

National Load Despatch Centre
Total Transfer Capability for October 2019

Issue Date: 30th September 2019

Issue Time: 1200 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 October 2019 to 31st October 2019	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st October 2019 to 31st October 2019	00-24	14900	500	14400	10067	4333		
			13950**		13450**	9117**	4333**		
NR-ER*	1st October 2019 to 31st October 2019	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st October 2019 to 31st October 2019	00-24	5250	300	4950	4050	900		
W3-ER	1st October 2019 to 31st October 2019	00-24	No limit is being specified.						
ER-W3	1st October 2019 to 31st October 2019	00-24	No limit is being specified.						
WR-SR	1st October 2019 to 31st October 2019	00-05	5550	500	5050	3888	1162		
		05-22	5550		5050		1162		
		22-24	5550		5050		1162		
SR-WR *	1st October 2019 to 31st October 2019	00-24	No limit is being Specified.						
ER-SR	1st October 2019 to 31st October 2019	00-06	4950	250	4700	2748	1952		
		06-18				2833	1867		
		18-24				2748	1952		
SR-ER *	1st October 2019 to 31st October 2019	00-24	No limit is being Specified.						

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ER-NER	1st October 2019	00-08	1200	45	1155	310	845	40	Revision in TTC/ATC due to the following:- a) Shutdown of 400 kV Bongaigaon - Byrnihat TL b) Change in load - generation balance in NER
		08-17	980		935		625	-180	
		17-23	830		785		475	-90	
		23-24	980		935		625	-180	
ER-NER	2nd October 2019 to 31st October 2019	00-17	1200	45	1155	310	845	40	Revision in TTC/ATC due to change in load - generation balance in NER
		17-23	1080		1035		725	160	
		23-24	1200		1155		845	40	
NER-ER	1st October	00-08	2900	45	2855	0	2855	-90	Revision in TTC/ATC due to the following:- a) Shutdown of 400 kV Bongaigaon - Byrnihat TL b) Change in load - generation balance in NER
		08-17	2250		2205		2205	-740	
		17-23	2300		2255		2255	-750	
		23-24	2250		2205		2205	-740	
NER-ER	2nd October 2019 to 31st October 2019	00-17	2900	45	2855	0	2855	-90	Revision in TTC/ATC due to change in load - generation balance in NER
		17-23	2870		2825		2825	-180	
		23-24	2900		2855		2855	-90	

W3 zone Injection	1st October 2019 to 31st October 2019	00-24	No limit is being specified (In case of any constraints appearing in the system, W3 zone export would be revised accordingly)						
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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 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 October 2019 to 31st October 2019	00-06	20400 19450**	800	19600 18650**	14117 13167**	5483 5483**		
		06-09	21900 20950**		21100 20150**		6983 6983**		
		09-17	20400 19450**		19600 18650**		5483 5483**		
		17-24	19850 18900**		19050 18100**		4933 4933**		
NER	1st October 2019	00-08	1200	45	1155	310	845	40	Revision in TTC/ATC due to the following:- a) Shutdown of 400 kV Bongaigaon - Byrnihat TL b) Change in load - generation balance in NER
		08-17	980		935		625	-180	
		17-23	830		785		475	-90	
		23-24	980		935		625	-180	
	2nd October 2019 to 31st October 2019	00-17	1200	45	1155	310	845	40	Revision in TTC/ATC due to change in load - generation balance in NER
		17-23	1080		1035		725	160	
23-24		1200	1155		845		40		
WR									
SR	1st October 2019 to 31st October 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 October 2019 to 31st October 2019	00-06	4500	700	3800	388	3412		
		06-18			3800	553	3247		
		18-24	4500		3800	388	3412		
NER	1st October 2019	00-08	2900	45	2855	0	2855	-90	Revision in TTC/ATC due to the following:- a) Shutdown of 400 kV Bongaigaon - Byrnihat TL b) Change in load - generation balance in NER
		08-17	2250		2205		2205	-740	
		17-23	2300		2255		2255	-750	
		23-24	2250		2205		2205	-740	
	2nd October 2019 to 31st October 2019	00-17	2900	45	2855	0	2855	-90	Revision in TTC/ATC due to change in load - generation balance in NER
		17-23	2870		2825		2825	-180	
		23-24	2900		2855		2855	-90	
WR									
SR *	1st October 2019 to 31st October 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 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 kV Bongaigaon-Azara line b. High loading of 220 kV Balipara-Sonabil line (200 MW)	Rev-0 to 3
	a) N-1 contingency of 400 kV Bongaigaon- Azara line b) High Loading of 220 kV Salakati-BTPS D/C (200 MW)	Rev-4
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 3
	a) N-1 contingency of 400 kV Silchar-Azara line b) High Loading of 400 kV Killing-Bongaigaon line	Rev-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	
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 3
		a) N-1 contingency of 400 kV Bongaigaon- Azara line b) High Loading of 220 kV Salakati-BTPS D/C (200 MW)	Rev-04
	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 3
		a) N-1 contingency of 400 kV Silchar-Azara line b) High Loading of 400 kV Killing-Bongaigaon line	Rev-04
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	28th July 2019	Whole Month	A) Revision in TTC/ATC due to commissioning of 765 kV Banaskantha – Chittorgarh – Ajmer – Bikaner corridor. B) Revised STOA margin due to the following:- a) Revision in LTA quantum from RPL-SECI-II to Punjab- from 41.6 MW to 47.2 MW b) Revision in LTA quantum from RPL-SECI-II to UPPCL- from 41.6 MW to 47.2 MW c) Revision in LTA quantum from MAHINDRA RUMS to DMRC- from 7.75 MW to 7.8 MW d) Operationalization of 49 MW MTOA from GIWEL-SECI-III to Punjab e) Revision in LTA quantum from KSK Mahanadi to UPPCL from 820 MW to 1000 MW	WR-NR/Import of NR
			Revision in LTA quantum from KSK Mahanadi to TN from 440 MW to 500 MW	WR-SR/Import of SR
2	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
3	13th September 2019	Whole Month	Revised considering Load Generation balance and HVDC set points as per present system conditions	WR-NR/Import of NR
4	30th September 2019	01st Oct'19	a) Shutdown of 400 kV Bongaigaon - Byrnihat TL b) Change in load - generation balance in NER	ER-NER/NER-ER corridor & Import/Export of NER
		02nd Oct'19 to 31st Oct'19	Change in load - generation balance in NER	

ASSUMPTIONS IN BASECASE					
				Month : October'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	7855	6512	3513	3307
2	Haryana	7223	6505	1734	1734
3	Rajasthan	10860	10903	6767	6764
4	Delhi	5246	3634	799	799
5	Uttar Pradesh	13788	11698	6713	7060
6	Uttarakhand	1941	1383	951	849
7	Himachal Pradesh	1623	1209	497	356
8	Jammu & Kashmir	2051	1501	590	629
9	Chandigarh	305	165	0	0
10	ISGS/PPs	28	28	17584	10365
	Total NR	50920	43537	39148	31863
II	EASTERN REGION				
1	Bihar	4979	3175	168	168
2	Jharkhand	1377	905	409	324
3	Damodar Valley Corporation	2844	2689	5347	3710
4	Orissa	4413	3112	3516	2141
5	West Bengal	8518	6236	5614	4638
6	Sikkim	103	87	0	0
7	Bhutan	190	189	676	766
8	ISGS/PPs	635	635	12570	9765
	Total ER	23058	17028	28299	21512
III	WESTERN REGION				
1	Maharashtra	20683	16735	14361	11577
2	Gujarat	16854	14057	11442	8683
3	Madhya Pradesh	10995	8125	5719	3379
4	Chattisgarh	4318	4068	2149	2165
5	Daman and Diu	342	302	0	0
6	Dadra and Nagar Haveli	826	748	0	0
7	Goa-WR	524	334	0	0
8	ISGS/PPs	4616	4046	42570	39201
	Total WR	59159	48415	76240	65006

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	10055	7955	6301	5245
2	Telangana	10628	10934	5764	4825
3	Karnataka	9008	4723	7412	4462
4	Tamil Nadu	14709	12420	7497	5898
5	Kerala	3339	2238	1527	354
6	Pondy	346	331	0	0
7	Goa-SR	68	65	0	0
8	ISGS/IPPs	0	0	15553	12129
	Total SR	48151	38664	44055	32913
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	140	65	0	0
2	Assam	1785	1314	255	192
3	Manipur	192	93	0	0
4	Meghalaya	279	206	259	212
5	Mizoram	99	67	44	43
6	Nagaland	123	77	22	12
7	Tripura	304	191	97	95
8	ISGS/IPPs	113	71	2475	2139
	Total NER	3036	2085	3152	2693
	Total All India	184324	149729	190893	153986