

National Load Despatch Centre
Total Transfer Capability for November 2019

Issue Date: 25th November 2019

Issue Time: 1800 hrs

Revision No. 7

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 November 2019 to 30th November 2019	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st November 2019 to 26th November 2019	00-24	14900	500	14400	10067	4333		
			13950**		13450**	9117**	4333**		
	27th November 2019 to 28th November 2019	00-830'	14900	500	14400	10067	4333		
		830-24'	14100		13600	10067	3533	-800	
	29th November 2019 to 30th November 2019	00-24	14900	500	14400	10067	4333		
			13950**		13450**	9117**	4333**		
NR-ER*	1st November 2019 to 30th November 2019	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st November 2019 to 30th November 2019	00-24	5250	300	4950	4050	900		
W3-ER	1st November 2019 to 30th November 2019	00-24	No limit is being specified.						
ER-W3	1st November 2019 to 30th November 2019	00-24	No limit is being specified.						
WR-SR	1st November 2019 to 21st November 2019	00-05	5550	500	5050	3888	1162		
		05-22	5550		5050		1162		
		22-24	5550		5050		1162		
	22nd November 2019 to 23rd November 2019	00-05	5050	500	4550	3888	662		
		05-22	5050		4550		662		
		22-24	5050		4550		662		
	24th November 2019 to 30th November 2019	00-05	5550	500	5050	3888	1162		
		05-22	5550		5050		1162		
		22-24	5550		5050		1162		
SR-WR *	1st November 2019 to 30th November 2019	00-24	No limit is being Specified.						

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ER-SR	1st November 2019 to 30th November 2019	00-06	4950	250	4700	2748	1952			
		06-18				2833	1867			
		18-24				2748	1952			
SR-ER *	1st November 2019 to 30th November 2019	00-24	No limit is being Specified.							
ER-NER	1st November 2019 to 30th November 2019	00-17	1370	45	1325	334	991			
		17-23	1030		985		651			
		23-24	1370		1325		991			
NER-ER	1st November 2019 to 9th November 2019	00-17	2400	45	2355	0	2355			
		17-23	2450		2405		2405			
		23-24	2400		2355		2355			
	10th November 2019	00-08	2400	45	2355	0	2355			
		08-17	1840		1795		1795			
		17-23	1750		1705		1705			
		23-24	1840		1795		1795			
	11th November 2019 to 30th November 2019	00-17	2400	45	2355	0	2355			
		17-23	2450		2405		2405			
		23-24	2400		2355		2355			
	W3 zone Injection	1st November 2019 to 30th November 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) 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.

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 November 2019 to 26th November 2019	00-06	20400	800	19600	14117 13167**	5483		
			19450**		18650**		5483**		
		06-09	21900		21100		6983		
			20950**		20150**		6983**		
		09-17	20400		19600		5483		
19450**	18650**		5483**						
17-24	19850	19050	4933						
	18900**	18100**	4933**						
NR	27th November 2019 to 28th November 2019	00-06	20400	800	19600	14117 13167**	5483		Revised due to shutdown of 765kV Phagi-Gwalior-1
			19450**		18650**		5483**		
		06-830	21900		21100		6983		
			20950**		20150**		6983**		
		830-09	20750		19950		5833		
			19800**		19000**		5833**	-1150	
09-17	19300	18500	4383						
	18350**	17550**	4383**	-1100					
17-24	18800	18000	3883						
	17850**	17050**	3883**	-1050					
NR	29th November 2019 to 30th November 2019	00-06	20400	800	19600	14117 13167**	5483		
			19450**		18650**		5483**		
		06-09	21900		21100		6983		
			20950**		20150**		6983**		
		09-17	20400		19600		5483		
19450**	18650**		5483**						
17-24	19850	19050	4933						
	18900**	18100**	4933**						
NER	1st November 2019 to 30th November 2019	00-17	1370	45	1325	334	991		
		17-23	1030		985		651		
		23-24	1370		1325		991		
WR									
	1st November 2019 to 21st November 2019	00-06	10500	750	9750	6636	3114		
		06-18	10500		9750	6721	3029		
		18-24	10500		9750	6636	3114		

SR	22nd November 2019 to 23rd November 2019	00-06	10000	750	9250	6636	2614	
		06-18	10000		9250	6721	2529	
		18-24	10000		9250	6636	2614	
	24th November 2019 to 30th November 2019	00-06	10500	750	9750	6636	3114	
		06-18	10500		9750	6721	3029	
		18-24	10500		9750	6636	3114	

* 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 November 2019 to 30th November 2019	00-06	4500	700	3800	388	3412			
		06-18			3800	553	3247			
		18-24	4500		3800	388	3412			
NER	1st November 2019 to 9th November 2019	00-17	2400	45	2355	0	2355			
		17-23	2450		2405		2405			
		23-24	2400		2355		2355			
	10th November 2019	00-08	2400	45	2355	0	2355			
		08-17	1840		1795		1795			
		17-23	1750		1705		1705			
		23-24	1840		1795		1795			
	11th November 2019 to 30th November 2019	00-17	2400	45	2355	0	2355			
		17-23	2450		2405		2405			
		23-24	2400		2355		2355			
	WR									
SR *	1st November 2019 to 30th November 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 7
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 7
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 7
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 7
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 7
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 7
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 7
ER-NER	a. (n-1) contingency of 400/220 kV, 2x500 MVA ICTs at Misa will lead to high loading of 220 kV Balipara-Sonabil line (200 MW)	Rev-0 to 2
	a. N-1 contingency of 400 kV Bongaigaon- Azara line will lead to high Loading of 220 kV Salakati-BTPS D/C(200 MW)	Rev- 3 to 7
NER-ER	(n-1) contingency of 400/220 kV, 2x500 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 2
	N-1 contingency of 400 kV Silchar-Azara line will lead to high Loading of 400 kV Killing-Bongaigaon line.	Rev-3
	N-1 contingency of 400 kV Bongaigaon- Alipurduar circuit I will lead to high Loading of 220 kV Salakati-Alipurduar D/C	Rev-4-7
W3 zone Injection	---	Rev-0 to 7

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 7
		n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line	Rev-0 to 7
NER	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev-0 to 7
		(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 7
	Import	a. (n-1) contingency of 400/220 kV, 2x500 MVA ICTs at Misa will lead to high loading of 220 kV Balipara-Sonabil line(200 MW)	Rev-0 to 2
		a. N-1 contingency of 400 kV Bongaigaon- Azara line will lead to high Loading of 220 kV Salakati-BTPS D/C(200 MW)	Rev- 3 to 7
Export	(n-1) contingency of 400/220 kV, 2x500 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 2	
	N-1 contingency of 400 kV Silchar-Azara line will lead to high Loading of 400 kV Killing-Bongaigaon line.	Rev-3	
	N-1 contingency of 400 kV Bongaigaon- Alipurduar circuit I will lead to high Loading of 220 kV Salakati-Alipurduar D/C	Rev-4-7	
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 7
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 7
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 7

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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	28th August 2019	Whole Month	Revised STOA margin due to the following:- a) Revision in LTA quantum from RPL-SECI-II to Punjab- from 47.2 MW to 50.4 MW b) Revision in LTA quantum from RPL-SECI-II to UPPCL- from 47.2 MW to 50.4 MW	WR-NR / NR Import
			Revised STOA margin due to operationalization of 65 MW LTA from NPGC to UP	ER-NR/ NR Import
			Revised STOA margin due to completion of 14 MW MTOA from NSPCL to SAIL (Salem), TN	WR-SR/Import of SR
2	13th September 2019	Whole Month	Revised considering Load Generation balance and HVDC set points as per present system conditions	WR-NR/Import of NR
3	29th October 2019	Whole Month	Revised TTC due to following: (i) Long outage of Kopili and Khandong generation because of bursting of Penstock at Kopili (ii) Long Outage of Palatana Module-1 due to rotor earth fault. (iii) Non availability of 220 kV Misa-Kopili and 132 kV Khandong- Kopili link.	NER-ER//Export of NER
			(a) Revised TTC due to change in LGBR and (b) revised STOA margin due to 4.2 MW LTA and 19.76 MW MTOA to Assam from GIWEL	ER-NER/Import of NER
4	8th November 2019	10th November	TTC/ATC revised due to shutdown of 400 kV Bongaigaon - New Siliguri D/C for stringing works of under construction 400kV second Alipurduar-Binaguri line	NER-ER//Export of NER
5	21st November 2019	22nd November to 30th November 2019	Revised due to forced outage and frequent tripping of HVDC Block-1 at Bhadravathi	WR-SR/Import of SR
6	23rd November 2019	24th November to 30th November 2019	Revised due to restoration of Bhadravathi HVDC Block-1.	WR-SR/Import of SR
7	25th November 2019	27th November to 28th November 2019	Revised due to shutdown of 765kV Phagi-Gwalior-1	WR-NR/Import of NR

ASSUMPTIONS IN BASECASE					
				Month : November'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	7875	5192	4226	4000
2	Haryana	7646	4763	1734	1734
3	Rajasthan	11378	11032	7073	7012
4	Delhi	4481	2498	799	799
5	Uttar Pradesh	13818	13077	6140	6161
6	Uttarakhand	2129	1572	912	600
7	Himachal Pradesh	1772	1243	323	235
8	Jammu & Kashmir	2302	1938	568	507
9	Chandigarh	243	131	0	0
10	ISGS/IPPs	27	26	19237	10332
	Total NR	51671	41473	41011	31379
II	EASTERN REGION				
1	Bihar	4871	3078	168	161
2	Jharkhand	1221	892	369	319
3	Damodar Valley Corporation	2784	2680	4652	3775
4	Orissa	4122	2714	2847	2178
5	West Bengal	7585	5552	5024	3823
6	Sikkim	240	280	0	0
7	Bhutan	185	177	336	281
8	ISGS/IPPs	639	646	12884	9296
	Total ER	21648	16020	26279	19832
III	WESTERN REGION				
1	Maharashtra	20019	13925	14607	10403
2	Gujarat	15146	11884	9281	9100
3	Madhya Pradesh	12770	9774	5641	4518
4	Chattisgarh	4311	2747	2682	2466
5	Daman and Diu	337	236	0	0
6	Dadra and Nagar Haveli	824	565	0	0
7	Goa-WR	584	363	0	0
8	ISGS/IPPs	5450	4364	44276	34265
	Total WR	59439	43858	76486	60753

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	10285	7851	6911	5245
2	Telangana	11764	10518	4899	4549
3	Karnataka	9649	5970	7902	4265
4	Tamil Nadu	14497	12094	6397	5697
5	Kerala	3819	2181	1475	213
6	Pondy	338	310	0	0
7	Goa-SR	66	61	0	0
8	ISGS/IPPs	0	0	18497	12129
	Total SR	50420	38984	46081	32098
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	123	66	0	0
2	Assam	1792	1127	204	176
3	Manipur	197	91	0	0
4	Meghalaya	317	241	144	82
5	Mizoram	99	65	38	33
6	Nagaland	117	74	16	6
7	Tripura	278	164	99	99
8	ISGS/IPPs	104	61	2388	1867
	Total NER	3026	1889	2889	2263
	Total All India	186204	142224	192746	146325