National Load Despatch Centre

Total Transfer Capability for January 2021

Issue Date: 30th December 2020 Issue Time: 1230 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 January 2021 to 31st January 2021	00-06	2500	500	2000	195	1805		
		06-18				1281	719		
		18-24				195	1805		
WR-NR*	1st January 2021 to 31st January 2021	00-06	17850 16900**	500	17350 16400**	10735 9785**	6615		
		06-18	17850 16900**	500	17350 16400**	11124 10174**	6226		
		18-24	17850 16900**	500	17350 16400**	10735 9785**	6615		
NR-ER*	1st January 2021 to 31st January 2021	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st January 2021 to 31st January 2021	00-24	5500	300	5200	4066	1134		
W3-ER	1st January 2021 to 31st January 2021	00-24	No limit is being specified.						
ER-W3	1st January 2021 to 31st January 2021	00-24	No limit is being specified.						
WR-SR^	1st January 2021 to 31st January 2021	00-05	8000	500	7500	4073	3427		
		05-22	8000		7500		3427		
		22-24	8000		7500		3427		
SR-WR *	1st January 2021 to 31st January 2021	00-24	4600	400	4200	550	3650		

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ER-SR^	1st January 2021 to 31st January 2021	00-06	5900	250	5650	2673	2977		
		06-18				2758	2892		
		18-24				2673	2977		
SR-ER *	1st January 2021 to 31st January 2021	00-24	No limit is being Specified.						
ER-NER*	1st January 2021 to 31st January 2021	00-02	1400	45	1355	432	923		1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4x150 MW Kameng Generation 3) Commissioning of 400 kV Imphal(PG) - New Kohima - New Mariani link and associated elements
		02-07	1400		1355	432	923		
		07-12	1400		1355	432	923		
		12-17	1400		1355	432	923		
		17-21	1160		1115	432	683		
		21-24	1400		1355	432	923		
NER-ER*	1st January 2021 to 31st January 2021	00-02	2550	45	2505	42	2463		1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4x150 MW Kameng Generation 3) Commissioning of 400 kV Imphal(PG) - New Kohima - New Mariani link and associated elements
		02-07	2550		2505	42	2463		
		07-12	2550		2505	42	2463		
		12-17	2550		2505	42	2463		
		17-21	2680		2635	42	2593		
		21-24	2550		2505	42	2463		
W3 zone Injection	1st January 2021 to 31st January 2021	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

^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.

National Load Despatch Centre
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Issue Date: 30th December 2020 Issue Time: 1230 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
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 January 2021 to 31st January 2021	00-06	23350 22400**	800	22550 21600**	14801 13851**	7749		
		06-09	23350 22400**		22550 21600**	15190 14240**	7360		
		09-17	23350 22400**		22550 21600**	15190 14240**	7360		
		17-18	23350 22400**		22550 21600**	15190 14240**	7360		
		18-24	23350 22400**		22550 21600**	14801 13851**	7749		
NER*	1st January 2021 to 31st January 2021	00-02	1400	45	1355	432	923		1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4x150 MW Kameng Generation 3) Commissioning of 400 kV Imphal(PG) - New Kohima - New Mariani link and associated elements
		02-07	1400		1355	432	923		
		07-12	1400		1355	432	923		
		12-17	1400		1355	432	923		
		17-21	1160		1115	432	683		
		21-24	1400		1355	432	923		
WR*									
SR*#	1st January 2021 to 31st January 2021	00-06	13900	750	13150	6746	6404		
		06-18	13900		13150	6831	6319		
		18-24	13900		13150	6746	6404		

* 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 January 2021 to 31st January 2021	00-06	4500	700	3800	388	3412		
		06-18			3800	1584	2216		
		18-24	4500		3800	388	3412		
NER*	1st January 2021 to 31st January 2021	00-02	2550	45	2505	42	2463		1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4x150 MW Kameng Generation 3) Commissioning of 400 kV Imphal(PG) - New Kohima - New Mariani link and associated elements
		02-07	2550		2505	42	2463		
		07-12	2550		2505	42	2463		
		12-17	2550		2505	42	2463		
		17-21	2680		2635	42	2593		
		21-24	2550		2505	42	2463		
WR*									
SR*^	1st January 2021 to 31st January 2021	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. Inter-regional flow pattern towards NR	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
	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.	
WR-SR and ER-SR	N-1 of one ICT of 765/400 kV, 1500 MVA ICT at Nizamabad will overload the other ICT	Rev- 1 to 3
	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 2
	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Balipara-Sonabil(200 MW)	Rev- 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. Inter-regional flow pattern towards NR	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
		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	
	Import	N-1 of one ICT of 765/400 kV, 1500 MVA ICT at Nizamabad will overload the other ICT	Rev- 1 to 3
		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 Oct 2020	Whole Month	TTC/ATC after commissioning of HVDC Raigarh – Pugalur Pole -1	WR-SR/ER-SR/Import of SR
			STOA margin 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
2	28th Dec 2020	Whole Month	a) Revision in STOA margin due to change in LTA Quantum from RWE_APL2_SECI-III (Ghadsisa, Wind) to Haryana from earlier 95 MW to 160 MW.	WR-NR/Import of NR
			b) Revision in TTC/ATC due to change in direction of HVDC BNC-AGRA as per grid requirement	
3	30th Dec 2020	Whole Month	1) Change in Load-Generation of NER 2) Addition of 2x150 MW out of 4x150 MW Kameng Generation 3) Commissioning of 400 kV Imphal(PG) - New Kohima - New Mariani link and associated elements	ER-NER/NER-ER/NER IMPORT & EXPORT

ASSUMPTIONS IN BASECASE					
				Month : January 2021	
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	7082	5944	3303	3219
2	Haryana	6885	6321	1819	1819
3	Rajasthan	11247	11020	7767	7739
4	Delhi	5022	3487	672	672
5	Uttar Pradesh	14329	15067	8642	8612
6	Uttarakhand	1773	1733	886	604
7	Himachal Pradesh	1015	861	190	139
8	Jammu & Kashmir	1494	1461	109	109
9	Chandigarh	251	159	0	0
10	ISGS/IPPs	19	19	14286	11153
	Total NR	49117	46071	37675	34067
II	EASTERN REGION				
1	Bihar	4849	3097	352	344
2	Jharkhand	1502	1034	378	353
3	Damodar Valley Corporation	2755	2556	4353	3476
4	Orissa	3582	2895	2946	2400
5	West Bengal	6439	4457	4879	3510
6	Sikkim	112	45	0	0
7	Bhutan	162	168	270	214
8	ISGS/IPPs	-162	-168	12566	8973
	Total ER	19239	14083	25743	19269
III	WESTERN REGION				
1	Maharashtra	18778	13739	12230	9486
2	Gujarat	15979	11721	11083	7999
3	Madhya Pradesh	15354	7101	7911	4031
4	Chattisgarh	4046	2689	2384	1953
5	Daman and Diu	339	292	0	0
6	Dadra and Nagar Haveli	814	774	0	0
7	Goa-WR	625	390	0	0
8	ISGS/IPPs	4017	3424	41810	30230
	Total WR	59952	40130	75417	53699

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	9090	5024	6476	5986
2	Telangana	9542	10582	4884	4648
3	Karnataka	10315	5023	8110	3639
4	Tamil Nadu	14023	10332	6537	5162
5	Kerala	3838	2287	1665	95
6	Pondy	303	309	0	0
7	Goa-SR	47	48	0	0
8	ISGS/IPPs	0	0	13941	10412
	Total SR	47158	33605	41613	29942
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	105	66	12	8
2	Assam	1192	861	288	243
3	Manipur	224	109	0	0
4	Meghalaya	322	266	230	189
5	Mizoram	117	67	48	28
6	Nagaland	121	94	8	8
7	Tripura	225	135	75	75
8	ISGS/IPPs	139	85	2580	2126
	Total NER	2444	1683	3241	2676
	Total All India	177771	135487	183689	139653