

National Load Despatch Centre
Total Transfer Capability for December 2018

Issue Date: 26th November 2018

Issue Time: 1600 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
NR-WR*	1st December 2018 to 31st December 2018	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st December 2018 to 31st December 2018	00-24	12250	500	11750	9255	2495	250	(i) Revised TTC due to change in (a) load generation balance and network conditions and (b) change in pattern of inter-regional flow towards NR (ii) Revised STOA margins due to operationalization of : (a) 50 MW LTA from Green Infra Energy Limited to Delhi, (b) 99.9 MW LTA from Green Infra Energy Limited to UP (c) 20 MW LTA from OKWPL to UP discom
			11300**		10800**	8305**	2495**		
NR-ER*	1st December 2018 to 31st December 2018	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st December 2018 to 31st December 2018	00-24	5250	300	4950	3867	1083		
W3-ER	1st December 2018 to 31st December 2018	00-24	No limit is being specified.						
ER-W3	1st December 2018 to 31st December 2018	00-24	No limit is being specified.						
WR-SR	1st December 2018 to 31st December 2018	00-05	5200	500	4700	4535	165	50	Revised considering recent commissioning of 765 kV Jharsuguda - Dharamjaygarh 3&4, 765 kV Gadarwara - Warora PS D/C, 765 kV Warora PS - Parli D/C, LILO of Kurnool - Thirvualam D/C at Cuddapah, 400 kV Cuddapah-Hindupur D/C, Salem PS - Madhugiri PS S/C, 765 kV Dharamjaygarh - Champa S/C, 765 kV Champa-Raigarh S/C and 765 kV Sipat-Bilaspur ckt-3 and some other 400 kV lines
		05-22	5200		4700		165	50	
		22-24	5200		4700		165	50	
SR-WR *	1st December 2018 to 31st December 2018	00-24	No limit is being Specified.						

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ER-SR	1st December 2018 to 31st December 2018	00-06	4800	250	4550	2762	1788	450	Revised considering recent commissioning of 765 kV Jharsuguda - Dharamjaygarh 3&4, 765 kV Gadarwara - Warora PS D/C, 765 kV Warora PS - Parli D/C, LILO of Kurnool - Thirvualam D/C at Cuddapah, 400 kV Cuddapah-Hindupur D/C, Salem PS - Madhugiri PS S/C, 765 kV Dharamjaigarh - Champa S/C, 765 kV Champa-Raigarh S/C and 765 kV Sipat-Bilaspur ckt-3 and some other 400 kV lines		
		06-18								2847	1703
		18-24								2762	1788
SR-ER *	1st December 2018 to 31st December 2018	00-24	No limit is being Specified.								
ER-NER	1st December 2018 to 31st December 2018	00-17	1350	45	1305	225	1080				
		17-23	1060		1015		790				
		23-24	1350		1305		1080				
NER-ER	1st December 2018 to 31st December 2018	00-17	1880	45	1835	0	1835				
		17-23	2070		2025		2025				
		23-24	1880		1835		1835				
W3 zone Injection	1st December 2018 to 31st December 2018	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 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 2018 to 31st December 2018	00-05	16350 15400**	800	15550 14600**	13147 12197**	2403 2403**	-750	(i) Revised TTC due to change in (a) load generation balance and network conditions and (b) change in pattern of inter-regional flow towards NR (ii) Revised STOA margins due to operationalization of : (a) 50 MW LTA from Green Infra Energy Limited to Delhi, (b) 99.9 MW LTA from Green Infra Energy Limited to UP (c) 20 MW LTA from OKWPL to UP discom
		05-18	17500 16550**		16700 15750**		3553 3553**	400	
		18-23	16350 15400**		15550 14600**		2403 2403**	950	
		23-24	16350 15400**		15550 14600**		2403 2403**	-750	
NER	1st December 2018 to 31st December 2018	00-17	1350	45	1305	225	1080		
		17-23	1060		1015		790		
		23-24	1350		1305		1080		
WR									
SR	1st December 2018 to 31st December 2018	06-18	10000	750	9250	7297	1953	500	Revised considering recent commissioning of 765 kV Jharsuguda - Dharamjaygarh 3&4, 765 kV Gadawara - Warora PS D/C, 765 kV Warora PS - Parli D/C, LILO of Kurnool - Thirvualam D/C at Cuddapah, 400 kV Cuddapah-Hindupur D/C, Salem PS - Madhugiri PS S/C, 765 kV Dharamjaigarh - Champa S/C, 765 kV Champa-Raigarh S/C and 765 kV Sipat-Bilaspur ekt-3 and some other 400 kV lines
		18-22	10000		9250	7382	1868	500	
		22-24	10000		9250	7297	1953	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 2018 to 31st December 2018	00-06	4500	700	3800	388	3412		
		06-18			3800	553	3247		
	18-24	4500	3800		388	3412			
NER	1st December 2018 to 31st December 2018	00-17	1880	45	1835	0	1835		
		17-23	2070		2025		2025		
		23-24	1880		1835		1835		
WR									
SR *	1st December 2018 to 31st December 2018	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 Badod-Modak	Rev-0 to 1
WR-NR	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 1
	Frequent tripping of HVDC Champa - Kurukshetra poles	Rev-0 to 1
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 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 to 1
WR-SR and ER-SR	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 1
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 1
ER-NER	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 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 to 1
W3 zone Injection	---	Rev-0 to 1

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 1
		(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 1
		Frequent tripping of HVDC Champa - Kurukshetra poles	Rev-0 to 1
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev-0 to 1
(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 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 to 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 to 1
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 1

**National Load Despatch Centre
Total Transfer Capability for December 2018**

Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	26th Nov 2018	Whole month	(i) Revised TTC due to change in: (a) load generation balance and network conditions and (b) change in pattern of inter-regional flow towards NR (ii) Revised STOA margins due to operationalization of : (a) 50 MW LTA from Green Infra Energy Limited to Delhi, (b) 99.9 MW LTA from Green Infra Energy Limited to UP (c) 20 MW LTA from OKWPL to UP discom	WR-NR/ Import of NR
			Revised considering (a) recent commissioning of 765 kV Jharsuguda - Dharamjaygarh 3&4, 765 kV Gadawara - Warora PS D/C, 765 kV Warora PS - Parli D/C, LILO of Kurnool - Thirvualam D/C at Cuddapah, 400 kV Cuddapah-Hindupur D/C, Salem PS - Madhugiri PS S/C, 765 kV Dharamjaigarh - Champa S/C, 765 kV Champa-Raigarh S/C and 765 kV Sipat-Bilaspur ckt-3 and some other 400 kV lines	WR-SR/ER-SR/ Import of SR

ASSUMPTIONS IN BASECASE					
				Month : December'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	7121	4573	4602	4217
2	Haryana	7810	5484	2002	2002
3	Rajasthan	11766	12065	7031	6910
4	Delhi	4670	2505	1266	1266
5	Uttar Pradesh	14350	14457	7408	7224
6	Uttarakhand	2083	1622	946	685
7	Himachal Pradesh	1554	739	224	157
8	Jammu & Kashmir	2098	1610	374	306
9	Chandigarh	258	130	0	0
10	ISGS/IPPs	54	53	18132	10730
	Total NR	51764	43237	41985	33497
II	EASTERN REGION				
1	Bihar	3453	2410	247	177
2	Jharkhand	975	812	360	223
3	Damodar Valley Corporation	2946	2756	5213	4002
4	Orissa	3715	2991	2344	2044
5	West Bengal	7102	5253	5189	4516
6	Sikkim	76	82	0	0
7	Bhutan	202	208	643	534
8	ISGS/IPPs	692	643	12290	9301
	Total ER	19160	15155	26285	20796
III	WESTERN REGION				
1	Maharashtra	18572	12992	13651	8562
2	Gujarat	13543	11084	8764	8072
3	Madhya Pradesh	12461	8848	4689	4821
4	Chattisgarh	3918	2719	2751	2152
5	Daman and Diu	329	263	0	0
6	Dadra and Nagar Haveli	815	686	0	0
7	Goa-WR	527	325	0	0
8	ISGS/IPPs	4485	3475	38213	30169
	Total WR	54650	40392	68068	53776

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	8873	6394	6225	4712
2	Telangana	10073	8339	4311	3808
3	Karnataka	9928	6077	6500	4842
4	Tamil Nadu	13905	11359	6899	5799
5	Kerala	3745	2119	1524	153
6	Pondy	340	368	0	0
7	Goa-SR	77	83	0	0
8	ISGS/IPPs	0	0	16984	10353
	Total SR	46942	34739	42443	29668
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	141	88	0	0
2	Assam	1235	1119	185	142
3	Manipur	179	96	0	0
4	Meghalaya	357	230	169	91
5	Mizoram	98	66	8	8
6	Nagaland	121	77	16	0
7	Tripura	194	120	74	74
8	ISGS/IPPs	156	96	2042	1566
	Total NER	2481	1893	2494	1881
	Total All India	174998	135416	181276	139618