

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

Issue Date: 29th March 2020

Issue Time: 1800 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 May 2020 to 31st May 2020	00-06	2500	500	2000	195	1805			
		06-18				250	1750			
		18-24				195	1805			
WR-NR*	1st May 2020 to 31st May 2020	00-06	16150	500	15650	10219	5431		Revision in STOA margin due to the following:- 1) Operationalization of 50 MW LTA from AGEMPL (Wind, Bhuj) to Punjab 2) Completion of 108 MW MTOA from SKS to NPCL (UP)	
			15200**			14700**				
		06-18	16150	500	15650	10608	5042			
			15200**			14700**				
		18-24	16150	500	15650	10219	5431			
			15200**			14700**				
NR-ER*	1st May 2020 to 31st May 2020	00-06	2000	200	1800	193	1607			
		06-18	2000		1800	303	1497			
		18-24	2000		1800	193	1607			
ER-NR*	1st May 2020 to 31st May 2020	00-24	5250	300	4950	4050	900			
W3-ER	1st May 2020 to 31st May 2020	00-24	No limit is being specified.							
ER-W3	1st May 2020 to 31st May 2020	00-24	No limit is being specified.							
WR-SR	1st May 2020 to 31st May 2020	00-05	6950	500	6450	4035	2415			
		05-22	6950		6450		2415			
		22-24	6950		6450		2415			
SR-WR *	1st May 2020 to 31st May 2020	00-24	No limit is being Specified.							
ER-SR	1st May 2020 to 31st May 2020	00-06	5950	250	5700	2663	3037			
		06-18				2748	2952			
		18-24				2663	3037			
SR-ER *	1st May 2020 to 31st May 2020	00-24	No limit is being Specified.							
ER-NER	1st May 2020 to 31st May 2020	00-02	1480	45	1435	289	1146			
		02-07	1480		1435	289	1146			
		07-12	1480		1435	334	1101			
		12-17	1480		1435	334	1101			
		17-23	1100		1055	289	766			
		23-24	1480		1435	289	1146			
NER-ER	1st May 2020 to 31st May 2020	00-02	2400	45	2355	0	2355			
		02-07	2400		2355		2355			
		07-12	2530		2485		2485			
		12-17	2450		2405		2405			
		17-23	2500		2455		2455			
		23-24	2400		2355		2355			

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W3 zone Injection	1st May 2020 to 31st May 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 - 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.

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 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 SLDC by taking appropriate measures.

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
NR	1st May 2020 to 31st May 2020	00-06	21400 20450**	800	20600 19650**	14269 13319**	6331	-700	A) Revision in STOA margin due to the following:-
		06-09	21400 20450**		20600 19650**	14658 13708**	5942	-2350	1) Operationalization of 50 MW LTA from AGEMPL (Wind, Bhuj) to Punjab
		09-17	21400 20450**		20600 19650**	14658 13708**	5942	-700	2) Completion of 108 MW MTOA from SKS to NPCL (UP)
		17-18	21400 20450**		20600 19650**	14658 13708**	5942	-150	B) Revision in TTC/ATC due to change in inter-regional flow pattern towards NR.
		18-24	21400 20450**		20600 19650**	14269 13319**	6331	-150	
		NER	1st May 2020 to 31st May 2020		00-02	1480	45	1435	289
02-07	1480			1435	289	1146			
07-12	1480			1435	334	1101			
12-17	1480			1435	334	1101			
17-23	1100			1055	289	766			
23-24	1480			1435	289	1146			
WR									
SR	1st May 2020 to 31st May 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 taking appropriate measures.									

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 May 2020 to 31st May 2020	00-06	4500	700	3800	388	3412		
		06-18			3800	553	3247		
		18-24			3800	388	3412		
NER	1st May 2020 to 31st May 2020	00-02	2400	45	2355	0	2355		
		02-07	2400		2355		2355		
		07-12	2530		2485		2485		
		12-17	2450		2405		2405		
		17-23	2500		2455		2455		
		23-24	2400		2355		2355		
WR									
SR *	1st May 2020 to 31st May 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 to 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
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev- 0
	Low Voltage at Gazuwaka (East) Bus.	Rev- 0
	n-1 contingency of one ckt of 765 kV Wardha - Nizamabad D/C will overload of the other ckt	Rev- 1 to 2
	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.	
ER-NER	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev- 0 to 2
NER-ER	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading of 400 kV Silchar-Killing Line	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
		n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overloading of 765 kV Aligarh - Gr. Noida Line
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli
NER	Import	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)
	Export	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading of 400 kV Silchar-Killing Line
SR	Import	n-1 contingency of 2x315 MVA, 400/220 kV ICTs at Mardam will lead to overloading of the second ICT
		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.
		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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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	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
2	29th March 2020	Whole Month	<p>1) Revision in STOA margin due to the following:-</p> <p>a) Operationalization of 50 MW LTA from AGEMPL (Wind, Bhuj) to Punjab</p> <p>b) Completion of 108 MW MTOA from SKS to NPCL (UP)</p> <p>2) Revision in TTC/ATC due to change in inter-regional flow pattern towards NR.</p>	WR-NR/NR Import

ASSUMPTIONS IN BASECASE					
				Month : May'2020	
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	8945	7996	4345	4345
2	Haryana	7078	7080	1482	1482
3	Rajasthan	11096	11171	7310	7310
4	Delhi	5399	5646	675	675
5	Uttar Pradesh	16353	15141	8159	8163
6	Uttarakhand	1994	1654	1002	904
7	Himachal Pradesh	1587	1214	503	598
8	Jammu & Kashmir	2835	2230	1114	1113
9	Chandigarh	313	247	0	0
10	ISGS/PPs	26	26	19268	15677
	Total NR	55626	52406	43858	40268
II	EASTERN REGION				
1	Bihar	4752	3257	198	180
2	Jharkhand	1312	1000	425	387
3	Damodar Valley Corporation	3064	2872	4721	3825
4	Orissa	4372	2915	3434	2012
5	West Bengal	8398	6426	5454	4242
6	Sikkim	226	297	0	0
7	Bhutan	178	170	596	621
8	ISGS/PPs	-178	-170	12961	10999
	Total ER	22123	16767	27789	22266
III	WESTERN REGION				
1	Maharashtra	20197	17639	16056	14338
2	Gujarat	16505	15341	10959	11482
3	Madhya Pradesh	8999	8245	3359	4870
4	Chattisgarh	4685	4146	2038	2130
5	Daman and Diu	345	298	0	0
6	Dadra and Nagar Haveli	872	745	0	0
7	Goa-WR	608	419	0	0
8	ISGS/PPs	5376	4560	41709	37155
	Total WR	57588	51393	74120	69976

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	9263	5967	6407	4555
2	Telangana	8387	8052	4377	4644
3	Karnataka	10291	8660	7689	5927
4	Tamil Nadu	16248	14749	7750	6247
5	Kerala	4248	2932	1703	554
6	Pondy	327	276	0	0
7	Goa-SR	64	54	0	0
8	ISGS/IPPs	0	0	17514	12179
	Total SR	48827	40689	45440	34107
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	139	65	8	8
2	Assam	1769	1193	286	244
3	Manipur	187	86	0	0
4	Meghalaya	277	205	215	154
5	Mizoram	103	68	20	8
6	Nagaland	130	85	12	0
7	Tripura	221	137	75	77
8	ISGS/IPPs	133	84	2321	1892
	Total NER	2959	1924	2937	2383
	Total All India	187123	163179	194144	168999