# National Load Despatch Centre Total Transfer Capability for October 2020

Issue Date: 28th August 2020 Issue Time: 1800 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
	1st October	00-06				195	1805		
NR-WR*	2020 to 31st October 2020	06-18	2500	500	2000	1281	719		
	October 2020	18-24				195	1805		
		00-06	18150 17200**	500	17650 16700**	10268 9318**	7382	950	
WR-NR*	1st October 2020 to 31st October 2020	06-18	18150 17200**	500	17650 16700**	10657 9707**	6993	950	Revision in TTC/ATC due to commissioning of HVDC Champa - Kurukshetra Pole-4
		18-24	18150 17200**	500	17650 16700**	10268 9318**	7382	950	
	1st October	00-06	2000		1800	193	1607		
NR-ER*	2020 to 31st	06-18	2000	200	1800	303	1497		
1,11 221	October 2020	18-24	2000		1800	193	1607		
ER-NR*	1st October 2020 to 31st October 2020	00-24	6250	300	5950	4066	1884	1000	Revision in TTC/ATC due to change in HVDC APD-Agra power order and load-generation balance.
W3-ER	1st October 2020 to 31st October 2020	00-24	No limit is being specified.						
ER-W3	1st October 2020 to 31st October 2020	00-24				No limit i	s being specified.		
	1.0.1				-1-0		- 101	l	
WR-SR <sup>^</sup>	1st October 2020 to 31st October 2020	00-05 05-22 22-24	6950 6950 6950	500	6450 6450 6450	4049	2401 2401 2401		
SR-WR *	1st October 2020 to 31st October 2020	00-24	4600	400	4200	550	3650		
	1st October	00-06				2663	3037		
ER-SR <sup>△</sup>	2020 to 31st	06-18	5950	250	5700	2748	2952		
	October 2020	18-24				2663	3037		
SR-ER *	1st October 2020 to 31st October 2020	00-24				No limit i	s being Specified.		
		00-02	1060		1015	474	541		Desiries in OTO A
	1st October	02-07	1060		1015	474	541		Revision in STOA margin due to the following:-
ER-NER*	2020 to 31st	07-12	1080	45	1035	474	561		Tono ming.
	October 2020	12-17 17-23	1070 970		1025 925	474 474	551 451		a) Increase in allocation from
		23-24	1060		1015	474	541		Kameng HEP to UP, Haryana,
		00-02	2100		2055	42	2013		Chhattisgarh and Goa
	1st October	02-07	2100		2055	42	2013		b) Revision in LTA/allocation from
NER-ER*	2020 to 31st	07-12	2200	45	2155	42	2113		GIWEL, Bhuj (Wind) and
	October 2020	12-17	2180		2135	42	2093		Mangdechu HEP to Assam
		17-23 23-24	2350 2100		2305 2055	42 42	2263 2013		
		23-24	2100		2033	42	2015		

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W3 zone Injection	1st October 2020 to 31st October 2020	00-24	No limit is be	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) KWPCL, 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 commissionned 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.

SR-WR TTC/ATC figures have been calculated considering 01 unit (800 MW) at Kudgi TPS in service. The figures are subject to change with change in generation at Kudgi TPS.

WR-NR/Import of NR TTC has been calculated considering generation at Pariccha TPS as 350 MW. TTC figures are subject to change with significant change in generation at Pariccha TPS.

#### **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
		00-06	24400 23450**		23600 22650**	14334 13384**	9266	1950	
		06-09	24400		23600	14723	8877	1950	a) Revision in TTC/ATC due to
		00-09	23450**		22650**	13773**	00//	1930	commissioning of HVDC Champa - Kurukshetra Pole-4
NR*	1st October 2020 to 31st October 2020	09-17	24400 800 23450**	23600 22650**	14723 13773**	8877	1950	b) Revision in TTC/ATC due to	
		17-18	24400		23600	14723	8877	1950	change in HVDC APD-Agra power order and load-generation balance.
		18-24	23450** 24400 23450**		22650** 23600 22650**	13773** 14334 13384**	9266	1950	
		00-02	1060		1015	474	541		
	1 . 0 . 1	02-07	1060		1015	474	541	·	Revision in STOA margin due to
NER*	1st October 2020 to 31st	07-12	1080	45	1035	474	561		revision in LTA/allocation from
NEK	October 2020	12-17	1070	43	1025	474	551		GIWEL, Bhuj (Wind) and
	Getobel 2020	17-23	970		925	474	451		Mangdechu HEP to Assam
		23-24	1060		1015	474	541		
$\mathbf{WR}^*$									
	1st October	00-06	12900		12150	6712	5438		
SR*#	2020 to 31st	06-18	12900	750	12150	6797	5353		
	October 2020	18-24	12900		12150	6712	5438		

<sup>\*</sup> 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).

Margin in Simultaneous import of NR = A

WR-NR ATC =B

ER-NRATC = 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.

WR-NR/Import of NR TTC has been calculated considering generation at Pariccha TPS as 350 MW. TTC figures are subject to change with significant change in generation at Pariccha TPS.

<sup>\*\*</sup>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 exbus generation in Rihand stage-III. Rihand Stage-III generation is considered as NR regional entity.

<sup>\*</sup> 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:

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
	1st October	00-06	4500	700	3800	388	3412		
NR*	2020 to 31st	06-18	1300		3800	1584	2216		
	October 2020	18-24	4500		3800	388	3412		
		00-02	2100	45	2055	42	2013		Revision in STOA margin due to increase in allocation from Kameng HEP to UP, Haryana,
	1 (0 ( 1	02-07	2100		2055	42	2013		
NER*	1st October	07-12	2200		2155	42	2113		
NEK"	2020 to 31st October 2020	12-17	2180	43	2135	42	2093		
	3010001 2020	17-23	2350		2305	42	2263		Chhattisgarh and Goa
		23-24	2100		2055	42	2013		
WR*									
W K									
SR*^	2020 to 31st	00-24	3700	400	3300	1150	2150		

<sup>\*</sup> 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

^SR Export TTC/ATC figures have been calculated considering 01 unit (800 MW) at Kudgi TPS in service. The figures are subject to change with change in generation at Kudgi TPS.

Limiting	Constraints (Corridor wise)	
		Applicable Revisions
Corridor	Constraint	
WR-NR	N-1 contingency of 1000 MVA, 765/400 kV ICT at Orai will overload the other ICT	Rev 0 to 1
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev 0 to 1
ER-NR	<ol> <li>N-1 contingency of 400 kV Mejia-Maithon A line will overload the other ckt.</li> <li>N-1 contingency of 400 kV Kahalgaon-Banka line will overload the other ckt.</li> <li>N-1 contingency of 400kV MPL- Maithon line will overload the other ckt.</li> </ol>	Rev 0 to 1
WR-SR	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 0 to 1
SK	Low Voltage at Gazuwaka (East) Bus.	
	a) N-1 contingency of one ckt of 400 kV Kolhapur-PG - Kolhapur-MS D/C will overload of the other ckt b) N-1 contingency of 500 MVA ICT at 400 kV Kolhapur-MS will overload the other 2x315 MVA ICTs	Rev 0 to 1
ER-NER	<ul> <li>a) N-1 contingency of 400 kV Bongaigaon - Azara line</li> <li>b) High Loading of 220 kV Salakati - BTPS D/C</li> </ul>	Rev 0 to 1
NER-ER	<ul> <li>a) N-1 contingency of 400 kV Silchar- Azara line</li> <li>b) High Loading of 400 kV Silchar-Killing Line</li> </ul>	Rev 0 to 1
W3 zone Injection		Rev 0 to 1

# **Limiting Constraints (Simultaneous)**

			Applicable Revisions
NR	Import	N-1 contingency of 400 kV Mejia-Maithon A line will overload the other ckt.     N-1 contingency of 400 kV Kahalgaon-Banka line will overload the other ckt.     N-1 contingency of 400kV MPL- Maithon line will overload the other ckt.	Rev 0 to 1
-	Export	N-1 contingency of 1000 MVA, 765/400 kV ICT at Orai will overload the other ICT  (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 1 Rev 0 to 1
NER	Import	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Salakati - BTPS D/C	Rev 0 to 1
NEK	Export	<ul><li>a) N-1 contingency of 400 kV Silchar- Azara line</li><li>b) High Loading of 400 kV Silchar-Killing Line</li></ul>	Rev 0 to 1
SR	Import	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	Rev 0 to 1
	Export	N-1 contingency of one ckt of 400 kV Kolhapur-PG - Kolhapur-MS D/C will overload of the other ckt N-1 contingency of 500 MVA ICT at 400 kV Kolhapur-MS will overload the other 2x315 MVA ICTs	Rev 0 to 1

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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
	28th August		Revision in STOA margin due to the following:-  a) Increase in allocation from Kameng HEP to UP, Haryana, Chhattisgarh and Goa  b) Revision in LTA/allocation from GIWEL, Bhuj (Wind) and Mangdechu HEP to Assam	ER-NER/NER- ER/Import and Export of NER
1	2020	Whole Month	Revision in TTC/ATC due to:-  a) Commissioning of HVDC Champa - Kurukshetra Pole-4  b) Change in HVDC APD-Agra power order and load-generation balance.	WR-NR/ER- NR/Import of NR

ASSUM	MPTIONS IN BASECASE				
				Month : October'2020	
S.No.	Name of State/Area		Load	Genera	tion
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
I	NORTHERN REGION				
1	Punjab	8133	7273	4001	3942
2	Haryana	7657	6839	2174	2174
3	Rajasthan	10249	9651	6540	6595
4	Delhi	5100	3953	672	672
5	Uttar Pradesh	16112	15424	9198	9135
6	Uttarakhand	1864	1506	924	691
7	Himachal Pradesh	1711	1420	556	305
8	Jammu & Kashmir	2193	1509	617	578
9	Chandigarh	245	151	0	0
10	ISGS/IPPs	21	22	17560	11362
	Total NR	53286	47748	42242	35454
П	EASTERN REGION				
1	Bihar	5248	4450	99	110
2	Jharkhand	1593	1034	425	421
3	Damodar Valley Corporation	2946	2490	4980	4180
4	Orissa	4706	4034	3952	2615
5	West Bengal	8359	7055	5659	4956
6	Sikkim	111	43	0	0
7	Bhutan	167	170	1474	1444
8	ISGS/IPPs	-167	-170	11907	10404
	Total ER	22963	19106	28495	24128
III	WESTERN REGION				
1	Maharashtra	16480	13828	10992	9489
2	Gujarat	15472	12733	12021	9867
3	Madhya Pradesh	8471	7055	2717	2659
4	Chattisgarh	3889	3430	2247	1936
5	Daman and Diu	327	285	0	0
6	Dadra and Nagar Haveli	778	741	0	0
7	Goa-WR	522	442	0	0
8	ISGS/IPPs	4589	3583	35623	31509
	Total WR	50527	42096	63600	55460

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	8607	6756	8664	6188	
2	Telangana	12369	11626	6025	5200	
3	Karnataka	8244	4514	6969	2879	
4	Tamil Nadu	17012	12461	9075	7676	
5	Kerala	3776	2223	1630	326	
6	Pondy	340	231	0	0	
7	Goa-SR	53	45	0	0	
8	ISGS/IPPs	0	0	14753	12179	
	Total SR	50401	37856	47117	34448	
V	NORTH-EASTERN REGION					
1	Arunachal Pradesh	100	53	10	9	
2	Assam	1552	1090	295	245	
3	Manipur	179	88	0	0	
4	Meghalaya	268	208	183	97	
5	Mizoram	99	67	66	41	
6	Nagaland	130	108	21	18	
7	Tripura	252	155	76	75	
8	ISGS/IPPs	155	82	2268	2019	
	Total NER	2735	1851	2919	2504	
	Total All India	179756	148574	184373	151995	