

National Load Despatch Centre
Total Transfer Capability for February 2017

Issue Date: 3/2/2017

Issue Time: 1700 hrs

Revision No. 3

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		Revised due to shutdown of 400 kV Bhadrawati - Ramagundam ckt 2
		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.						
ER-NER	1st 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 28th Feb 2017	00-17	1130	45	1085	0	1085		
		17-23	1180		1135		1135		
		23-24	1130		1085		1085		

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W3 zone Injection	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	00-05 hrs & 22-24 hrs: (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2750 MW loading on the other circuit. 05-22 hrs: (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
ER									
NR	1st Feb 2017 to 2nd Feb 2017	00-05	9950	800	9150	9781	0		
		05-08	9300		8500		0		
		08-18	9950		9150		0		
		18-23	8500		7700		0		
		23-24	9950		9150		0		
	3rd Feb 2017 to 6th Feb 2017	00-05	9214	800	8414	9781	0		
		05-08	8600		7800		0		
		08-18	9214		8414		0		
		18-23	7866		7066		0		
		23-24	9214		8414		0		
	7th Feb 2017 to 28th Feb 2017	00-05	9950	800	9150	9781	0		
		05-08	9300		8500		0		
		08-18	9950		9150		0		
		18-23	8500		7700		0		
		23-24	9950		9150		0		
NER	1st Feb 2017 to 28th Feb 2017	00-17	1150	45	1105	225	895		
		17-23	1050		1005		795		
		23-24	1150		1105		895		
WR									
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			

Revised due to shutdown of 400 kV Bhadrawati - Ramagundam ckt 2

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* 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			3800	248	3552		
NER	1st Feb 2017 to 28th Feb 2017	00-17	1100	45	1055	0	1055		
		17-23			1055		1055		
		23-24			1055		1055		
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	00-05 hrs & 22-24 hrs: (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2750 MW loading on the other circuit. 05-22 hrs: (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**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
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

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