National Load Despatch Centre

Total Transfer Capability for November 2020

Issue Date: 30th October 2020 Issue Time: 1700 hrs Revision No. 3

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 November 2020 to 30th November 2020	00-06	2500	500	2000	195	1805		
		06-18				1281	719		
		18-24				195	1805		
WR-NR*	1st November 2020 to 30th November 2020	00-06	18150 17200**	500	17650 16700**	10518 9568**	7132		STOA margin has been revised due to the following:- • Operationalization of 50 MW LTA from APL Ghadsisa (Wind) to Haryana • Revision in LTA quantum from Alfanar Bhuj (Wind) to Delhi DISCOMS from 153 MW to 179 MW • Revision in LTA quantum from SEISPPL_MP (Solar) to TDPPL, Delhi from 90 MW to 180 MW
		06-18	18150 17200**	500	17650 16700**	10997 10047**	6653		
		18-24	18150 17200**	500	17650 16700**	10518 9568**	7132		
NR-ER*	1st November 2020 to 30th November 2020	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st November 2020 to 30th November 2020	00-24	6250	300	5950	4066	1884		
W3-ER	1st November 2020 to 30th November 2020	00-24	No limit is being specified.						
ER-W3	1st November 2020 to 30th November 2020	00-24	No limit is being specified.						
WR-SR^	1st November 2020 to 5th November 2020	00-05	7250	500	6750	4073	2677	300	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1 and forced outage of 1) HVDC Talcher-Kolar pole-1 2) HVDC Bhadravati blcok-1
		05-22	7250		6750		2677	300	
		22-24	7250		6750		2677	300	
WR-SR^	6th November 2020 to 30th November 2020	00-05	8000	500	7500	4073	3427	1050	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1
		05-22	8000		7500		3427	1050	
		22-24	8000		7500		3427	1050	
SR-WR *	1st November 2020 to 30th November 2020	00-24	4600	400	4200	550	3650		

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ER-SR$^{\Delta}$	1st November 2020 to 5th November 2020	00-06	4800	250	4550	2673	1877	-1150	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1 and forced outage of 1) HVDC Talcher-Kolar pole-1 2) HVDC Bhadravati blcok-1
		06-18				2758	1792	-1150	
		18-24				2673	1877	-1150	
ER-SR$^{\Delta}$	6thNovember 2020 to 30th November 2020	00-06	5900	250	5650	2673	2977	-50	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1
		06-18				2758	2892	-50	
		18-24				2673	2977	-50	
SR-ER *	1st November 2020 to 30th November 2020	00-24	No limit is being Specified.						
ER-NER*	1st November 2020 to 30th November 2020	00-02	1900	45	1855	474	1381	700	Revised TTC/ATC due to: 1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4 x 150 MW Kameng Generation 3) Forced outage of 2x 50 MW Karbi Langpi generation of Assam 4) Incorporation of HVDC flow of 700 MW between Biswanath Chariali and Agra
		02-07	1900		1855	474	1381	700	
		07-12	1900		1855	474	1381	630	
		12-17	1900		1855	474	1381	600	
		17-18	1900		1855	474	1381	900	
		18-22	1680		1635	474	1161	680	
		22-23	1900		1855	474	1381	900	
		23-24	1900		1855	474	1381	700	
NER-ER*	1st November 2020 to 30th November 2020	00-02	1800	45	1755	42	1713	-500	
		02-07	1800		1755	42	1713	-500	
		07-12	1800		1755	42	1713	-550	
		12-18	1800		1755	42	1713	-530	
		18-22	1900		1855	42	1813	-630	
		22-23	1800		1755	42	1713	-730	
		23-24	1800		1755	42	1713	-500	
W3 zone Injection	1st November 2020 to 30th November 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) 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 willl 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

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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

^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 appropiate measures like SPS implemetation.

^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 appropiate 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**
NR*	1st November 2020 to 30th November 2020	00-06	24400 23450**	800	23600 22650**	14584 13634**	9016		STOA margin has been revised due to the following:- • Operationalization of 50 MW LTA from APL Ghadsisa (Wind) to Haryana • Revision in LTA quantum from Alfanar Bhuj (Wind) to Delhi DISCOMS from 153 MW to 179 MW • Revision in LTA quantum from SEISPPL_MP (Solar) to TDPPL, Delhi from 90 MW to 180 MW
		06-09	24400 23450**		23600 22650**	15063 14113**	8537		
		09-17	24400 23450**		23600 22650**	15063 14113**	8537		
		17-18	24400 23450**		23600 22650**	15063 14113**	8537		
		18-24	24400 23450**		23600 22650**	14584 13634**	9016		
NER*	1st November 2020 to 30th November 2020	00-02	1200	45	1155	474	681		Revised TTC/ATC due to: 1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4 x 150 MW Kameng Generation 3) Forced outage of 2x 50 MW Karbi Langpi generation of Assam 4) Incorporation of HVDC flow of 700 MW between Biswanath Chariali and Agra
		02-07	1200		1155	474	681		
		07-12	1200		1155	474	681	-70	
		12-17	1200		1155	474	681	-100	
		17-18	1200		1155	474	681	200	
		18-22	980		935	474	461	-20	
		22-23	1200		1155	474	681	200	
		23-24	1200		1155	474	681		
WR*									
SR*#	1st November 2020 to 5th November 2020	00-06	12050	750	11300	6746	4554	-1850	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1 and forced outage of 1) HVDC Talcher-Kolar pole-1 2) HVDC Bhadravati blcok-1
		06-18	12050		11300	6831	4469	-1850	
		18-24	12050		11300	6746	4554	-1850	
SR*#	6th November 2020 to 30th November 2020	00-06	13900	750	13150	6746	6404	1000	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1
		06-18	13900		13150	6831	6319	1000	
		18-24	13900		13150	6746	6404	1000	

* 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 appropiate measures like SPS implemetation.
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 appropiate measures.
WR-NR/Import of NR TTC has been calculated considering generation at Paricha TPS as 350 MW. TTC figures are subject to change with significant change in generation at Paricha TPS.

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 November 2020 to 30th November 2020	00-06	4500	700	3800	388	3412		
		06-18			3800	1584	2216		
		18-24	4500		3800	388	3412		
NER*	1st November 2020 to 30th November 2020	00-02	2500	45	2455	42	2413	200	Revised TTC/ATC due to: 1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4 x 150 MW Kameng Generation 3) Forced outage of 2x 50 MW Karbi Langpi generation of Assam 4) Incorporation of HVDC flow of 700 MW between Biswanath Chariali and Agra
		02-07	2500		2455	42	2413	200	
		07-12	2500		2455	42	2413	150	
		12-17	2500		2455	42	2413	170	
		17-18	2500		2455	42	2413	-30	
		18-22	2600		2555	42	2513	70	
		22-23	2500		2455	42	2413	-30	
		23-24	2500		2455	42	2413	200	
WR*									
SR*^	1st November 2020 to 30th November 2020	00-24	3700	400	3300	1150	2150		

* 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)

Corridor	Constraint	Applicable Revisions
WR-NR	N-1 contingency of 1000 MVA, 765/400 kV ICT at Orai will overload the other ICT	Rev 0 to 3
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev 0 to 3
ER-NR	1. N-1 contingency of 400 kV Mejia-Maithon A line will overload the other ckt. 2. N-1 contingency of 400 kV Kahalgaon-Banka line will overload the other ckt. 3. N-1 contingency of 400kV MPL- Maithon line will overload the other ckt.	Rev 0 to 3
WR-SR and ER-SR	n-1 contingency of one ckt of 765 kV Wardha - Nizamabad D/C will overload of the other ckt	Rev 0 to 3
	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.	
SR-WR	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 3
ER-NER	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Salakati - BTPS D/C	Rev 0 to 3
NER-ER	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading of 400 kV Silchar-Killing Line	Rev 0 to 3
W3 zone Injection	---	Rev 0 to 3

Limiting Constraints (Simultaneous)

		Constraint	Applicable Revisions
NR	**Import**	1. N-1 contingency of 400 kV Mejia-Maithon A line will overload the other ckt. 2. N-1 contingency of 400 kV Kahalgaon-Banka line will overload the other ckt. 3. N-1 contingency of 400kV MPL- Maithon line will overload the other ckt.	Rev 0 to 3
		N-1 contingency of 1000 MVA, 765/400 kV ICT at Orai will overload the other ICT	Rev 0 to 3
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev 0 to 3
		(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 D/C	Rev 0 to 3
	Export	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading of 400 kV Silchar-Killing Line	Rev 0 to 3
SR	**Import**	n-1 contingency of one ckt of 765 kV Wardha - Nizamabad D/C will overload of the other ckt	Rev 0 to 3
		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	
	Export	N-1 contingency of one ckt of 400 kV Kolhapur-PG - Kolhapur-MS D/C will overload of the other ckt	Rev 0 to 3
		N-1 contingency of 500 MVA ICT at 400 kV Kolhapur-MS will overload the other 2x315 MVA ICTs	

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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	28th August 2020	Whole Month	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
			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
2	28th Sep 2020	Whole Month	Revision in STOA margin due to the following:- a) Operationalization of 153 MW LTA from Alfanar, Bhuj to Delhi Discoms b) Revision in LTA quantum from RPL-SECI-II-RE (Wind, Bhachau) to Punjab and UP from 148 MW to 170 MW	WR-NR / Import of NR
3	30th Oct 2020	1st Nov to 5th Nov 2020	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1 and forced outage of 1) HVDC Talcher-Kolar pole-1 2) HVDC Bhadravati blcok-1	WR-SR /ER-SR/ Import of SR
		6th Nov to 30th Nov 2020	TTC/ATC has been revised after commissioning of HVDC Raigarh – Pugalur Pole -1	WR-SR /ER-SR/ Import of SR
		Whole Month	Revised TTC/ATC due to: 1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4 x 150 MW Kameng Generation 3) Forced outage of 2x 50 MW Karbi Langpi generation of Assam 4) Incorporation of HVDC flow of 700 MW between Biswanath Chariali and Agra	ER-NER /NER-ER/ Import/Export of NER
			STOA margin has been revised due to the following:- • Operationalization of 50 MW LTA from APL Ghadsisa (Wind) to Haryana • Revision in LTA quantum from Alfanar Bhuj (Wind) to Delhi DISCOMS from 153 MW to 179 MW • Revision in LTA quantum from SEISPPL_MP (Solar) to TDPPL, Delhi from 90 MW to 180 MW	WR-NR / Import of NR

ASSUMPTIONS IN BASECASE					
				Month : November'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	6462	5238	2840	2783
2	Haryana	7055	5863	1291	1291
3	Rajasthan	10772	8591	6466	6465
4	Delhi	4390	2984	672	672
5	Uttar Pradesh	15455	15223	8388	8216
6	Uttarakhand	1586	1453	572	500
7	Himachal Pradesh	1546	1339	242	224
8	Jammu & Kashmir	1885	1674	103	0
9	Chandigarh	239	140	0	0
10	ISGS/IPPs	21	20	17492	10342
	Total NR	49409	42527	38066	30493
II	EASTERN REGION				
1	Bihar	5270	3543	384	344
2	Jharkhand	1319	897	343	353
3	Damodar Valley Corporation	2778	2497	4539	3736
4	Orissa	3510	2815	2940	2400
5	West Bengal	6243	4932	4120	3510
6	Sikkim	112	44	0	0
7	Bhutan	169	167	410	310
8	ISGS/IPPs	-169	-167	12601	8839
	Total ER	19231	14729	25336	19491
III	WESTERN REGION				
1	Maharashtra	15755	12169	11328	8384
2	Gujarat	14507	10549	10695	8989
3	Madhya Pradesh	8975	7585	2837	2894
4	Chattisgarh	3209	2762	1744	1675
5	Daman and Diu	312	279	0	0
6	Dadra and Nagar Haveli	777	727	0	0
7	Goa-WR	526	406	0	0
8	ISGS/IPPs	4294	3129	36705	29913
	Total WR	48355	37606	63309	51855

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	8576	5276	7951	5986
2	Telangana	11920	10877	5548	4648
3	Karnataka	8486	4761	6172	3342
4	Tamil Nadu	13826	10812	6353	5252
5	Kerala	3710	2288	1623	215
6	Pondy	328	324	0	0
7	Goa-SR	51	51	0	0
8	ISGS/IPPs	0	0	13717	10412
	Total SR	46898	34388	41363	29856
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	104	65	12	8
2	Assam	1230	938	295	245
3	Manipur	181	86	0	0
4	Meghalaya	297	227	272	231
5	Mizoram	111	66	52	34
6	Nagaland	101	81	14	14
7	Tripura	238	142	73	71
8	ISGS/IPPs	145	81	2435	2194
	Total NER	2406	1686	3153	2796
	Total All India	166155	130855	171228	134491