

National Load Despatch Centre
Total Transfer Capability for June 2018

Issue Date: 30th May 2018

Issue Time: 1300 hrs

Revision No. 7

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 June 2018 to 30th June 2018	00-06	2500	500	2000	100	1900		
		06-18				110	1890		
		18-24				100	1900		
WR-NR*	1st June 2018 to 30th June 2018	00-24	10000	500	9500	9127	373		
			9050**		8550**	8177**	373**		
NR-ER*	1st June 2018 to 30th June 2018	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st June 2018 to 30th June 2018	00-24	5250	300	4950	3407	1543		
W3-ER	1st June 2018 to 30th June 2018	00-24	No limit is being specified.						
ER-W3	1st June 2018 to 30th June 2018	00-24	No limit is being specified.						
WR-SR	1st June 2018	00-07	5150	500	4650	4515	135		Revised due to Continuous shutdown of 400kV Ramagundam-Chandrapur-1 and 2
		07-22	4150		3650		0	-1000	
		22-24	4150		3650		0	-1000	
	2nd June 2018 to 09th June 2018	00-05	4150	500	3650	4515	0	-1000	
		05-22	4150		3650		0	-1000	
		22-24	4150		3650		0	-1000	
	10th June 2018 to 30th June 2018	00-05	5150	500	4650	4515	135		
		05-22	5150		4650		135		
		22-24	5150		4650		135		
SR-WR *	1st June 2018 to 30th June 2018	00-24	No limit is being Specified.						
ER-SR	1st June 2018 to 30th June 2018	00-06	4350	250	4100	3263	837		
		06-18				3348	752		
		18-24				3263	837		
SR-ER *	1st June 2018 to 30th June 2018	00-24	No limit is being Specified.						
ER-NER	1st June 2018 to 30th June 2018	00-17	1250	45	1205	225	980		
		17-23	1110		1065		840		
		23-24	1250		1205		980		
		00-17	1760		1715		1715		
NER-ER	1st June 2018 to 30th June 2018	17-23	1780	45	1735	0	1735		
		23-24	1760		1715		1715		
		00-17	1760		1715		1715		

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W3 zone Injection	1st June 2018 to 30th June 2018	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).

**Considering 400 kV Rihand stage-III - Vindhyachal PS D/C line as inter-regional line for the purpose of scheduling, metering and accounting and 950 MW ex-bus generation in Rihand stage-III. Rihand Stage-III generation is considered as NR regional entity.

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.

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 June 2018 to 30th June 2018	00-18	14300 13350**	800	13500 12550**	12592 11642**	908 908**		
		18-23	12800 11850**		12000 11050**		0 0**		
		23-24	14300 13350**		13500 12550**		908 908**		
NER	1st June 2018 to 30th June 2018	00-17	1250	45	1205	225	980		
		17-23	1110		1065		840		
		23-24	1250		1205		980		
WR									
SR	1st June 2018	00-05	9500	750	8750	7778	972		Revised due to Continuous shutdown of 400kV Ramagundam-Chandrapur-1 and 2
		05-06	9500		8750	7778	972		
		06-07	9500		8750	7863	887		
		07-18	8500		7750	7863	0	-1000	
		18-22	8500		7750	7778	0		
		22-24	8500		7750	7778	0		
SR	2nd June 2018 to 09th June 2018	00-05	8500	750	7750	7778	0	-1000	Revised due to Continuous shutdown of 400kV Ramagundam-Chandrapur-1 and 2
		05-06	8500		7750	7778	0		
		06-18	8500		7750	7863	0		
		18-22	8500		7750	7778	0		
		22-24	8500		7750	7778	0		
SR	10th June 2018 to 30th June 2018	00-05	9500	750	8750	7778	972		
		05-06	9500		8750	7778	972		
		06-18	9500		8750	7863	887		
		18-22	9500		8750	7778	972		
		22-24	9500		8750	7778	972		

* 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).

**Considering 400 kV Rihand stage-III - Vindhyachal PS D/C line as inter-regional line for the purpose of scheduling, metering and accounting and 950 MW ex-bus generation in Rihand stage-III. Rihand Stage-III generation is considered as NR regional entity.

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
<p>* 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</p> <p>Margin for WR-NR applicants = $A * B / (B + C)$ Margin for ER-NR Applicants = $A * C / (B + C)$</p>									

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 June 2018 to 30th June 2018	00-06	4500	700	3800	248	3552		
		06-18			3800	368	3432		
		18-24			3800	248	3552		
NER	1st June 2018 to 30th June 2018	00-17	1760	45	1715	0	1715		
		17-23	1780		1735		1735		
		23-24	1760		1715		1715		
WR									
SR *	1st June 2018 to 30th June 2018	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	Rev-0 to 7
WR-NR	(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit.	Rev-0 to 3
	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev- 4 to 6
	(n-1) contingency of 765/400 kV Agra ICT leads to high loading on other ICT	Rev-7
	Restriction on Mundra Mahindragarh power flow due to high loading on 765/400 kV Vadodara ICTs	Rev-7
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 7
ER-NR	1. N-1 contingencies of 400 kV Mejia-Maithon A S/c 2. N-1 contingencies of 400 kv Kahalgaon-Banka S/c 3. N-1 contingencies of 400kV MPL- Maithon S/C	Rev-0 to 7
WR-SR and ER-SR	a. (n-1) contingency of one ckt of 765 kV Wardha-Nizamabad D/C will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (When 400kV Vemagiri(PG)-Nunna S/C is not in service)	Rev-0
	b. (n-1) contingency of 400 kV Vemagiri - Vijaywada S/C will lead to high loading (874 MW) on 400 kV Vemagiri - Gazuwaka S/C (When 400 kV Vemagiri(PG) - Nunna S/C in kept in service)	
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 7
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 7
ER-NER	a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa	Rev-0 to 7
	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 ICT at Misa	Rev-0 to 7
W3 zone Injection	---	Rev-0 to 7

Limiting Constraints (Simultaneous)

		Applicable Revisions	
NR	Import	1. N-1 contingencies of 400 kV Mejia-Maithon A S/c 2. N-1 contingencies of 400 kV Kahalgaon-Banka S/c 3. N-1 contingencies of 400 kV MPL- Maithon S/c	Rev-0 to 7
		(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit.	Rev-0 to 3
		(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-4 to 6
	Export	(n-1) contingency of 765/400 kV Agra ICT leads to high loading on other ICT	Rev-7
		Restriction on Mundra Mahindragarh power flow due to high loading on 765/400 kV Vadodara ICTs	Rev-7
		(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev-0 to 7
(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)	Rev-0 to 7
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 7
SR	Import	a. (n-1) contingency of one ckt of 765 kV Wardha-Nizamabad D/C will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (When 400kV Vemagiri(PG)-Nunna S/C is not in service)	Rev-0
		b. (n-1) contingency of 400 kV Vemagiri - Vijaywada S/C will lead to high loading (874 MW) on 400 kV Vemagiri - Gazuwaka S/C (When 400 kV Vemagiri(PG) - Nunna S/C in kept in service)	
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 7
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 7

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	23rd March 2018	Whole Month	1. Revised due to commissioning/ reconfiguration of following lines: (a) Commissioning of 400kV Vijaywada(PG)-Vemagiri (PG) Ckt 2 & 3 (b) Commissioning of 400kV Vemagiri (PG)-Vemagiri (AP) 1 & 2 (c) Vemagiri (AP) end of 400 kV Simhadri II - Vemagiri (AP)- ckt 1 & 2 moved to 400 kV Vemagiri (PG) 2. With the commissioning/ reconfiguration of above lines, TTC/ATC for Import of SR remains unchanged however the relative sensitivity of ER-SR and WR-SR to net import of SR has changed. The limiting constraint which was earlier (n-1) contingency of one ckt of 765 kV Wardha-Nizamabad D/C and (n-1) contingency of 400 kV Vemagiri - Vijaywada S/C has also shifted to n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG).	ER-SR/WR-SR
2	27th Mar 2018	Whole month	Revised STOA margin due to 200 MW LTA from Bokaro TPS-A of DVC to PSPCL	ER-NR/Import of NR
3	2nd April 2018	Whole month	Revised STOA margins due to change in allocation from WR-ISGS to J&K, to WR ISGS to Gujarat	WR-NR/Import of NR
4	26th April 2018	Whole month	Revised considering (a) newly commissioned 765kV Jabalpur-Orai D/C, Orai-Aliagarh D/C ,LILLO 765kV Satna-Gwalior-1 S/C at Orai , 2*1000MVA 765/400kV Orai ICTs, 400kV Orai PG- Orai UP D/C , LILLO of 765kV Kanpur-Jhatikara S/C at Aligarh, LILLO of 765kV Agra-Greater Noida at Aligarh and (b) due to restriction on power order of HVDC Mundra - Mahindragarh bipole due to low generation at APL Mundra	WR-NR/Import of NR
5	11th May 2018	Whole Month	Revised STOA margins due to operationalization of 174 MW LTA from Teesta-III HEP to UP discoms w.e.f. 12th May 2018	ER-NR/Import of NR
6	28th May 2018	Whole Month	Revised due to: (a) Forced outage of (i) 765 kV Agra-Gwalior-S/C (ii) 765 kV Agra Aligarh S/C. (iii) 765 kV Agra-Jhatikara S/C (b) Restriction on Mundra Mohindragarh power flow due to high loading on 765/400 kV Vadodara ICTs (c) Frequent outage of HVDC Champa Kurukshetra Pole (d) Change in STOA margin due to relinquishment of 52 MW MTOA	WR-NR/Import of NR
			Revised STOA margins due to change in LTA	ER-NR/Import of NR
			Revised STOA margins due to change in LTA	ER-SR/Import of SR
			Revised STOA margins due to change in LTA	NR-WR
7	30th May 2018	01st June 18 to 09th June 18	Revised due to Continuous shutdown of 400kV Ramagundam-Chandrapur-1 and 2	WR-SR/Import of SR

ASSUMPTIONS IN BASECASE					
				Month : June'18	
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	9707	9255	5080	5139
2	Haryana	7845	7675	2070	2070
3	Rajasthan	10903	10986	6590	6590
4	Delhi	6209	6317	979	979
5	Uttar Pradesh	17071	16516	9906	9869
6	Uttarakhand	2141	1443	1086	970
7	Himachal Pradesh	1467	785	671	477
8	Jammu & Kashmir	2576	2095	927	919
9	Chandigarh	318	220	0	0
10	ISGS/IPPs	25	25	20852	18422
	Total NR	58263	55317	48161	45435
II	EASTERN REGION				
1	Bihar	4191	2611	310	220
2	Jharkhand	1141	864	364	280
3	Damodar Valley Corporation	2804	2491	5264	3725
4	Orissa	3987	3155	3015	2450
5	West Bengal	8786	5468	5340	3720
6	Sikkim	85	85	0	0
7	Bhutan	214	220	784	582
8	ISGS/IPPs	264	258	11528	9399
	Total ER	21472	15151	26605	20377
III	WESTERN REGION				
1	Maharashtra	15689	15068	10238	9681
2	Gujarat	13522	13370	8045	9316
3	Madhya Pradesh	7995	6892	2889	3127
4	Chattisgarh	3509	3177	2230	2230
5	Daman and Diu	237	300	0	0
6	Dadra and Nagar Haveli	674	764	0	0
7	Goa-WR	474	326	0	0
8	ISGS/IPPs	3553	3411	39400	34704
	Total WR	45653	43308	62801	59058

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
IV	SOUTHERN REGION				
1	Andhra Pradesh	8636	8691	6402	3978
2	Telangana	7593	5803	3899	2983
3	Karnataka	9129	6068	6560	5033
4	Tamil Nadu	14945	13659	7857	7451
5	Kerala	3635	2109	1482	129
6	Pondy	376	374	0	0
7	Goa-SR	85	84	0	0
8	ISGS/IPPs	0	0	11925	10693
	Total SR	44398	36788	38125	30267
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	137	74	0	0
2	Assam	1278	1084	228	116
3	Manipur	171	87	0	0
4	Meghalaya	281	196	192	66
5	Mizoram	102	69	8	8
6	Nagaland	122	83	22	12
7	Tripura	242	149	78	78
8	ISGS/IPPs	141	100	1995	1773
	Total NER	2475	1844	2523	2053
	Total All India	172704	152805	179054	157811