

National Load Despatch Centre
Total Transfer Capability for December 2019

Issue Date: 30th November 2019

Issue Time: 1100 hrs

Revision No. 4

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 December 2019 to 31st December 2019	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st December 2019 to 03rd December 2019	00-730	14900 13950**	500	14400 13450**	10404 9454**	3996 3996**		Revised due to shutdown of 765kV Agra-Jhatikara line on daily basis.
		730-24	12300 11350**			500	11800 10850**	10404 9454**	
	04th December 2019 to 31st December 2019	00-24	14900 13950**	500	14400 13450**			10404 9454**	
NR-ER*	1st December 2019 to 31st December 2019	00-06	2000	200	1800	193	1607		
		06-18	2000			1800	303	1497	
		18-24	2000			1800	193	1607	
ER-NR*	1st December 2019 to 31st December 2019	00-24	5250	300	4950	4050	900		
W3-ER	1st December 2019 to 31st December 2019	00-24	No limit is being specified.						
ER-W3	1st December 2019 to 31st December 2019	00-24	No limit is being specified.						
WR-SR	1st December 2019 to 31st December 2019	00-05	5550	500	5050	3988	1062		
		05-22	5550				5050	1062	
		22-24	5550				5050	1062	
SR-WR *	1st December 2019 to 31st December 2019	00-24	No limit is being Specified.						
ER-SR	1st December 2019 to 31st December 2019	00-06	4950	250	4700	2748	1952		
		06-18				2833	1867		
		18-24				2748	1952		
SR-ER *	1st December 2019 to 31st December 2019	00-24	No limit is being Specified.						

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ER-NER	1st December 2019 to 31st December 2019	00-17	1550	45	1505	334	1171		
		17-23	1000		955		621		
		23-24	1550		1505		1171		
NER-ER	1st December 2019 to 31st December 2019	00-17	2730	45	2685	0	2685		
		17-23	2460		2415		2415		
		23-24	2730		2685		2685		
W3 zone Injection	1st December 2019 to 31st December 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 - Vindhyaachal 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 December 2019 to 03rd December 2019	00-06	20400	800	19600	14454 13504**	5146		Revised due to shutdown of 765kV Agra-Jhatikara line on daily basis.
			19450**		18650**		5146**		
		06-730	21900		21100		6646		
			20950**		20150**		6646**		
		730-09	18100		17300		2846	-3800	
			17150**		16350**		2846**		
	09-17	16850	16050	1596	-3550				
		15900**	15100**	1596**					
	17-24	16400	15600	1146	-3450				
		15450**	14650**	1146**					
	04th December 2019 to 31st December 2019	00-06	20400	19600	5146				
			19450**	18650**	5146**				
06-09		21900	21100	6646					
		20950**	20150**	6646**					
09-17	20400	19600	5146						
	19450**	18650**	5146**						
17-24	19850	19050	4596						
	18900**	18100**	4596**						
NER	1st December 2019 to 31st December 2019	00-17	1550	1505	6736	1171			
		17-23	1000	955	6821	621			
		23-24	1550	1505	6736	1171			
WR									
SR	1st December 2019 to 31st December 2019	00-06	10500	750	9750	6736	3014		
		06-18	10500		9750	6821	2929		
		18-24	10500		9750	6736	3014		

* 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 December 2019 to 31st December 2019	00-06	4500	700	3800	388	3412		
		06-18			3800	553	3247		
		18-24	4500		3800	388	3412		
NER	1st December 2019 to 31st December 2019	00-17	2730	45	2685	0	2685		
		17-23	2460		2415		2415		
		23-24	2730		2685		2685		
WR									
SR *	1st December 2019 to 31st December 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)

		Applicable Revisions
Corridor	Constraint	
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Bhanpura-Modak	Rev-0 to 4
WR-NR	n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line	Rev-0 to 4
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 4
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 4
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 4
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 4
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 4
ER-NER	a. (n-1) contingency of 400/220 kV, 2x500 MVA ICTs at Misa b. High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev-0 to 2
	a) N-1 contingency of 400 kV Azara-Bongaigaon b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev-03-4
NER-ER	a. N-1 contingency of 400 kV Silchar- Azara Line b. High Loading of 400 kV Bongaigaon-Killing line	Rev-0 to 2
	a) N-1 contingency of 400 kV Silchar- Azara Line b) High Loading in internal Power System of Meghalaya	Rev-0 to 4
W3 zone Injection	---	Rev-0 to 4

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 4
		n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line	Rev-0 to 4
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev-0 to 4
		(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 4
NER	Import	a. (n-1) contingency of 400/220 kV, 2x500 MVA ICTs at Misa b. High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev-0 to 2
		a) N-1 contingency of 400 kV Azara-Bongaigaon b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev-03-4
	Export	a. N-1 contingency of 400 kV Silchar- Azara Line b. High Loading of 400 kV Bongaigaon-Killing line	Rev-0 to 2
		a) N-1 contingency of 400 kV Silchar- Azara Line b) High Loading in internal Power System of Meghalaya	Rev-0 to 4
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 4
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 4
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 4

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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	13th September 2019	Whole Month	Revised considering Load Generation balance and HVDC set points as per present system conditions	WR-NR/Import of NR
2	18th November 2019	Whole Month	Revised STOA margin due to 4.2 MW LTA and 19.76 MW MTOA to Assam from GIWEL	ER-NER/Import of NER
3	29th November 2019	Whole Month	Revised STOA margin due to the following. Operationalization of following LTAs:- a) AGEMPL to UPPCL – 40 MW b) GIWEL_SECI-III_RE to Punjab – 112 MW c) SEISPPL_MP to TPDDL – 90 MW Revision in LTA quantum of following:- a) INOX to UPPCL – 100 MW to 50 MW b) RPL-SECI-II-RE to UPPCL – 34.5 MW to 73.8 MW c) RPL-SECI-II-RE to Punjab – 73.8 MW to 100 MW d) Mahindra - Rewa UMSP to DMRC – 7.75 MW to 33 MW	WR-NR/Import of NR
			Revised STOA margin due to allocation of 100 MW quantum from NTPC-WR to Andhra Pradesh.	WR-SR/Import of SR
			Revision in TTC/ATC due to the following:- a) Non availability of 220 kV Misa-Kopili and 132 kV Khandong- Kopili link. b) Long outage of Kopili and Khandong generation due to bursting of Penstock at Kopili and c) Long Outage of Palatana Module-1 due to rotor earth fault. d) Change in Load-Generation of NER	ER-NER/NER-ER/Import-Export of NER
4	30th November 2019	01st December 2019 to 03rd December 2019	Revised due to shutdown of 765kV Agra-Jhatikara line on daily basis.	WR-NR/Import of NR

ASSUMPTIONS IN BASECASE					
				Month : December'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	7977	6899	4008	3820
2	Haryana	7790	6011	1734	1734
3	Rajasthan	12153	12298	8096	8093
4	Delhi	4983	2942	718	718
5	Uttar Pradesh	14092	13018	6200	6051
6	Uttarakhand	2024	1656	764	398
7	Himachal Pradesh	1531	1094	279	197
8	Jammu & Kashmir	2344	2327	575	542
9	Chandigarh	304	172	0	0
10	ISGS/PPs	27	27	19267	12445
	Total NR	53225	46445	41640	33997
II	EASTERN REGION				
1	Bihar	4897	3256	168	161
2	Jharkhand	1228	949	369	319
3	Damodar Valley Corporation	2800	2851	4652	3775
4	Orissa	4145	2887	2847	2178
5	West Bengal	7399	5531	5024	3823
6	Sikkim	242	298	0	0
7	Bhutan	183	180	336	281
8	ISGS/PPs	641	644	12884	9320
	Total ER	21535	16597	26279	19856
III	WESTERN REGION				
1	Maharashtra	18000	15576	14005	12734
2	Gujarat	14422	14167	8700	10119
3	Madhya Pradesh	13071	10461	5848	5042
4	Chattisgarh	4019	3534	2670	2520
5	Daman and Diu	325	321	0	0
6	Dadra and Nagar Haveli	807	733	0	0
7	Goa-WR	522	463	0	0
8	ISGS/PPs	5119	4604	42069	35989
	Total WR	56284	49859	73293	66404

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	10126	7849	6911	5245
2	Telangana	11656	7173	4899	4314
3	Karnataka	9505	5951	7902	4423
4	Tamil Nadu	14273	11462	6397	5897
5	Kerala	3361	2243	1475	157
6	Pondy	333	309	0	0
7	Goa-SR	65	60	0	0
8	ISGS/IPPs	0	0	18497	12129
	Total SR	49319	35047	46081	32166
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	123	70	0	0
2	Assam	1576	1047	204	176
3	Manipur	223	105	0	0
4	Meghalaya	331	257	144	33
5	Mizoram	99	69	36	28
6	Nagaland	119	79	16	0
7	Tripura	220	139	93	93
8	ISGS/IPPs	138	85	2271	1863
	Total NER	2828	1849	2764	2193
	Total All India	183191	149797	190057	154617