

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

Issue Date: 29th February 2020

Issue Time: 1230 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 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	-3750	Revision in TTC/ATC due to HVDC Champa-Kurukshetra Pole-1, Pole-2 & Pole-3 shutdown for pole-4 commissioning work
		06-18	11450**	10950**	9325**	1236			
			12400	11900	10664				
			11450**	10950**	9714**				
	18-24	12400	11900	10275	1625				
		11450**	10950**	9325**					
	5th March 2020 to 31st March 2020	00-06	16150	500	15650	10275	5375		
		06-18	15200**	14700**	9325**	4986			
			16150	15650	10664				
15200**			14700**	9714**					
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	-500	TTC/ATC revised due to the following:- a) Forced outage of HVDC Bhadrawati Pole - I b) Emergency outage of 765 kV Wardha - Nizamabad - II
		0830-22	5500		5000		965	-1450	
		22-24	5500		5000		965	-1450	
	2nd March 2020 to 7th March 2020	00-05	6450	500	5950	4035	1915	-500	TTC/ATC revised due to forced outage of HVDC Bhadrawati Pole - I
		05-22	6450		5950		1915	-500	
		22-24	6450		5950		1915	-500	
	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 S/D of 765 kV Wardha-Nizamabad ckt II
		06-0830	5950		5700	2748	2952		
		0830-18	5900		5650	2748	2902	-50	
		18-24	5900		5650	2663	2987	-50	
	2nd March 2020 to 31st March 2020	00-06	5950	250	5700	2663	3037		
		06-18			5700	2748	2952		
18-24		5700			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	170	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 BgTPP c) Addition of 132 kV Imphal (PG)-Imphal (MA) III d) Change in Load-Generation of NER
		17-23	1190		1145		811	190	
		23-24	1380		1335		1001	170	
NER-ER	1st March 2020 to 31st March 2020	00-17	2430	45	2385	0	2385	480	
		17-23	2100		2055		2055	-100	
		23-24	2430		2385		2385	480	

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)						
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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

- 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 Raikhedra, 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



<b>SR</b>	1st March 2020	00-06	12400	750	11650	6698	4952	-500	TTC/ATC revised due to the following:- a) Forced outage of HVDC Bhadrawati Pole - I b) Emergency outage of 765 kV Wardha - Nizamabad - II
		06-0830	12400		11650	6783	4867	-500	
		0830-18	11400		10650	6783	3867	-1500	
		18-24	11400		10650	6698	3952	-1500	
<b>SR</b>	2nd March 2020 to 7th March 2020	00-06	12400	750	11650	6698	4952	-500	TTC/ATC revised due to forced outage of HVDC Bhadrawati Pole - I
		06-18	12400		11650	6783	4867	-500	
		18-24	12400		11650	6698	4952	-500	
<b>SR</b>	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 - 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 =  $A * C/(B+C)$

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

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	480	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 BgTPP c) Addition of 132 kV Imphal (PG)-Imphal (MA) III d) Change in Load-Generation of NER
		17-23	2100		2055		2055	-100	
		23-24	2430		2385		2385	480	
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									

<b>Limiting Constraints (Corridor wise)</b>			<b>Applicable Revisions</b>
<b>Corridor</b>	<b>Constraint</b>		
<b>WR-NR</b>	n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line		Rev- 0-4
<b>NR-ER</b>	(n-1) contingency of 400 kV Saranath-Pusauli		Rev- 0-4
<b>ER-NR</b>	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- 0-4
<b>WR-SR and ER-SR</b>	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 to 4
	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		
Low Voltage at Gazuwaka (East) Bus.			
<b>ER-NER</b>	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)		Rev- 0-4
<b>NER-ER</b>	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading of 400 kV Silchar-Killing line		Rev- 0-3
	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading in Meghalya Internal Power System		Rev- 4
<b>W3 zone Injection</b>	---		Rev- 0-4
<b>Limiting Constraints (Simultaneous)</b>			<b>Applicable Revisions</b>
<b>NR</b>	<b>Import</b>	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- 0-4
		n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line	Rev- 0-4
	<b>Export</b>	(n-1) contingency of 400kV Zerd-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli	Rev- 0-4
<b>NER</b>	<b>Import</b>	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev- 0-4
		<b>Export</b>	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading of 400 kV Silchar-Killing line
	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading in Meghalya Internal Power System		Rev- 4
<b>SR</b>	<b>Import</b>	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 to 4
		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	
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 BgTPP 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

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	<b>NORTHERN REGION</b>				
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/PPs	27	26	18491	11987
	<b>Total NR</b>	<b>51618</b>	<b>43457</b>	<b>39279</b>	<b>32394</b>
II	<b>EASTERN REGION</b>				
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/PPs	641	651	13217	10006
	<b>Total ER</b>	<b>20946</b>	<b>16512</b>	<b>26805</b>	<b>20966</b>
III	<b>WESTERN REGION</b>				
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/PPs	5421	4457	41073	35927
	<b>Total WR</b>	<b>57886</b>	<b>44336</b>	<b>77173</b>	<b>62684</b>



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