

**National Load Despatch Centre
Total Transfer Capability for March 2020**

Issue Date: 1st March 2020

Issue Time: 1230 hrs

Revision No. 5

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 March 2020 to 31st March 2020	00-06	2500	500	2000	195	1805			
		06-18				250	1750			
		18-24				195	1805			
WR-NR*	1st March 2020 to 4th March 2020	00-06	12400	500	11900	10275	1625			
			11450**		10950**	9325**				
		06-18	12400	500	11900	10664	1236			
			11450**		10950**	9714**				
		18-24	12400	500	11900	10275	1625			
			11450**		10950**	9325**				
	5th March 2020 to 31st March 2020	00-06	16150	500	15650	10275	5375			
			15200**		14700**	9325**		5375**		
		06-18	16150	500	15650	10664	4986			
			15200**		14700**	9714**		4986**		
		18-24	16150	500	15650	10275	5375			
			15200**		14700**	9325**		5375**		
NR-ER*	1st March 2020 to 31st March 2020	00-06	2000	200	1800	193	1607			
		06-18	2000		1800	303	1497			
		18-24	2000		1800	193	1607			
ER-NR*	1st March 2020 to 31st March 2020	00-24	5250	300	4950	4050	900			
W3-ER	1st March 2020 to 31st March 2020	00-24	No limit is being specified.							
ER-W3	1st March 2020 to 31st March 2020	00-24	No limit is being specified.							
WR-SR	1st March 2020	00-0830	6450	500	5950	4035	1915			
		0830-22	5500		5000		965			
		22-24	5500		5000		965			
	2nd March 2020	00-0830	6450	500	5950	4035	1915		TTC/ATC revised due to emergency shutdown of 765 kV Wardha - Nizamabad - II	
		0830-22	5500		5000		965			-950
		22-24	5500		5000		965			-950
	3rd March 2020 to 7th March 2020	00-05	6450	500	5950	4035	1915			
		05-22	6450		5950		1915			
		22-24	6450		5950		1915			
	8th March 2020 to 31st March 2020	00-05	6950	500	6450	4035	2415			
		05-22	6950		6450		2415			
		22-24	6950		6450		2415			
	SR-WR *	1st March 2020 to 31st March 2020	00-24	No limit is being Specified.						

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ER-SR	1st March 2020	00-06	5950	250	5700	2663	3037		TTC/ATC revised due to emergency shutdown of 765 kV Wardha-Nizamabad ckt II
		06-0830	5950		5700	2748	2952		
		0830-18	5900		5650	2748	2902		
		18-24	5900		5650	2663	2987		
	2nd March 2020	00-06	5950	250	5700	2663	3037		
		06-0830	5950		5700	2748	2952		
		0830-18	5900		5650	2748	2902	-50	
		18-24	5900		5650	2663	2987	-50	
	3rd March 2020 to 31st March 2020	00-06	5950	250	5700	2663	3037		
		06-18				2748	2952		
18-24		2663				3037			
SR-ER *	1st March 2020 to 31st March 2020	00-24	No limit is being Specified.						

ER-NER	1st March 2020 to 31st March 2020	00-17	1380	45	1335	334	1001	
		17-23	1190		1145		811	
		23-24	1380		1335		1001	
NER-ER	1st March 2020 to 31st March 2020	00-17	2430	45	2385	0	2385	
		17-23	2100		2055		2055	
		23-24	2430		2385		2385	

W3 zone 1st March 2020 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 - Vinhyachal PS D/C line as inter-regional line for the purpose of scheduling, metering and accounting and 950 MW ex-bus

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 Viduyt 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.

Real Time TTC/ATC revisions are uploaded on POSOCO/NLDC "News Update" (Flasher) Section

Though 2X315 MVA, 400/220 kV ICTs at Maradam are N-1 non-compliant, the TTC of WR-SR and ER-SR corridor has not been restricted due to the same considering

In case of drawl of Karnataka beyond 3800 MW, the voltages in Bengaluru area are observed to be critically low. This issue may be taken care of by Karnataka SLDC by

SR	1st March 2020	00-06	12400	750	11650	6698	4952		TTC/ATC revised due to emergency shutdown of 765 kV Wardha - Nizamabad - II
		06-0830	12400		11650	6783	4867		
		0830-18	11400		10650	6783	3867		
		18-24	11400		10650	6698	3952		
	2nd March 2020	00-06	12400	750	11650	6698	4952		
		06-0830	12400		11650	6783	4867		
		0830-18	11400		10650	6783	3867	-1000	
		18-24	11400		10650	6698	3952	-1000	
SR	3rd March 2020 to 7th March 2020	00-06	12400	750	11650	6698	4952		
		06-18	12400		11650	6783	4867		
		18-24	12400		11650	6698	4952		
SR	8th March 2020 to 31st March 2020	00-06	12900	750	12150	6698	5452		
		06-18	12900		12150	6783	5367		
		18-24	12900		12150	6698	5452		

* 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 = $A * C / (B+C)$

Real Time TTC/ATC revisions are uploaded on POSOCO/NLDC "News Update" (Flasher) Section

Though 2X315 MVA, 400/220 kV ICTs at Maradam are N-1 non-compliant, the TTC of SR Import has not been restricted due to the same considering that this aspect will be managed by AP SLDC through appropriate measures like SPS implementation.

In case of drawl of Karnataka beyond 3800 MW, the voltages in Bengaluru area are observed to be critically low. This issue may be taken care of by Karnataka by

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 March 2020 to 31st March 2020	00-06	4500	700	3800	388	3412		
		06-18			3800	553	3247		
		18-24	4500		3800	388	3412		
NER	1st March 2020 to 31st March 2020	00-17	2430	45	2385	0	2385		
		17-23	2100		2055		2055		
		23-24	2430		2385		2385		
WR									
SR *	1st March 2020 to 31st March 2020	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).									
Real Time TTC/ATC revisions are uploaded on POSOCO/NLDC "News Update" (Flasher) Section									

Limiting Constraints (Corridor wise)			Applicable Revisions
Corridor	Constraint		
WR-NR	n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line		Rev- 0-5
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli		Rev- 0-5
ER-NR	1. N-1 contingencies of 400 kv Mejia-Maithon A S/C		Rev- 0-5
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- 0-2
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT		
	Low Voltage at Gazuwaka (East) Bus.		Rev- 3
	n-1 contingency of one ckt of 765 kV Wardha - Nizamabad D/C will overload of the other ckt		
n-1 contingency of one ckt of 765 kV Angul - Srikakulam D/C will overload of the other ckt		Rev - 3 to 4	
Low Voltage at Gazuwaka (East) Bus.			
ER-NER	a) N-1 contingency of 400 kV Bongaigaon - Azara line		Rev- 0-5
NER-ER	a) N-1 contingency of 400 kV Silchar- Azara line		Rev- 0-3
	a) N-1 contingency of 400 kV Silchar- Azara line		Rev- 4
W3 zone Injection	---		Rev- 0-5
Limiting Constraints (Simultaneous)			Applicable Revisions
NR	Import	1. N-1 contingencies of 400 kv Mejia-Maithon A S/C	Rev- 0-5
		n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida	Rev- 0-5
NR	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev- 0-5
		(n-1) contingency of 400 kV Saranath-Pusauli	
NER	Import	a) N-1 contingency of 400 kV Bongaigaon - Azara line	Rev- 0-5
	Export	a) N-1 contingency of 400 kV Silchar- Azara line	Rev- 0-3
SR	Import	a) N-1 contingency of 400 kV Silchar- Azara line	Rev- 4
		n-1 contingency of 2x315 MVA, 400/220 kV ICTs at Mardam will lead to overloading of the second ICT	Rev- 0-2
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second	
		Low Voltage at Gazuwaka (East) Bus.	Rev- 3
		n-1 contingency of one ckt of 765 kV Wardha - Nizamabad D/C will overload of the other ckt	
n-1 contingency of one ckt of 765 kV Angul - Srikakulam D/C will overload of the other ckt	Rev- 3 to 4		
		Low Voltage at Gazuwaka (East) Bus	

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Total Transfer Capability for March 2020**

Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	31st December 2019	Whole Month	Revised STOA margin due to the following:- a) Operationalization of 10 MW LTA from AGEMPL (Wind, Bhuj) to Noida Power Company Limited (UP) b) Change in LTA quantum from GIWEL_SECI-III_RE (Wind, Bhuj) to Punjab from 112 MW to 117.6 MW	WR-NR/Import of NR
2	28th January 2020	Whole Month	TTC/ATC revised after commissioning of HVDC Champa - Kurukshetra Pole 3 Revised STOA Margin due to the following:- a) Operationalization of 200 MW LTA from SBG Cleantech Project Co. Five Pvt. Ltd. (SR-Pavagada) to UPPCL b) Revision in LTA quantum from GIWEL_SECI-III_RE (Wind, Bhuj) to Punjab from 117.6 MW to 149.8 MW c) Revision in LTA quantum from RPL-SECI-II-RE (Wind Bachau) to UPPCL from 34.5 MW to 73.8 MW and reduction in LTA quantum to Punjab from 100 MW to 73.8 MW	WR-NR/Import of NR
3	31st January 2020	Whole Month	Increment in TTC/ATC after commissioning of 765 kV Vemagiri - C'peta D/C	WR-SR/ER-SR and Import of SR
4	29th Feb 2020	Whole Month	Revised TTC due to change in inter-regional power flow pattern towards NR	Import of NR
		1st March to 4th March 2020	Revised TTC due to HVDC Champa-Kurukshetra Pole-1, Pole-2 & Pole-3 shutdown for pole-4 commissioning work	WR-NR/Import of NR
		Whole Month	Revision in TTC/ATC due to the following:- a) Long Outage of Palatana Module-1 & 2 b) Addition of 400/220/33 kV, 315 MVA ICT-I at BgTTP c) Addition of 132 kV Imphal (PG)-Imphal (MA) III d) Change in Load-Generation of NER	ER-NER/NER-ER/Import and Export of NER
		1st March to 7th March 2020	Revised due to forced outage of Pole-1 at Bhadrawathi	WR-SR/Import of SR
		1st March 2020	Revised TTC due to emergency S/D of 765 kV Wardha-Nizamabad ckt II	WR-SR/ER-SR/Import of SR
5	1st Mar 2020	2nd March 2020	Revised TTC due to emergency S/D of 765 kV Wardha-Nizamabad ckt II	WR-SR/ER-SR/Import of SR

ASSUMPTIONS IN BASECASE					
				Month : March'20	
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	7428	5706	2828	2753
2	Haryana	7758	5614	1872	1872
3	Rajasthan	12309	12150	7305	7411
4	Delhi	4556	2786	591	591
5	Uttar Pradesh	13665	12236	6567	6497
6	Uttarakhand	1960	1394	810	503
7	Himachal Pradesh	1544	1204	299	176
8	Jammu & Kashmir	2112	2202	516	604
9	Chandigarh	260	140	0	0
10	ISGS/IPPs	27	26	18491	11987
	Total NR	51618	43457	39279	32394
II	EASTERN REGION				
1	Bihar	4731	3187	178	180
2	Jharkhand	1235	964	408	392
3	Damodar Valley Corporation	3087	2823	4391	3825
4	Orissa	4306	2951	3367	2300
5	West Bengal	6534	5471	5044	3982
6	Sikkim	229	292	0	0
7	Bhutan	182	173	201	281
8	ISGS/IPPs	641	651	13217	10006
	Total ER	20946	16512	26805	20966
III	WESTERN REGION				
1	Maharashtra	19845	14168	15665	10912
2	Gujarat	15423	12945	11430	9642
3	Madhya Pradesh	10953	7703	6725	3923
4	Chattisgarh	4485	3675	2280	2280
5	Daman and Diu	342	277	0	0
6	Dadra and Nagar Haveli	854	750	0	0
7	Goa-WR	563	361	0	0
8	ISGS/IPPs	5421	4457	41073	35927
	Total WR	57886	44336	77173	62684

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	9149	7298	6374	5263
2	Telangana	11085	9400	4943	4643
3	Karnataka	10033	6255	7707	3862
4	Tamil Nadu	16685	13528	6897	5947
5	Kerala	4246	2882	1772	547
6	Pondy	335	287	0	0
7	Goa-SR	66	56	0	0
8	ISGS/IPPs	0	0	18175	12179
	Total SR	51599	39706	45868	32442
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	145	90	8	8
2	Assam	1654	1173	244	216
3	Manipur	206	88	0	0
4	Meghalaya	293	193	243	106
5	Mizoram	105	67	60	21
6	Nagaland	128	80	12	0
7	Tripura	225	135	75	77
8	ISGS/IPPs	136	83	2107	1648
	Total NER	2891	1909	2749	2076
	Total All India	184940	145920	191873	150561