# National Load Despatch Centre Total Transfer Capability for November 2018

Issue Date: 31st October 2018 Issue Time: 1230 hrs Revision No. 1

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
	1st November	00-06				195	1805		Revised STOA margins considering
NR-WR*	2018 to 30th November 2018	06-18	2500	500	2000	250	1750		55 MW LTA/allocation from Solar which is not available during night
	November 2018	18-24				195	1805		hours
WR-NR*	1st November 2018 to 5th November 2018	00-24	12250 11775**	500	11750 11275**	8610 8135**	3140 3140**		(a) Revised STOA margin due to outage of Rihand-III #1 on account of AMP work (b) Revised TTC due to change in load generation balance and network conditions and change in pattern of inter-regional flow towards NR
	6th November 2018 to 30th November 2018	00-24	12250 11300**	500	11750 10800**	9085 8135**	2665 2665**	250	(a) Revised TTC due to change in load generation balance and network conditions and change in pattern of inter-regional flow towards NR
	1st November	00-06	2000		1800	193	1607	1	
NR-ER*	2018 to 30th November 2018	06-18 18-24	2000 2000	200	1800 1800	303 193	1497 1607		
ER-NR*	1st November 2018 to 30th November 2018	00-24	5250	300	4950	3892	1058		Revised STOA margins due to (a) change in LTA from BRBCL to Northern railways (UP) (b) Relinquisment of MTOA from JITPL to Northern Railways (UP)
W3-ER	1st November 2018 to 30th November 2018	00-24				No limit i	is being specified.		
ER-W3	1st November 2018 to 30th November 2018	00-24				No limit i	is being specified.		
	1st November	00-630	5150		4650		115		Revised due to shutdwon of 765kV
	2018	630-24	4450	500	3950	4535	0	-700	Wardha-Nizamabad-2 line
	2nd November	00-930	5150		4650		115		Revised due to shutdwon of 765kV
WR-SR	2018	930-24	4900	500	4400	4535	0	-250	Nizamabad-Maheswaram-2 line
	3rd November 2018 to 30th November 2018	00-24	5150	500	4650	4535	115		
SR-WR*	1st November 2018 to 30th November 2018	00-24				No limit i	s being Specified.		

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	1st November	00-06				2762	1338		
ER-SR	2018 to 30th	06-18	4350	250	4100	2847	1253		
	November 2018	18-24				2762	1338	-	
SR-ER *	1st November 2018 to 30th November 2018	00-24				No limit i	s being Specified.		
	1st November	00-17	1320		1275		1050		
ER-NER	2018 to 30th	17-23	1040	45	995	225	770		
	November 2018	23-24	1320		1275		1050		
	1st November	00-17	1620		1575		1575		
NER-ER	2018 to 30th	17-23	1890	45	1845	0	1845		
	November 2018	23-24	1620		1575		1575		
W3 zone Injection	1st November 2018 to 30th November 2018								oort would be revised accordingly)  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).

- 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, 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) KWPCL, 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 commissionned 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.

<sup>\*\*</sup>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.

### **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									
		00-05	16350 15875**		15550 15075**		3048 3048**	-750	(a) Revised STOA margins due to: (i) change in LTA from
		05-18	17500 17025**	800	16700		4198 4198**	400	BRBCL to Northern railways (UP) (ii) Relinquisment of MTOA
	1st November 2018 to 5th		1/025**		16225**	12502	3048		from JITPL to Northern Railways (UP
	November 2018	18-23   15875**			15075**	12027**	3048**	950	(iii) outage of Rihand-III #1 on account of AMP work (b) Revised TTC due to
		22.24	16350		15550		3048	750	change in load generation balance and network conditions and change in pattern of inter-regional flow towards NR
NR		23-24	15875**		15075**		3048**		
		00-05	16350		15550		2573	-750	(a) Revised STOA margins due to
			15400**		14600**		2573**		(i) change in LTA from BRBCL to Northern railways
		05-18	17500	800	16700	12977	3723	400	(UP)
	6th November		16550**		15750**	12027**	3723**		(ii) Relinquisment of MTOA from JITPL to Northern
	2018 to 30th November 2018	18-23	16350		15550		2573		Railways (UP)
		18-23	15400**		14600**		2573**	950	(b) Revised TTC due to change in load generation
		23-24	16350		15550		2598		balance and network conditions and change in
		23-24	15400**		14600**		2598**	-730	pattern of inter-regional flow towards NR
NIED	1st November	00-17	1320	45	1275	225	1050		
NER	2018 to 30th November 2018	17-23 23-24	1040 1320	45	995 1275	225	770 1050		
WR									

		00-06	9500		8750	7297	1453		
	1st November	06-630	9500	750	8750	7382	1368		Revised due to shutdwon of 765kV Wardha-Nizamabad-2
	2018	630-18	8800	730	8050	7382	668	-700	line
		18-24	8800		8050	7297	753	-700	
		00-06	9500	750	8750	7297	1453		
SR	2nd November	06-930	9500		8750	7382	1368		Revised due to shutdwon of 765kV Nizamabad-
	2018	930-18	9250		8500	7382	1118	-250	Maheswaram-2 line
		18-24	9250		8500	7297	1203	-230	
	3rd November 2018 to 30th November 2018	00-06	9500	750	8750	7297	1453		
		06-18	9500		8750	7382	1368		
		18-24	9500		8750	7297	1453		

<sup>\*</sup> 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).

Margin in Simultaneous import of NR = A

WR-NR ATC =B

ER-NRATC = C

Margin for WR-NR applicants = A \* B/(B+C)

Margin for ER-NR Applicants = A \* C/(B+C)

<sup>\*\*</sup>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.

<sup>\*</sup> 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:

### **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
	1st November	00-06	4500		3800	388	3412		Revised STOA margins considering 55 MW
NR*	2018 to 30th November 2018	06-18		700	3800	553	3247		LTA/allocation from Solar which is not available during night hours
	November 2018	18-24	4500		3800	388	3412		
	1st November	00-17	1620		1575		1575		
NER	2018 to 30th	17-23	1890	45	1845	0	1845		
	November 2018	23-24	1620		1575		1575		
WR									
***									
SR *	1st November 2018 to 30th November 2018	00-24				No limit is be	ing Specified.		

<sup>\*</sup> 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)**

	Constraints (Corridor Wise)	<b>Applicable Revisions</b>
Corridor	Constraint	
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak	Rev-0-1
WR-NR	(n-1) Contingnecy of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.  Frequent tripping of HVDC Champa - Kurukshetra poles	Rev- 0-1 Rev-0-1
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0-1
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-0-1
WR-SR and ER-	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0-1
	Low Voltage at Gazuwaka (East) Bus.	Rev-0-1
	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-0-1
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0-1
W3 zone Injection		Rev-0-1

## **Limiting Constraints (Simultaneous)**

			Applicable Revisions
	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-0-1
NR		(n-1) Contingnecy of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0-1
		Frequent tripping of HVDC Champa - Kurukshetra poles	Rev-0-1
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev-0-1
	Export	(n-1) contingency of 400 kV Saranath-Pusauli	Rev 0 1
NER	Import	<ul><li>a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa</li><li>b. High loading of 220 kV Balipara-Sonabil line(200 MW)</li></ul>	Rev-0-1
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0-1
SR	Import	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0-1
SK .	import	Low Voltage at Gazuwaka (East) Bus.	Rev-0-1

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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
		01st November 18	Revised due to shutdwon of 765kV Wardha-Nizamabad-2 line	WR-SR/SR
		02nd November 18	Revised due to shutdwon of 765kV Nizamabad- Maheswaram-2 line	Import
			Revised STOA margins considering 55 MW LTA/allocation from Solar which is not available during night hours	NR- WR/Export of NR
1	1 31st October 2018	Whole Month	Revised STOA margins due to (a) change in LTA from BRBCL to Northern railways (UP) (b) Relinquisment of MTOA from JITPL to Northern Railways (UP)	ER- NR/Import of NR
			Revised due to change in load generation balance and network conditions and change in pattern of inter-regional flow towards NR	WR- NR/Import of NR
		1st Nov to 5th Nov 2018	Revised STOA margin due to outage of Rihand-III #1 on account of AMP work	WR- NR/Import of NR

ASSUM	IPTIONS IN BASECASE				
			N	/lonth : November'1	18
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	10175	4396	5400	4359
2	Haryana	8175	5351	2445	2002
3	Rajasthan	9622	12045	5693	6935
4	Delhi	5939	2568	1099	1266
5	Uttar Pradesh	15505	14154	9367	7242
6	Uttarakhand	2232	1347	1189	540
7	Himachal Pradesh	1509	629	1028	160
8	Jammu & Kashmir	2368	884	708	152
9	Chandigarh	332	117	0	0
10	ISGS/IPPs	24	56	19834	8850
	Total NR	55882	41547	46764	31507
П	EASTERN REGION				
1	Bihar	4184	2318	310	170
2	Jharkhand	1187	771	364	215
3	Damodar Valley Corporation	2915	2651	5294	3861
4	Orissa	4090	2874	2539	1972
5	West Bengal	8580	5123	5360	4357
6	Sikkim	84	79	0	0
7	Bhutan	211	216	1592	534
8	ISGS/IPPs	266	259	11400	8320
	Total ER	21517	14291	26859	19428
Ш	WESTERN REGION				
1	Maharashtra	17589	13426	13337	8562
2	Gujarat	15434	11514	8167	8072
3	Madhya Pradesh	10267	9187	4753	4821
4	Chattisgarh	4217	2817	2527	2152
5	Daman and Diu	339	273	0	0
6	Dadra and Nagar Haveli	807	713	0	0
7	Goa-WR	538	337	0	0
8	ISGS/IPPs	4299	3587	39544	30019
	Total WR	53490	41854	68326	53625

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	8899	6252	6724	4534
2	Telangana	10437	7449	5619	3806
3	Karnataka	8701	4475	6370	4543
4	Tamil Nadu	14253	11312	8893	5818
5	Kerala	3788	2263	1573	242
6	Pondy	372	382	0	0
7	Goa-SR	84	86	0	0
8	ISGS/IPPs	0	0	11366	10353
	Total SR	46533	32219	40545	29297
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	131	83	0	0
2	Assam	1512	1082	318	162
3	Manipur	175	95	0	0
4	Meghalaya	271	235	301	91
5	Mizoram	100	68	8	8
6	Nagaland	127	78	22	12
7	Tripura	222	138	59	74
8	ISGS/IPPs	172	84	1940	1473
	Total NER	2710	1862	2648	1820
	Total All India	180571	132162	186841	136247