

National Load Despatch Centre
Total Transfer Capability for January 2019

Issue Date: 28th December 2018

Issue Time: 1600 hrs

Revision No. 2

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 January 2019 to 31st January 2019	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st January 2019 to 31st January 2019	00-24	12250	500	11750	9275	2475		Revised STOA margin due to additional 20 MW LTA to Delhi from Ostro Kutch Wind Power Ltd (OKWPL)
			11300**		10800**	8325**	2475**		
NR-ER*	1st January 2019 to 31st January 2019	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st January 2019 to 31st January 2019	00-24	5250	300	4950	3867	1083		
W3-ER	1st January 2019 to 31st January 2019	00-24	No limit is being specified.						
ER-W3	1st January 2019 to 31st January 2019	00-24	No limit is being specified.						
WR-SR	1st January 2019 to 31st January 2019	00-05	5200	500	4700	4535	165		
		05-22	5200		4700		165		
		22-24	5200		4700		165		
SR-WR *	1st January 2019 to 31st January 2019	00-24	No limit is being Specified.						

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ER-SR	1st January 2019 to 31st January 2019	00-06	4800	250	4550	2762	1788		
		06-18				2847	1703		
		18-24				2762	1788		
SR-ER *	1st January 2019 to 31st January 2019	00-24	No limit is being Specified.						
ER-NER	1st January 2019 to 31st January 2019	00-17	1100	45	1055	225	830		
		17-23	1160		1115		890		
		23-24	1100		1055		830		
NER-ER	1st January 2019 to 31st January 2019	00-17	2000	45	1955	0	1955		
		17-23	2070		2025		2025		
		23-24	2000		1955		1955		
W3 zone Injection	1st January 2019 to 31st January 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) 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 January 2019 to 31st January 2019	00-06	16350 15400**	800	15550 14600**	13167 12217**	2383 2383**	-1150	(i) Revised TTC due to change in pattern of inter-regional flow towards NR (ii) Revised STOA margin due to additional 20 MW LTA to Delhi from Ostro Kutch Wind Power Ltd (OKWPL)	
		06-17	17500 16550**		16700 15750**		3553 3553**			
		17-18	15700 14750**		14900 13950**		1733 1733**	-1800		
		18-23	15700 14750**		14900 13950**		1733 1733**			
		23-24	15700 14750**		14900 13950**		1733 1733**	-1800		
NER	1st January 2019 to 31st January 2019	00-17 17-23 23-24	1100 1160 1100	45	1055 1115 1055	225	830 890 830			
WR										
SR	1st January 2019 to 31st January 2019	00-06	10000	750	9250	7297	1953			
		06-18	10000		9250	7382	1868			
		18-24	10000		9250	7297	1953			

* 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 - Vindhyaachal 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 January 2019 to 31st January 2019	00-06	4500	700	3800	388	3412		
		06-18			3800	553	3247		
		18-24			3800	388	3412		
NER	1st January 2019 to 31st January 2019	00-17	2000	45	1955	0	1955		
		17-23	2070		2025				
		23-24	2000		1955		1955		
WR									
SR *	1st January 2019 to 31st January 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 Badod-Modak	Rev-0 to 2
WR-NR	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 2
	Frequent tripping of HVDC Champa - Kurukshetra poles	Rev-0 to 1
	RVO operation of HVDC Champa Kurukshetra Poles Reversal of BNC-Agra pole towards BNC & blocking of APD-Agra pole due to lean hydro period in NER	Rev-2
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 2
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 2
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 2
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 2
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 2
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 2
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 2
W3 zone Injection	---	Rev-0 to 2

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 2
		(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 2
		Frequent tripping of HVDC Champa - Kurukshetra poles	Rev-0 to 1
	Export	RVO operation of HVDC Champa Kurukshetra Poles Reversal of BNC-Agra pole towards BNC & blocking of APD-Agra pole due to lean hydro period in NER	Rev-2
		(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 2
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 2
	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 2
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 2
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 2
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 2

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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	26th Nov 2018	Whole Month	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
			Revised STOA margin 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
2	28th Dec 2018	Whole Month	Revised STOA margin due to additional 20 MW LTA to Delhi from Ostro Kutch Wind Power Ltd (OKWPL)	WR-NR/Import of NR
			Revised TTC due to change in pattern of inter-regional flow towards NR	Import of NR

ASSUMPTIONS IN BASECASE					
					Month : January'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	7403	4583	4272	4196
2	Haryana	7726	5851	2071	2071
3	Rajasthan	11094	11137	6550	6549
4	Delhi	4835	2698	855	855
5	Uttar Pradesh	13811	13644	6532	6434
6	Uttarakhand	2014	1411	1013	663
7	Himachal Pradesh	1421	503	204	54
8	Jammu & Kashmir	1892	1450	551	494
9	Chandigarh	277	89	0	0
10	ISGS/IPPs	31	30	16917	8993
	Total NR	50505	41396	38965	30309
II	EASTERN REGION				
1	Bihar	3528	2449	247	177
2	Jharkhand	996	825	360	223
3	Damodar Valley Corporation	3010	2801	5213	4002
4	Orissa	3791	3036	2344	2044
5	West Bengal	7217	5307	5189	4516
6	Sikkim	77	83	0	0
7	Bhutan	207	211	643	534
8	ISGS/IPPs	1120	1066	12334	9261
	Total ER	19946	15777	26329	20756
III	WESTERN REGION				
1	Maharashtra	18055	12575	13762	9716
2	Gujarat	13539	11258	8981	7570
3	Madhya Pradesh	11708	7248	5031	4324
4	Chattisgarh	3956	2545	2893	2641
5	Daman and Diu	328	300	0	0
6	Dadra and Nagar Haveli	815	728	0	0
7	Goa-WR	556	300	0	0
8	ISGS/IPPs	4385	3459	38121	28319
	Total WR	53343	38412	68789	52570

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	7623	6640	6103	4712
2	Telangana	9109	6830	4737	3624
3	Karnataka	10386	5951	7633	4885
4	Tamil Nadu	14707	13791	6879	5234
5	Kerala	3727	2299	1462	374
6	Pondy	338	360	0	0
7	Goa-SR	76	81	0	0
8	ISGS/IPPs	0	0	14302	12230
	Total SR	45967	35953	41116	31060
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	126	71	0	0
2	Assam	1182	1001	185	142
3	Manipur	155	93	0	0
4	Meghalaya	325	359	115	169
5	Mizoram	100	67	8	8
6	Nagaland	113	76	12	12
7	Tripura	325	196	72	74
8	ISGS/IPPs	159	156	1888	1888
	Total NER	2486	2020	2280	2293
	Total All India	172247	133557	177478	136988