

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

Issue Date: 19th July 2017

Issue Time: 1200 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 July 2017 to 31st July 2017	00-06	2500	500	2000	55	1945			
		06-18				65	1935			
		18-24				55	1945			
WR-NR*	1st July 2017 to 4th July 2017	00-24	9050	500	8550	7951	599			
	5th July 2017 and 6th July 2017	00-530	9050	500	8550	7951	599			
		530-14	7750	500	7250	7951	0			
		14-24	9050	500	8550	7951	599			
	7th July 2017	00-0730'	9050	500	8550	7951	599			
		0730-24	8550	500	8050	7951	99			
	8th July 2017 to 14th July 2017	00-24	8550	500	8050	7951	99			
	15th July 2017 to 18th July 2017	00-24	9050	500	8550	7951	599			
	19th July 2017	00-24	7550	500	7050	7951	0			
20th July 2017 to 21st July 2017	00-24	7550	500	7050	7951	0	-1500	Revised due to forced outage of HVDC Champa-Kurukshetra Pole-1		
22nd July 2017 to 31st July 2017	00-24	9050	500	8550	7951	599				
NR-ER*	1st July 2017 to 31st July 2017	00-06	2000	200	1800	193	1607			
		06-18'	2000		1800	303	1497			
		18-24	2000		1800	193	1607			
ER-NR*	1st July 2017 to 31st July 2017	00-24	4500	300	4200	2983	1217			
W3-ER	1st July 2017 to 31st July 2017	00-24	No limit is being specified.							
ER-W3	1st July 2017 to 31st July 2017	00-24	No limit is being specified.							
WR-SR	1st July 2017	00-05	4350	500	3850	3888	0			
		05-22	4350		3850		0			
		22-24	4350		3850		0			
	2nd July 2017	00-05	4350	500	3850	3888	0			
		05-0730	4350		3850		0			
		0730-22	2950		2450		0			
	22-24	22-24	2950		2450		0			
		3rd July 2017 to 17th July 2017	00-05	4350	500	3850	3888	0		
			05-22	4350		3850		0		
	22-24		4350	3850		0				
	18th July 2017 and 19th July 2017	00-05	4350	500	3850	3888	0			
		05-09	4350		3850		0			
		09-14	3550		3050		0			
		14-22	4350		3850		0			
	22-24	22-24	4350		3850		0			
		20th July 2017	00-05	4350	500	3850	3888	0		
			05-22	4350		3850		0		
	22-24		4350	3850		0				
	21st July 2017	00-05	4350	500	3850	3888	0			
		05-0830	4350		3850		0			
		0830-14	3350		2850		0	-1000	Revised due to Black start Mock Drill exercise at HVDC Bhadravati and Ramagundam	
14-22		4350	3850		0					
22-24	22-24	4350		3850		0				
	22nd July 2017 to 31st July 2017	00-05	4350	500	3850	3888	0			
		05-22	4350		3850		0			
22-24		4350	3850		0					
SR-WR *	1st July 2017 to 31st July 2017	00-24	No limit is being Specified.							
ER-SR	1st July 2017 to 8th July 2017	00-06	3450	250	3200	3061	139			
		06-18'			3200	3146	54			
		18-24			3200	3061	139			
	09th July 2017	00-06	3450	250	3200	3061	139			
		06-0830'	3450		3200	3146	54			
		0830-18	3100		2850	3146	0			
18-24	3450		3200	3061	139					

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ER-SR	10th July 2017 to 13th July 2017	00-06	3450	250	3200	3061	139			
		06-18'				3146	54			
		18-24				3061	139			
	14th July 2017 to 31st July 2017	00-06	3450	250	3200	2618	582			
		06-18'				2703	497			
		18-24				2618	582			
SR-ER *	1st July 2017 to 31st July 2017	00-24	No limit is being Specified.							
ER-NER	1st July 2017 to 4th July 2017	00-17	1035	45	990	225	765			
		17-23	1010		965		740			
		23-24	1035		990		765			
	5th July 2017	00-08	1035	45	990	225	765			
		08-16	790		745		520			
		16-17	1035		990		765			
		17-23	1010		965		740			
	6th July 2017 to 31st July 2017	23-24	1035	45	990	225	765			
		00-17	1035		990		765			
		17-23	1010		965		740			
	NER-ER	1st July 2017 to 4th July 2017	00-17	1180	45	1135	0	1135		
			17-23	1050		1005		1005		
23-24			1180	1135		1135				
5th July 2017		00-08	1180	45	1135	0	1135			
		08-16	930		885		885			
		16-17	1180		1135		1135			
		17-23	1050		1005		1005			
6th July 2017 to 31st July 2017		23-24	1180	45	1135	0	1135			
		00-17	1180		1135		1135			
		17-23	1050		1005		1005			
W3 zone Injection		1st July 2017 to 31st July 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) 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 :

- 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.

SR	1st July 2017	00-05	7800	750	7050	6949	101		
		05-06	7800		7050	6949	101		
		06-18	7800		7050	7034	16		
		18-22	7800		7050	6949	101		
		22-24	7800		7050	6949	101		
	2nd July 2017	00-05	7800	750	7050	6949	101		
		05-06	7800		7050	6949	101		
		06-0730	7800		7050	7034	16		
		0730-18	6400		5650	7034	0		
		18-22	6400		5650	6949	0		
	3rd July 2017 to 8th July 2017	00-05	7800	750	7050	6949	101		
		05-06	7800		7050	6949	101		
		06-18	7800		7050	7034	16		
		18-22	7800		7050	6949	101		
		22-24	7800		7050	6949	101		
	09th July 2017	00-05	7800	750	7050	6949	101		
		05-06	7800		7050	6949	101		
		06-0830	7800		7050	7034	16		
		0830-18	7450		6700	7034	0		
		18-22	7800		7050	6949	101		
	10th July 2017 to 13th July 2017	00-05	7800	750	7050	6949	101		
		05-06	7800		7050	6949	101		
		06-18	7800		7050	7034	16		
		18-22	7800		7050	6949	101		
		22-24	7800		7050	6949	101		
	14th July 2017 to 17th July 2017	00-05	7800	750	7050	6506	544		
		05-06	7800		7050	6506	544		
		06-18	7800		7050	6591	459		
		18-22	7800		7050	6506	544		
		22-24	7800		7050	6506	544		
	18th July 2017 and 19th July 2017	00-05	7800	750	7050	6506	544		
		05-06	7800		7050	6506	544		
		06-09	7800		7050	6591	459		
		09-14	7000		6250	6591	0		
		14-18	7800		7050	6591	459		
	20th July 2017	00-05	7800	750	7050	6506	544		
		05-06	7800		7050	6506	544		
		06-18	7800		7050	6591	459		
		18-22	7800		7050	6506	544		
		22-24	7800		7050	6506	544		
21st July 2017	00-05	7800	750	7050	6506	544		Revised due to Black start Mock Drill exercise at HVDC Bhadravati and Ramagundam	
	05-06	7800		7050	6506	544			
	06-0830	7800		7050	6591	459			
	0830-14	6800		6050	6591	0			
	14-18	7800		7050	6591	459			
22nd July 2017 to 31st July 2017	00-05	7800	750	7050	6506	544			
	05-06	7800		7050	6506	544			
	06-18	7800		7050	6591	459			
	18-22	7800		7050	6506	544			
	22-24	7800		7050	6506	544			

* 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 July 2017 to 31st July 2017	00-06	4500	700	3800	248	3552			
		06-18'			3800	368	3432			
		18-24			3800	248	3552			
NER	1st July 2017 to 4th July 2017	00-17	1180	45	1135	0	1135			
		17-23	1050		1005		1005			
		23-24	1180		1135		1135			
	5th July 2017	00-08	1180	45	1135	0	1135			
		08-16	930		885		885			
		16-17	1180		1135		1135			
		17-23	1050		1005		1005			
	6th July 2017 to 31st July 2017	23-24	1180	45	1135	0	1135			
		00-17	1180		1135		1135			
		17-23	1050		1005		1005			
	WR									
SR *	1st July 2017 to 31st July 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 (Corridor wise)

Corridor	Constraint	Applicable Revisions
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak	All
WR-NR	(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. High Loading of 400kV Singrauli-Anpara S/C.	All
	(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. High Loading of 400kV Singrauli-Anpara S/C and restriction on power flow of HVDC Vindhychal from WR to NR.	Rev 8 - 13
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	All
ER-NR	(n-1) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon S/c and high availability of Hydro power	All
WR-SR & ER-SR	(n-1) contingency of 765kV Aurangabad-Sholapur will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C)	Rev 0
	(n-1) contingency of 400 kV Dichipalli-Ramagundam or (n-1) contingency of one circuit of 765kV Aurangabad-Sholapur will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C)	Rev 1-4, Rev 6-8, 10, 13
	(n-1) contingency of other ckt of 765kV Raichur-Sholapur will lead to 874MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C)	Rev 5
	(n-1) contingency of One pole will lead to 874MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C and one unit at simhadri-i is under annual maintenance)	Rev 9
	(n-1) contingency of ICT # 2 at Nizamabad will lead to 874MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C and one unit at simhadri-i is under annual maintenance)	Rev 11-12
	Low Voltage at Gazuwaka (East) Bus.	All
ER-NER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa High loading of 220 kV Sonabil-Samaguri line(200 MW)	All
NER-ER	(n-1) contingency of 400 kV Byrnihat - Bongaigaon line High loading of 220 kV Sonabil-Samaguri line(200 MW)	All
W3 zone Injection	---	

Limiting Constraints (Simultaneous)

			Applicable Revisions
NR	Import	(n-1) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon S/C and high availability of Hydro power	All
		(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. High Loading of 400kV Singrauli-Anpara S/C.	All
		(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. High Loading of 400kV Singrauli-Anpara S/C and restriction on power flow of HVDC V'chal from WR to NR.	Rev 8-13
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	All
		(n-1) contingency of 400 kV Saranath-Pusauli	All
NER	Import	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa High loading of 220 kV Sonabil-Samaguri line(200 MW)	All
	Export	(n-1) contingency of 400 kV Byrnihat - Bongaigaon line High loading of 220 kV Sonabil-Samaguri line(200 MW)	All
SR	Import	(n-1) contingency of one circuit of 765kV Aurangabad-Sholapur will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C)	Rev 0
		(n-1) contingency of 400 kV Dichipalli-Ramagundam or (n-1) contingency of one circuit of 765kV Aurangabad-Sholapur will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C)	Rev 1-4, Rev 6-8, 10, 13
		(n-1) contingency of other ckt of 765kV Raichur-Sholapur will lead to 874MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna	Rev 5
		(n-1) contingency of One pole will lead to 874MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C and one unit at simhadri-i is under annual maintenance)	Rev 9
		(n-1) contingency of ICT # 2 at Nizamabad will lead to 874MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C and one unit at simhadri-i is under annual maintenance)	Rev 11-12
		Low Voltage at Gazuwaka (East) Bus	All

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

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	27th April 2017	Whole month	STOA Margins revised due to change in LTA / MTOA approved by CTU	ER - NR / Import of NR
			Revised considering commissioning of one pole of HVDC Champa - Kurukshetra, the present load generation balance and change in LTA/MTOA approved by CTU	WR - NR / Import of NR
			Revised considering the commissioning of 765 kV Durg - Wardha D/C, second ICT at Vemagiri, 765 kV Wardha - Nizamabad D/C, two ICTs at Nizamabad, and 400 kV Nizamabad-Dichipally D/C.	WR - SR / ER - SR / Import of SR
2	5th May 2017	Whole month	Revised considering the latest LTA/MTOA granted by CTU	WR - SR / ER - SR / Import of SR
3	9th May 2017	Whole month	Revised considering the latest LTA/MTOA granted by CTU	WR - SR / Import of SR
4	23rd May 2017	Whole month	Revised considering present Inter-regional flow pattern	Import of NR
5	01st July 2017	02nd July 2017	Revised due to shutdown of 765kV Raichur-Sholapur-1	WR - SR / Import of SR
6	03rd July 2017	05th July 2017	Revised due to day-time shutdown of 400/220 kV ICT-II at Misa Substation	ER - NER / NER - ER
7	04th July 2017	05th & 06th July 2017	Due to Shutdown of Champa-Kurukshetra pole-1 for testing of Pole-2	WR-NR/ NR Import
8	06th July 2017	07th to 14 July 2017	Revised due to shutdown of HVDC Rihand Dadri Pole-1	WR-NR/ NR Import
9	7th July 2017	9th July 2017	Revised due to shutdown of 400kV Rengali-Indravati S/C	ER-SR/SR Import
10	13th July 2017	14th July to 31st July 2017	Revised STOA margins due to planned shutdown of Unit#4 of Talcher Stg-II for 45 days	ER-SR/SR Import
11	17th July 2017	18th and 19th July 2017	Revised Due to Shutdown of one ICT at Nizamabad SS	WR-SR/SR Import
12	18th July 2017	19th July 2017	Revised due to forced outage of HVDC Champa-Kurukshetra Pole-1	WR-NR/ NR Import
13	19th July 2017	20th July 2017 and 21st July 2017	Revised due to forced outage of HVDC Champa-Kurukshetra Pole-1	WR-NR/ NR Import
		21st July 2017	Revised due to Black start Mock Drill exercise at HVDC Bhadravati and Ramagundam	WR-SR/SR Import

ASSUMPTIONS IN BASECASE					
					Month : July'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	10671	9480	4285	4302
2	Haryana	8203	8052	1533	1533
3	Rajasthan	8264	9534	4458	4458
4	Delhi	5767	6332	940	940
5	Uttar Pradesh	14322	14317	10032	10036
6	Uttarakhand	1869	1634	985	962
7	Himachal Pradesh	1184	1068	921	863
8	Jammu & Kashmir	2359	1498	920	930
9	Chandigarh	327	300	0	0
10	ISGS/IPPs	27	27	19979	18386
	Total NR	52992	52241	44053	42410
II	EASTERN REGION				
1	Bihar	3920	2608	238	238
2	Jharkhand	1193	836	397	337
3	Damodar Valley Corporation	2961	2554	4468	3768
4	Orissa	4173	3199	3342	2325
5	West Bengal	8359	5800	5216	4148
6	Sikkim	88	89	0	0
7	Bhutan	245	245	982	982
8	ISGS/IPPs	560	567	11255	8518
	Total ER	21469	15868	25869	20286
III	WESTERN REGION				
1	Maharashtra	14940	11898	9694	7279
2	Gujarat	12432	10131	9835	7466
3	Madhya Pradesh	7044	5925	3569	3099
4	Chattisgarh	3353	3104	1915	2461
5	Daman and Diu	286	279	0	0
6	Dadra and Nagar Haveli	740	717	0	0
7	Goa-WR	399	296	0	0
8	ISGS/IPPs	2701	2844	32655	29850
	Total WR	41896	35194	57668	50154
IV	SOUTHERN REGION				
1	Andhra Pradesh	7900	7330	6080	5500
2	Telangana	7305	5815	4523	3329
3	Karnataka	8717	7530	5689	4314
4	Tamil Nadu	14750	12574	8145	6750
5	Kerala	3450	1780	1499	283
6	Pondy	395	395	0	0
7	Goa-SR	89	89	0	0
8	ISGS/IPPs	0	0	11044	9692
	Total SR	42606	35513	36980	29868
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	143	89	0	0
2	Assam	1227	1069	240	200
3	Manipur	150	76	0	0
4	Meghalaya	268	200	214	164
5	Mizoram	95	69	8	8
6	Nagaland	122	83	22	16
7	Tripura	254	157	75	75
8	ISGS/IPPs	100	60	2030	1888
	Total NER	2359	1803	2589	2351
	Total All India	161566	140864	168142	146052