

National Load Despatch Centre
Total Transfer Capability for April 2019

Issue Date: 31st March 2019

Issue Time: 1300 hrs

Revision No. 5

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 April 2019 to 30th April 2019	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st April 2019 to 30th April 2019	00-24	13250	500	12750	9485	3265		
			12300**		11800**	8535**	3265**		
NR-ER*	1st April 2019 to 30th April 2019	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st April 2019 to 30th April 2019	00-24	5250	300	4950	3979	971		
W3-ER	1st April 2019 to 30th April 2019	00-24	No limit is being specified.						
ER-W3	1st April 2019 to 30th April 2019	00-24	No limit is being specified.						
WR-SR	1st April 2019 to 30th April 2019	00-05	5550	500	5050	4435	615		
		05-22	5550		5050		615		
		22-24	5550		5050		615		
SR-WR *	1st April 2019 to 30th April 2019	00-24	No limit is being Specified.						
ER-SR	1st April 2019 to 30th April 2019	00-06	4950	250	4700	2762	1938		
		06-18				2847	1853		
		18-24				2762	1938		
SR-ER *	1st April 2019 to 30th April 2019	00-24	No limit is being Specified.						

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ER-NER	1st April 2019	00-08'	1340	45	1295	265	1030	-80	Revised due to Shutdown of 400 kV Bongaigaon - Alipurduar D/C and due to change in load - generation balance and charging of new elements (400/220/33 kV 500 MVA ICT-1 replaced 400/220/33 kV, 315 MVA ICT-1 at Misa, 400/220/33 kV, 315 MVA ICT-2 at Bongaigaon , 400/132 kV, 3x40 MVA ICT at Kameng)	
		08-17'	1180		1135		870	-160		
		17-23	1150		1105		840	-260		
		23-24	1180		1135		870	-160		
	2nd April 2019	00-17	1180	45	1135	265	870	-160		
		17-23	1150		1105		840	-260		
		23-24	1180		1135		870	-160		
	3rd April 2019 to 30th April 2019	00-17	1340	45	1295	265	1030	-80		
		17-23	1410		1365		1100	10		
		23-24	1340		1295		1030	-80		
	NER-ER	1st April 2019	00-08'	2260	45	2215	0	2215		20
			08-17'	1070		1025		1025		-1190
17-23			1100	1055		1055		-1210		
23-24			1070	1025		1025		-1190		
2nd April 2019		00-17	1070	45	1025	0	1025	-1190		
		17-23	1100		1055		1055	-1210		
		23-24	1070		1025		1025	-1190		
3rd April 2019 to 30th April 2019		00-17	2260	45	2215	0	2215	20		
		17-23	2310		2265		2265	-60		
		23-24	2260		2215		2215	20		
W3 zone Injection		1st April 2019 to 30th April 2019	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 Raikhedha, 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 April 2019 to 30th April 2019	00-06	17650 16700**	800	16850 15900**	13464 12514**	3386 3386**		
		06-17	18900 17950**		18100 17150**		4636 4636**		
			17-24		17000 16050**		16200 15250**	2736 2736**	
		NER	1st April 2019 2nd April 2019 3rd April 2019 to 30th April 2019		00-08'		1340	45	
08-17'	1180	1135		870	-160				
17-23	1150	1105		840	-260				
23-24	1180	1135		870	-160				
00-17	1180	45		1135	265	870	-160		
	17-23			1150		1105	840	-260	
	23-24			1180		1135	870	-160	
00-17	1340	45		1295	265	1030	-80		
	17-23			1410		1365	1100	10	
	23-24		1340	1295		1030	-80		
WR									
SR	1st April 2019 to 30th April 2019	00-06	10500	750	9750	7197	2553		
		06-18	10500		9750	7282	2468		
		18-24	10500		9750	7197	2553		

* 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 April 2019 to 30th April 2019	00-06	4500	700	3800	388	3412			
		06-18			3800	553	3247			
		18-24	4500		3800	388	3412			
NER	1st April 2019	00-08'	2260	45	2215	0	2215	20	Revised due to Shutdown of 400 kV Bongaigaon - Alipurduar D/C and due to change in load - generation balance and charging of new elements (400/220/33 kV 500 MVA ICT-1 replaced 400/220/33 kV, 315 MVA ICT-1 at Misa, 400/220/33 kV, 315 MVA ICT-2 at Bongaigaon , 400/132 kV, 3x40 MVA ICT at Kameng)	
		08-17'	1070		1025		-1190			
		17-23	1100		1055		-1210			
		23-24	1070		1025		-1190			
	2nd April 2019	00-17	1070	45	1025	0	1025	-1190		
		17-23	1100		1055		-1210			
		23-24	1070		1025		-1190			
	3rd April 2019 to 30th April 2019	00-17	2260	45	2215	0	2215	20		
		17-23	2310		2265		-60			
		23-24	2260		2215		20			
	WR									
	SR *	1st April 2019 to 30th April 2019	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 5
WR-NR	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 1
	RVO operation of HVDC Champa Kurukshetra Poles Reversal of BNC-Agra pole towards BNC & blocking of APD-Agra pole due to lean hydro period in NER	Rev-0 to 1
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Agra (PG) will lead to overloading of the second ICT	Rev-2 to 5
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 5
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 5
WR-SR and ER-SR	n-1 contingency of 2x315 MVA, 400/220 kV ICTs at Mardam will lead to overloading of the second ICT	Rev-0 to 5
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 5
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 5
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 5
	a) N-1 contingency of either ckt of 400 kV Bongaigaon -New Siliguri line b) High Loading of 220 kV Salakati - Alipurduar D/C (200 MW)	Rev-5
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 5
	a) N-1 contingency of either ckt of 400 kV Bongaigaon -New Siliguri line b) High Loading of 220 kV Salakati - Alipurduar D/C (200 MW)	Rev-5
W3 zone Injection	---	Rev-0 to 5

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 5
		(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 1
		RVO operation of HVDC Champa Kurukshetra Poles Reversal of BNC-Agra pole towards BNC & blocking of APD-Agra pole due to lean hydro period in NER	Rev-0 to 1
	Export	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Agra (PG) will lead to overloading of the second ICT	Rev-2 to 5
		(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220 kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 5
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 5
		a) N-1 contingency of either ckt of 400 kV Bongaigaon -New Siliguri line b) High Loading of 220 kV Salakati - Alipurduar D/C (200 MW)	Rev-5
	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 5
		a) N-1 contingency of either ckt of 400 kV Bongaigaon -New Siliguri line b) High Loading of 220 kV Salakati - Alipurduar D/C (200 MW)	Rev-5
SR	Import	n-1 contingency of 2x315 MVA, 400/220 kV ICTs at Mardam will lead to overloading of the second ICT	Rev-0 to 5
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 5
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 5

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Total Transfer Capability for April 2019**

Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	4th Jan 2019	Whole Month	Revised STOA margins due to: (i) Additional 20 MW LTA to Delhi from Ostro Kutch Wind Power Ltd (OKWPL) (ii) Operationalization of 108 MW MTOA from SKS Power Gen Ltd to Noida Power Company	WR-NR/Import of NR
			Revised TTC due to: (i) Change in load generation balance (ii) Commissioning of circuit 3 & 4 of 765 kV Angul Jharsuguda (iii) Prevailing pattern of load in downstream of 400/220 kV Maradam ICTs	ER-SR/WR-SR/Import of SR
2	28th Jan 2019	Whole Month	Revised TTC due to normalization of Champa Kurukshetra bipole	WR-NR/Import of NR
			Change in pattern of inter-regional flow towards NR	Import of NR
			Revised STOA margin due to termination of 100 MW MTOA from LANCO Anpara power limited to TANGEDCO	WR-SR/Import of SR
3	07th Mar 2019	Whole Month	Operationalization of 87 MW LTA from Teesta - III HEP to Rajasthan	ER-NR/Import of NR
			Operationalization of 50 MW LTA from Orange Sirong Wind Power Limited (OSWPPL) to Haryana	WR-NR/Import of NR
4	28th Mar 2019	Whole Month	Operationalization of the following LTAs:- a) Tuticorin - Mytrah Power to UPPCL, Uttar Pradesh - 51.84 MW	WR-NR/Import of NR
			Allocation of 40 MW power from Mouda Stg-II to Assam	ER-NER/Import of NER
5	29th Mar 2019	1st April to 02nd April 2019	Revised due to Shutdown of 400 kV Bongaigaon - Alipurduar D/C and due to change in load - generation balance and charging of new elements (400/220/33 kV 500 MVA ICT-1 replaced 400/220/33 kV, 315 MVA ICT-1 at Misa, 400/220/33 kV, 315 MVA ICT-2 at Bongaigaon , 400/132 kV, 3x40 MVA ICT at Kameng)	ER-NER/NER-ER/Import and Export of NER
		3rd April to 30th April 2019	Revised due to change in load - generation balance and charging of new elements (400/220/33 kV 500 MVA ICT-1 replaced 400/220/33 kV, 315 MVA ICT-1 at Misa, 400/220/33 kV, 315 MVA ICT-2 at Bongaigaon , 400/132 kV, 3x40 MVA ICT at Kameng)	ER-NER/NER-ER/Import and Export of NER

ASSUMPTIONS IN BASECASE					
				Month : April'19	
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	7290	6249	3543	3588
2	Haryana	7873	7139	2583	2583
3	Rajasthan	10474	9250	7473	7473
4	Delhi	5387	4170	612	612
5	Uttar Pradesh	14130	11663	6246	6367
6	Uttarakhand	1784	1304	816	544
7	Himachal Pradesh	1459	970	173	131
8	Jammu & Kashmir	2387	1613	771	761
9	Chandigarh	243	144	0	0
10	ISGS/PPs	30	29	18558	10652
	Total NR	51057	42529	40775	32711
II	EASTERN REGION				
1	Bihar	4534	3290	352	285
2	Jharkhand	994	702	354	229
3	Damodar Valley Corporation	3022	2497	5147	3743
4	Orissa	4128	3314	2371	2471
5	West Bengal	6921	4534	5279	3958
6	Sikkim	107	94	0	0
7	Bhutan	200	198	414	336
8	ISGS/PPs	626	627	11872	8472
	Total ER	20531	15257	25789	19494
III	WESTERN REGION				
1	Maharashtra	20141	17026	16345	14514
2	Gujarat	15838	13877	10402	10095
3	Madhya Pradesh	10831	7721	5491	4520
4	Chattisgarh	4459	3483	2797	2985
5	Daman and Diu	349	297	0	0
6	Dadra and Nagar Haveli	886	722	0	0
7	Goa-WR	625	439	0	0
8	ISGS/PPs	4956	4343	40029	30899
	Total WR	58085	47909	75062	63015

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	8469	7401	6235	4544
2	Telangana	9553	8303	4964	4464
3	Karnataka	9353	6123	7638	5619
4	Tamil Nadu	15346	13709	8538	7138
5	Kerala	4133	2777	1574	716
6	Pondy	327	321	0	0
7	Goa-SR	73	72	0	0
8	ISGS/PPs	0	0	13098	11619
	Total SR	47254	38706	42049	34101
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	66	54	0	0
2	Assam	879	806	195	142
3	Manipur	119	87	0	0
4	Meghalaya	284	213	162	96
5	Mizoram	99	59	64	8
6	Nagaland	81	74	12	6
7	Tripura	209	149	74	74
8	ISGS/PPs	153	83	1326	1151
	Total NER	1890	1525	1833	1477
	Total All India	179317	146360	185946	151169