

**National Load Despatch Centre**  
**Total Transfer Capability for June 2018**

Issue Date: 31st May 2018

Issue Time: 1200 hrs

Revision No. 8

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		
		07-22	4150		3650		0		
		22-24	4150		3650		0		
	2nd June 2018 to 09th June 2018	00-05	4150	500	3650	4515	0		
		05-22	4150		3650		0		
		22-24	4150		3650		0		
	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	00-09	1200	45	1155	225	930	-50	Revised due to change in load - generation pattern of NER & addition of Pare HEP (2*55 MW) along-with daytime shutdown of 400 kV Bongaigaon-Azara S/C
		09-17	980		935		-270		
		17-23	950		905		-160		
		23-24	980		935		-270		
	2nd June 2018 to 30th June 2018	00-17	1200	45	1155	225	930	-50	Revised due to change in load - generation pattern of NER and addition of Pare HEP (2*55 MW)
		17-23	1100		1055		-10		
NER-ER	1st June 2018	00-09	1710	45	1665	0	1665	-50	Revised due to change in load - generation pattern of NER & addition of Pare HEP (2*55 MW) along-with daytime shutdown of 400 kV Bongaigaon-Azara S/C
		09-17	1600		1555		-160		
		17-23	1570		1525		-210		
		23-24	1600		1555		-160		
	2nd June 2018 to 30th June 2018	00-17	1710	45	1665	0	1665	-50	Revised due to change in load - generation pattern of NER and addition of Pare HEP (2*55 MW)
		17-23	1760		1715		-20		
23-24	1710	1665	-50						

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<b>W3 zone Injection</b>	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)						
<b>Note: TTC/ATC of S1-(S2&amp;S3) corridor, Import of S3(Kerala), Import of Punjab and Import of DD &amp; DNH is uploaded on NLDC website under Intra-Regional Section in Monthly ATC.</b>									

\* 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 :

- The TTC value will be revised to normal values after restoration of shutdown.
- 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
<b>ER</b>									
<b>NR</b>	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**		
<b>NER</b>	1st June 2018	00-09	1200	45	1155	225	930	-50	Revised due to change in load - generation pattern of NER & addition of Pare HEP (2*55 MW) along-with daytime shutdown of 400 kV Bongaigaon-Azara S/C
		09-17	980		935		710	-270	
		17-23	950		905		680	-160	
		23-24	980		935		710	-270	
	2nd June 2018 to 30th June 2018	00-17	1200	45	1155	225	930	-50	Revised due to change in load - generation pattern of NER and addition of Pare HEP (2*55 MW)
		17-23	1100		1055		830	-10	
		23-24	1200		1155		930	-50	
<b>WR</b>									
<b>SR</b>	1st June 2018	00-05	9500	750	8750	7778	972		
		05-06	9500		8750	7778	972		
		06-07	9500		8750	7863	887		
		07-18	8500		7750	7863	0		
		18-22	8500		7750	7778	0		
		22-24	8500		7750	7778	0		

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	2nd June 2018 to 09th June 2018	00-05	8500	750	7750	7778	0		
		05-06	8500		7750	7778	0		
		06-18	8500		7750	7863	0		
		18-22	8500		7750	7778	0		
		22-24	8500		7750	7778	0		
	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.

\* 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 June 2018 to 30th June 2018	00-06	4500	700	3800	248	3552		
		06-18			3800	368	3432		
		18-24	4500		3800	248	3552		
NER	1st June 2018	00-09	1710	45	1665	0	1665	-50	Revised due to change in load - generation pattern of NER & addition of Pare HEP (2*55 MW) along-with daytime shutdown of 400 kV Bongaigaon-Azara S/C
		09-17	1600		1555		1555	-160	
		17-23	1570		1525		1525	-210	
		23-24	1600		1555		1555	-160	
	2nd June 2018 to 30th June 2018	00-17	1710	45	1665	0	1665	-50	Revised due to change in load - generation pattern of NER and addition of Pare HEP (2*55 MW)
		17-23	1760		1715		1715	-20	
		23-24	1710		1665		1665	-50	
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
<b>NR-WR</b>	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak	Rev-0 to 8
<b>WR-NR</b>	(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-6 to 8
	Restriction on Mundra Mahindragarh power flow due to high loading on 765/400 kV Vadodara ICTs	Rev-6 to 8
<b>NR-ER</b>	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 8
<b>ER-NR</b>	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 8
<b>WR-SR and ER-SR</b>	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 8
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 8
<b>ER-NER</b>	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 8
<b>NER-ER</b>	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 8
<b>W3 zone Injection</b>	---	Rev-0 to 8

### Limiting Constraints (Simultaneous)

		Applicable Revisions	
<b>NR</b>	<b>Import</b>	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 8
		(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
	<b>Export</b>	(n-1) contingency of 765/400 kV Agra ICT leads to high loading on other ICT	Rev-6 to 8
		Restriction on Mundra Mahindragarh power flow due to high loading on 765/400 kV Vadodara ICTs	Rev-6 to 8
		(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev-0 to 8
(n-1) contingency of 400 kV Saranath-Pusauli			
<b>NER</b>	<b>Import</b>	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 8
	<b>Export</b>	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 8
<b>SR</b>	<b>Import</b>	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 8
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 8

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Total Transfer Capability for June 2018**

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 ,LILo 765kV Satna-Gwalior-1 S/C at Orai , 2*1000MVA 765/400kV Orai ICTs, 400kV Orai PG- Orai UP D/C , LILo of 765kV Kanpur-Jhatikara S/C at Aligarh, LILo 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
8	31st May 2018	01st June 18	Revised due to daytime shutdown of 400 kV Bongaigaon-Azara S/C	ER-NER/NER-ER/Import/Export of NER
		Whole Month	Revised due to change in load - generation pattern of NER and addition of Pare HEP (2*55 MW)	ER-NER/NER-ER/Import/Export of NER

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