

**National Load Despatch Centre**  
**Total Transfer Capability for December 2019**

Issue Date: 15th December 2019

Issue Time: 1300 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 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 02nd December 2019	00-730	14900	500	14400	10404	3996		
			13950**		13450**	9454**	3996**		
	730-24	12300	500	11800	10404	1396			
		11350**		10850**	9454**	1396**			
	03rd December 2019	00-730	14900	500	14400	10404	3996		
			13950**		13450**	9454**	3996**		
	730-24	14900	500	14400	10404	3996			
		13950**		13450**	9454**	3996**			
	04th December 2019 to 12th December 2019	00-24	14900	500	14400	10404	3996		
			13950**		13450**	9454**	3996**		
	13th December 2019 to 16th December 2019	00-07'	14900	500	14400	10404	3996		
			13950**		13450**	9454**	3996**		
07-24'	13900	500	13400	10404	2996				
	12950**		12450**	9454**	2996**				
17th December 2019 to 31st December 2019	00-24	14900	500	14400	10404	3996			
		13950**		13450**	9454**	3996**			
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 15th December 2019	00-05	5550	500	5050	3988	1062		
		05-22	5550		5050		1062		
		22-24	5550		5050		1062		
	16th December 2019 to 31st December 2019	00-05	5050	500	4550	3988	562	-500	Revised due to forced outage of HVDC Bharawati Block#1 on account of Y-phase converter transformer failure
		05-22	5050		4550		562	-500	
		22-24	5050		4550		562	-500	
SR-WR *	1st December 2019 to 31st December 2019	00-24	No limit is being Specified.						

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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.							
ER-NER	1st December 2019 to 5th December 2019	00-17	1550	45	1505	334	1171			
		17-23	1000		955		621			
		23-24	1550		1505		1171			
	6th December 2019	00-07	1550	45	1505	334	1171			
		07-17	1180		1135		801			
		17-23	750		705		371			
		23-24	1180		1135		801			
	7th 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 5th December 2019	00-17	2730	45	2685	0	2685		
			17-23	2460		2415		2415		
23-24			2730	2685		2685				
6th December 2019		00-07	2730	45	2685	0	2685			
		07-17	2380		2335		2335			
		17-23	2240		2195		2195			
		23-24	2380		2335		2335			
7th December 2019 to 31st December 2019		00-17	2730	45	2685	0	2685			
		17-23	2460		2415		2415			
		23-24	2730		2685		2685			

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<b>W3 zone Injection</b>	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)						
<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) KWPCPL, n)Vandana Vidyut o)RKM, p)GMR Raikhedra, 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 2nd December 2019	00-06	20400	800	19600	14454	5146		
			19450**		18650**		5146**		
		06-730	21900		21100		6646		
			20950**		20150**		6646**		
		730-09	18100		17300		2846		
	17150**		16350**		2846**				
	09-17	16850	16050		1596				
		15900**	15100**		1596**				
	17-24	16400	15600		1146				
		15450**	14650**		1146**				
NR	03rd December 2019	00-06	20400	800	19600	14454	5146		
			19450**		18650**		5146**		
		06-730	21900		21100		6646		
			20950**		20150**		6646**		
		730-09	21900		21100		6646		
	20950**		20150**		6646**				
	09-17	20400	19600		5146				
		19450**	18650**		5146**				
	17-24	19850	19050		4596				
		18900**	18100**		4596**				
NR	04th December 2019 to 12th December 2019	00-06	20400	800	19600	14454	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**						

NR	13th December 2019 to 16th December 2019	00-06	20400	800	19600	14454	5146		
			19450**		18650**		5146**		
		06-07	21900		21100		6646		
			20950**		20150**		6646**		
		07-09	20450		19650		5196		
			19500**		18700**		5196**		
09-17	19050	18250	3796						
	18100**	17300**	3796**						
	17-24	18550	17750	3296					
		17600**	16800**	3296**					
NR	17th December 2019 to 31st December 2019	00-06	20400	800	19600	14454	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 5th December 2019	00-17	1550	45	1505	334	1171		
			17-23		1000		955	621	
		23-24	1550		1505		1171		
	6th December 2019	00-07	1550	45	1505	334	1505		
			07-17		1180		1135	1135	
		17-23	750		705		705		
		23-24	1180		1135		1135		
	7th December 2019 to 31st December 2019	00-17	1550	45	1505	334	1171		
			17-23		1000		955	621	
		23-24	1550		1505		1171		
	WR								
	SR	1st December 2019 to 15th December 2019	00-06	10500	750	9750	6736	3014	
06-18				10500		9750	6821	2929	
18-24			10500	9750		6736	3014		
16th December 2019 to 31st December 2019		00-06	10000	750	9250	6736	2514	-500	Revised due to forced outage of HVDC Bharawati Block#1 on account of Y-phase converter transformer failure
			06-18		10000	9250	6821	2429	
		18-24	10000		9250	6736	2514	-500	

\* 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 5th December 2019	00-17	2730	45	2685	0	2685			
		17-23	2460		2415		2415			
		23-24	2730		2685		2685			
	6th December 2019	00-07	2730	45	2685	0	2685			
		07-17	2380		2335		2335			
		17-23	2240		2195		2195			
		23-24	2380		2335		2335			
	7th 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)

Corridor	Constraint	Applicable Revisions
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Bhanpura-Modak	Rev-0 to 8
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 8
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 8
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 8
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 8
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 8
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 8
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 3 to 5,7,8
	N-1 contingency of 400 kV Byrnihat - Bongaigaon will lead to high Loading of 220 kV Samaguri - Sonabil line	Rev-6
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-3 to 5,7,8
	N-1 contingency of 400 kV Byrnihat - Bongaigaon will lead to high Loading of 220 kV Samaguri - Sonabil line	Rev-6
W3 zone Injection	---	Rev-0 to 8

### 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 8
		n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line	Rev-0 to 8
	Export	(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	Rev-0 to 8
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 3 to 5,7,8
		N-1 contingency of 400 kV Byrnihat - Bongaigaon will lead to high Loading of 220 kV Samaguri - Sonabil line	Rev-6
	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-3 to 5,7,8	
N-1 contingency of 400 kV Byrnihat - Bongaigaon will lead to high Loading of 220 kV Samaguri - Sonabil line		Rev-6	
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 8
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 8
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 8



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Total Transfer Capability for December 2019**

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.  <b>Operationalization of following LTAs:-</b>  a) AGEMPL to UPPCL – 40 MW b) GIWEL_SECI-III_RE to Punjab – 112 MW c) SEISPL_MP to TPDDL – 90 MW  <b>Revision in LTA quantum of following:-</b>  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
5	02nd December 2019	03rd December 2019	Revised due to non-availing shutdown of 765 kV Agra-Jhatikara line	WR-NR/Import of NR
6	5th December 2019	6th Dec 2019	Revised due to Shutdown of 400 kV Bongaigaon - Azara S/C for preventive maintenance related activities	ER-NER/NER-ER/Import-Export of NER
7	12th December 2019	13th December 2019 to 16th December 2019	Revised due to shutdown of HVDC Mundra-Mohindergarh Pole-2	WR-NR/Import of NR
8	15th December 2019	16th December 2019 to 31st December 2019	Revised due to forced outage of HVDC Bharawati Block#1 on account of Y-phase converter transformer failure	WR-SR/Import of SR

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