

National Load Despatch Centre
Total Transfer Capability for May 2018

Issue Date: 3rd May 2018

Issue Time: 1200 hrs

Revision No. 6

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 May 2018 to 31st May 2018	00-06	2500	500	2000	55	1945		
		06-18				65	1935		
		18-24				55	1945		
WR-NR*	1st May 2018 to 3rd May 2018	00-24	10300 9350**	500	9800 8850**	9179 8229**	621 621**		
	4th May 2018 to 11th May 2018	00-24	7700 6750**	500	7200 6250**	9179 8229**	0 0**	-2600	Revised TTC/ATC due to (a) Forced outage of following elements: 1. 765 kV Agra Gwalior D/C 2. 765 kV Agra Aligarh S/C 3. 765 kV Agra - Fatehpur D/C 4. 765 kV Agra Jhatikara S/C 5. 765/400 kV Agra ICTs 6. Outage of HVDC BNC -Alipurduar-Agra 7. 765 kV Kanpur Varanasi D/C 8. 400 kV Agra Kanpur S/C (b) Frequent outage of HVDC Champa Kurukshetra Pole (c) Restriction on Mundra Mohindragarh power flow due to high loading on 765/400 kV Vadodara ICTs
	12th May 2018 to 31st May 2018	00-24	10300 9350**	500	9800 8850**	9179 8229**	621 621**		
NR-ER*	1st May 2018 to 31st May 2018	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st May 2018 to 31st May 2018	00-24	4500	300	4200	3239	961		
W3-ER	1st May 2018 to 31st May 2018	00-24	No limit is being specified.						
ER-W3	1st May 2018 to 31st May 2018	00-24	No limit is being specified.						

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WR-SR	1st May 2018 to 3rd May 2018	00-05	5150	500	4650	4415	235		Revised due to day time shutdown of 765/400 kV Nizamabad ICT-2		
		05-22	5150		4650		235				
		22-24	5150		4650		235				
	4th May 2018	00-0930	5150	500	4650	4415	235				
		0930-18	4950		4450		35	-200			
		18-22	5150		4650		235				
		22-24	5150		4650		235				
	5th May 2018 to 31st May 2018	00-05	5150	500	4650	4415	235				
		05-22	5150		4650		235				
		22-24	5150		4650		235				
	SR-WR *	1st May 2018 to 31st May 2018	00-24	No limit is being Specified.							
	ER-SR	1st May 2018 to 31st May 2018	00-06	4350	250	4100		3262		838	
06-18			3347					753			
18-24			3262					838			
SR-ER *	1st May 2018 to 31st May 2018	00-24	No limit is being Specified.								
ER-NER	1st May 2018 to 31st May 2018	00-17	1250	45	1205	225	980				
		17-23	1110		1065		840				
		23-24	1250		1205		980				
NER-ER	1st May 2018 to 31st May 2018	00-17	1760	45	1715	0	1715				
		17-23	1780		1735		1735				
		23-24	1760		1715		1715				
W3 zone Injection	1st May 2018 to 31st May 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) KWPC, n) Vandana Vidut 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.

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 May 2018 to 3rd May 2018	00-05	9500	750	8750	7677	1073			
		05-06	9500		8750	7677	1073			
		06-18	9500		8750	7762	988			
		18-22	9500		8750	7677	1073			
		22-24	9500		8750	7677	1073			
	4th May 2018	00-0930	9500	750	8750	7677	1073			Revised due to day time shutdown of 765/400 kV Nizamabad ICT-2
		0930-18	9300		8550	7677	873	-200		
		18-22	9500		8750	7762	988			
		22-24	9500		8750	7677	1073			
	5th May 2018 to 31st May 2018	00-05	9500	750	8750	7677	1073			
		05-06	9500		8750	7677	1073			
		06-18	9500		8750	7762	988			
		18-22	9500		8750	7677	1073			
		22-24	9500		8750	7677	1073			

* 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.

<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>
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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 May 2018 to 31st May 2018	00-06	4500	700	3800	248	3552		
		06-18			3800	368	3432		
		18-24	4500		3800	248	3552		
NER	1st May 2018 to 31st May 2018	00-17	1760	45	1715	0	1715		
		17-23	1780		1735		1735		
		23-24	1760		1715		1715		
WR									
SR *	1st May 2018 to 31st May 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)

		Applicable Revisions
Corridor	Constraint	
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak	Rev-0 to 6
WR-NR	(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit.	Rev-0 to 4
	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev- 5 to 6
	Restriction on Mundra Mahindragarh power flow due to high loading on 765/400 kV Vadodara ICTs	Rev-6
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 6
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 6
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) 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)	Rev-0 to 1
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 6
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-2 to 6
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)	Rev-0 to 6
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 6
W3 zone Injection	---	Rev-0 to 6

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 400kV MPL- Maithon S/c	Rev- 0 to 6
		(n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit.	Rev-0 to 4
		(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev- 5 to 6
	Export	Restriction on Mundra Mahindragarh power flow due to high loading on 765/400 kV Vadodara ICTs	Rev-6
		(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 6
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 6
	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 6
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) 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)	Rev-0 to 1
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 6
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-2 to 6

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	26th Feb 2018	Whole Month	Revised STOA margin due to (a) 50 MW allocation to Karnataka from NTPC WR plants (b) 5 MW allocation to Telangana from NTPC WR plants	WR-SR/Import of SR
			Revised STOA margins due to change in Talcher Stg-II DC	ER-SR/Import of SR
2	23rd March 2018	Whole Month	<p>1. Revised due to commissioning/ reconfiguration of following lines:</p> <p>(a) Commissioning of 400kV Vijaywada(PG)-Vemagiri (PG) Ckt 2 & 3</p> <p>(b) Commissioning of 400kV Vemagiri (PG)-Vemagiri (AP) 1 & 2</p> <p>(c) Vemagiri (AP) end of 400 kV Simhadri II - Vemagiri (AP)-ckt 1 & 2 moved to 400 kV Vemagiri (PG)</p> <p>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).</p>	ER-SR/WR-SR
3	27th March 2018	Whole Month	Revised STOA margin due to 200 MW LTA from Bokaro TPS-A of DVC to PSPCL	ER-NR/Import of NR
4	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
5	26th April 2018	Whole Month	<p>Revised considering</p> <p>(a) newly commissioned 765kV Jabalpur-Orai D/C, Orai-Allahgarh D/C, LIL0 765kV Satna-Gwalior-1 S/C at Orai, 2*1000MVA 765/400kV Orai ICTs, 400kV Orai PG- Orai UP D/C, LIL0 of 765kV Kanpur-Jhatikara S/C at Allahgarh, LIL0 of 765kV Agra-Greater Noida at Allahgarh and</p> <p>(b) considering forced outage of 765kV Agra-Jhatikara S/C & 765kV Gaya-Varanasi-2 and (c) due to restriction on power order of HVDC Mundra - Mahindragarh bipole due to low generation at APL Mundra</p>	WR-NR/Import of NR
6	3rd May 2018	4th May 2018 to 11th May 2018	<p>Revised TTC/ATC due to</p> <p>(a) Forced outage of following elements:</p> <ol style="list-style-type: none"> 1. 765 kV Agra Gwalior D/C 2. 765 kV Agra Allahgarh S/C 3. 765 kV Agra - Fatehpur D/C 4. 765 kV Agra Jhatikara S/C 5. 765/400 kV Agra ICTs 6. Outage of HVDC BNC -Alipurduar-Agra 7. 765 kV Kanpur Varanasi D/C 8. 400 kV Agra Kanpur S/C <p>(b) Frequent outage of HVDC Champa Kurukshetra Pole</p> <p>(c) Restriction on Mundra Mahindragarh power flow due to high loading on 765/400 kV Vadodara ICTs</p>	WR-NR/Import of NR
		4th May 2018	Revised due to day time shutdown of 765/400 kV Nizamabad ICT-2	WR-SR/Import of SR

ASSUMPTIONS IN BASECASE					
				Month : May'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	8479	8228	4059	4077
2	Haryana	7777	7660	2139	2139
3	Rajasthan	10146	10147	6390	6337
4	Delhi	5760	5526	691	691
5	Uttar Pradesh	16367	16149	9969	9915
6	Uttarakhand	1886	1687	912	833
7	Himachal Pradesh	1484	1329	589	530
8	Jammu & Kashmir	2851	1640	1079	1071
9	Chandigarh	304	232	0	0
10	ISGS/IPPs	25	25	20090	17008
	Total NR	55078	52624	45919	42602
II	EASTERN REGION				
1	Bihar	3971	2726	310	181
2	Jharkhand	1187	871	384	210
3	Damodar Valley Corporation	2952	2684	4767	4014
4	Orissa	3930	3132	3005	2282
5	West Bengal	7664	5659	5432	4259
6	Sikkim	85	50	0	0
7	Bhutan	212	219	614	582
8	ISGS/IPPs	266	260	11286	9307
	Total ER	20265	15602	25799	20836
III	WESTERN REGION				
1	Maharashtra	18958	18097	11630	10987
2	Gujarat	14011	14396	8909	8909
3	Madhya Pradesh	7898	7788	2992	2992
4	Chattisgarh	3443	3568	2270	2740
5	Daman and Diu	304	293	0	0
6	Dadra and Nagar Haveli	762	742	0	0
7	Goa-WR	472	416	0	0
8	ISGS/IPPs	3852	3656	39424	39424
	Total WR	49700	48955	65225	65052

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	8600	8600	5740	4856
2	Telangana	7546	6122	3759	3063
3	Karnataka	9394	8077	4623	4966
4	Tamil Nadu	15200	13500	8660	6510
5	Kerala	4000	2400	1474	120
6	Pondy	372	372	0	0
7	Goa-SR	84	89	0	0
8	ISGS/IPPs	0	0	15094	13476
	Total SR	45196	39161	39350	32991
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	133	74	0	0
2	Assam	1227	964	245	150
3	Manipur	168	87	0	0
4	Meghalaya	289	195	223	157
5	Mizoram	101	69	8	8
6	Nagaland	117	82	16	8
7	Tripura	240	158	78	78
8	ISGS/IPPs	140	140	1955	1576
	Total NER	2415	1769	2525	1977
	Total All India	173094	158505	179486	164078