				
8th Feb 2017		00-07	1130	45	1085	0	1085			
		07-17	1000		955		-180			
		17-23	1180		1135		1135			
		23-24	1130		1085		1085			
9th Feb 2017 to 28th Feb 2017		00-17	1130	45	1085	0	1085			
		17-23	1180		1135		1135			
		23-24	1130		1085		1085			
<b>W3 zone Injection</b>		1st Feb 2017 to 28th Feb 2017	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&S3) corridor, Import of S3(Kerala), 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 and Puducherry; S3 comprises Kerala

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) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon S/c
WR-SR & ER-SR	<b>00-05 hrs &amp; 22-24 hrs:</b> (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2750 MW loading on the other circuit. <b>05-22 hrs:</b> (n-1) contingency of one circuit of 765 kV Aurangabad - Sholapur will lead to 2750 MW loading on the other circuit and 10kV voltage dip at Sholapur (PG) 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
SR	1st Feb 2017 to 2nd Feb 2017	00-05	7050	750	6300	5949	351		
		05-06	6650		5900	5949	0		
		06-18	6650		5900	6034	0		
		18-22	6650		5900	5949	0		
		22-24	7050		6300	5949	351		
	3rd Feb 2017	00-05	7050	750	6300	5949	351		
		05-06	6650		5900	5949	0		
		06-08	6650		5900	6034	0		
		08-18	6400		5650	6034	0		
		18-22	6400		5650	5949	0		
		22-24	6800		6050	5949	101		
	4th Feb 2017	00-05	7050	750	6300	5949	351		
		05-06	6650		5900	5949	0		
		06-18	6650		5900	6034	0		
		18-22	6650		5900	5949	0		
		22-24	7050		6300	5949	351		
	5th Feb 2017	00-05	7050	750	6300	5949	351		
		05-06	6650		5900	5949	0		
		06-08	6650		5900	6034	0		
		08-18	6400		5650	6034	0		
18-22		6400	5650		5949	0			
22-24		6800	6050		5949	101			
6th Feb 2017 to 28th Feb 2017	00-05	7050	750	6300	5949	351			
	05-06	6650		5900	5949	0			
	06-18	6650		5900	6034	0			
	18-22	6650		5900	5949	0			
	22-24	7050		6300	5949	351			

\* 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 Feb 2017 to 28th Feb 2017	00-06	4500	700	3800	248	3552		
		06-18'			3800	368	3432		
		18-24	4500		3800	248	3552		
NER	1st Feb 2017 to 7th Feb 2017	00-17	1130	45	1085	0	1085		
		17-23	1180		1135		1135		
		23-24	1130		1085		1085		
	8th Feb 2017	00-07	1130	45	1085	0	1085		Revised due to shutdown of 400 kV Bongaigaon-Alipurduar-1 & 2.
		07-17	1000		955		955	-180	
		17-23	1180		1135		1135		
		23-24	1130		1085		1085		
	9th Feb 2017 to 28th Feb 2017	00-17	1130	45	1085	0	1085		
		17-23	1180		1135		887		
		23-24	1130		1085		1085		
	WR								
	SR *	1st Feb 2017 to 28th Feb 2017	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) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon S/c. 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	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 ICT at Misa.
SR	Import	<b>00-05 hrs &amp; 22-24 hrs:</b> (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2750 MW loading on the other circuit. <b>05-22 hrs:</b> (n-1) contingency of one circuit of 765 kV Aurangabad - Sholapur will lead to 2750 MW loading on the other circuit and 10kV voltage dip at Sholapur (PG)
		Low Voltage at Gazuwaka (East) Bus.

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Total Transfer Capability for February 2017**

<b>Revision No</b>	<b>Date of Revision</b>	<b>Period of Revision</b>	<b>Reason for Revision</b>	<b>Corridor Affected</b>
1	24/1/2016	Whole Month	Revised considering the present inter regional flow pattern of WR-NR and ER-NR. Changes in LTA and MTOA and high generation in Rihand-Singrauli-Anpara complex factored.	WR-NR/ Import of NR
			Revised considering present Maharashtra Demand/Generation and Voltage profile at Sholapur (PG), Parli(PG) etc. during night hours. STOA margin revised considering changes in LTA and MTOA.	WR-SR/ Import of SR
			STOA margin revised considering changes in LTA and MTOA	ER-NER/NER import/NR export/
2	2/2/2017	3/2/2017 to 6/2/2017	Revised due to shut down of 400 kV Anpara -Sarnath ckt 2 and 400 kV Anpara-Mau	WR-NR/ Import of NR
		3/2/2017	Revised due to shutdown of 400 kV Bhadrawati - Ramagundam ckt 1	WR-SR/ Import of SR
3	3/2/2017	5/2/2017	Revised due to shutdown of 400 kV Bhadrawati - Ramagundam ckt 2	WR-SR/ Import of SR
4	4/2/2017	5/2/2017 to 28/2/017	Revised considering change in inter regional flow pattern	Import of NR
5	7/2/2017	8/2/2017	Revised due to shutdown of 400 kV Bongaigaon-Alipurduar-1 & 2.	ER-NER/ NER- ER

ASSUMPTIONS IN BASECASE					
				Month : February'17	
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	5746	4065	1957	1809
2	Haryana	6639	3242	2061	2061
3	Rajasthan	9987	10117	5975	5958
4	Delhi	3870	1710	551	551
5	Uttar Pradesh	12490	12623	6574	6557
6	Uttarakhand	1828	1263	851	568
7	Himachal Pradesh	1422	912	331	117
8	Jammu & Kashmir	2151	2157	370	316
9	Chandigarh	230	103	0	0
10	ISGS/IPPs	28	28	19457	11890
	Total NR	44391	36220	38126	29826
II	EASTERN REGION				
1	Bihar	3400	2500	200	131
2	Jharkhand	1250	950	400	400
3	Damodar Valley Corporation	2600	2200	3121	2971
4	Orissa	3988	2894	2759	1699
5	West Bengal	6500	5600	4684	3876
6	Sikkim	80	51	0	0
7	Bhutan	245	245	230	0
8	ISGS/IPPs	568	574	11432	10302
	Total ER	18602	14984	22827	19379
III	WESTERN REGION				
1	Maharashtra	19293	12770	14529	9166
2	Gujarat	12390	10098	9312	7542
3	Madhya Pradesh	10750	6256	6974	4414
4	Chattisgarh	3901	2545	2830	1869
5	Daman and Diu	316	223	0	0
6	Dadra and Nagar Haveli	709	634	0	0
7	Goa-WR	500	242	0	0
8	ISGS/IPPs	3099	3034	30497	24532
	Total WR	50958	35801	64142	47523

IV	SOUTHERN REGION				
1	Andhra Pradesh	7623	5809	6925	5986
2	Telangana	7581	6600	2994	2593
3	Karnataka	9672	8561	6816	4843
4	Tamil Nadu	13800	11286	6452	4810
5	Kerala	3841	2893	1545	604
6	Pondy	395	293	0	0
7	Goa-SR	89	89	0	0
8	ISGS/IPPs	0	0	14187	12153
	Total SR	43001	35531	38919	30989
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	87	45	0	0
2	Assam	939	686	240	140
3	Manipur	113	73	0	0
4	Meghalaya	258	158	117	62
5	Mizoram	73	51	8	8
6	Nagaland	80	68	8	6
7	Tripura	193	111	80	80
8	ISGS/IPPs	60	50	1294	937
	Total NER	1803	1242	1747	1232
	Total All India	159000	124023	165990	128950