# National Load Despatch Centre Total Transfer Capability for February 2020

Issue Date: 31st January 2020 Issue Time: 1200 hrs Revision No. 5

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 February 2020 to 29th February 2020	00-06 06-18 18-24	2500	500	2000	195 250 195	1805 1750 1805		
	·	00-06	14900 13950**	500	14400 13450**	10275 9325**	4125 4125**	-1250	
	1st February 2020 to 5th February 2020	06-18	14900 13950** 14900	500	14400 13450** 14400	9714** 10275	3736 3736** 4125	-1250	TTC/ATC reduced due to planned outage of HVDC Champa - Kurukshetra Pole - 3
WR-NR*		18-24	13950**	500	13450**	9325**	4125**	-1250	
		00-06	16150 15200**	500	15650 14700**	9325**	5375**		
	6th February 2020 to 29th February 2020	06-18	16150 15200**	500	15650 14700**	10664 9714**	4986 4986**		
		18-24	16150 15200**	500	15650 14700**	10275 9325**	5375 5375**		
	1st February	00-06	2000	I	1800	193	1607	I	
NR-ER*	2020 to 29th	06-18	2000	200	1800	303	1607 1497	-	
TAIX-LIX	February 2020	18-24	2000	- 200	1800	193	1607	-	
ER-NR*	1st February 2020 to 29th February 2020	00-24	5250	300	4950	4050	900		
W3-ER	1st February 2020 to 29th February 2020	00-24		No limit is being specified.					
ER-W3	1st February 2020 to 29th February 2020	00-24		No limit is being specified.					
	1et Fohmom	00-05	6950		6450		2415	1400	TTC/ATC revised often
WR-SR	1st February 2020 to 29th	05-22	6950	500	6450	4035	2415	1400	TTC/ATC revised after commissioning of 765 kV
WK-SK	February 2020	22-24		300		4033			
SR-WR*	1st February 2020 to 29th February 2020	00-24	0,200	6950 6450 2415 1400 Vemagiri - C'peta D/C  No limit is being Specified.					

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	1st February	00-06				2663	3037	1000	TTC/ATC revised after	
ER-SR	2020 to 29th	06-18	5950	5950 250	5700	2748	2952	1000	commissioning of 765 kV	
	February 2020	18-24				2663	3037	1000	Vemagiri - C'peta D/C	
SR-ER *	1st February 2020 to 29th February 2020	00-24		No limit is being Specified.						
		00.17	1.570		1525		1101	210	D · · · · · · · · · · · · · · · · · · ·	
	1st February	00-17	1570	45	1525	334	1191	310	Revision in TTC/ATC due to the following:-	
ER-NER	2020 to 29th February 2020	17-23	1150		1105		771	70	- I and wing.	
	residary 2020	23-24	1570		1525		1191	310	a) Addition of 400/220/33 kV, 315	
	1st February	00-17	2770		2725	2725		2725	370	MVA ICT-I at BgTPP b) Addition of 132 kV Imphal (PG)-
NER-ER	2020 to 29th	17-23	2700	45	2655	0	2655	250	Imphal (MA) III Line c) Change in Load-Generation of	
	February 2020	23-24	2770		2725		2725	370	NER.	
W3 zone Injection	1st February 2020 to 29th February 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 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
		00-06	20400		19600	14325	5275	-1700	
		06-09	19450** 21900		18650** 21100	13375** 14714	6386	-1850	
	1st February 2020 to 5th	09-17	20950** 20400	800	20150** 19600	13764** 14714	4886	-1700	TTC/ATC reduced due to planned outage of HVDC Champa -
	February 2020		19450** 19850		18650** 19050	13764** 14714	4000	-1700	Kurukshetra Pole - 3
		17-18	18900** 19850		18100** 19050	13764** 14325	4336	-1700	
NR		18-24	18900**		18100**	13375**	4725	-1700	
		00-06	00-06 22100 00-06 21150** 23750 06-09 22800**	800	21300 20350**	14325 13375**	6975		
		06-09			22950 22000**	14714 13764**	8236		
	6th February 2020 to 29th	h 09-17	22100		21300	14714	6586		
	February 2020	17-18	21150** 21550		20350**	13764** 14714	6036		
		18-24	20600** 21550		19800** 20750	13764** 14325	6425		_
		10-24	20600**		19800**	13375**	0423		
		00-17	1570		1525		1191	310	Revision in TTC/ATC due to the following:-
NER	1st February 2020 to 29th February 2020	17-23	1150	45	1105	334	771	70	a) Addition of 400/220/33 kV, 315 MVA ICT-I at BgTPP b) Addition of 132 kV Imphal (PG)-Imphal (MA) III Line
		23-24	24 1570		1525		1191	310	c) Change in Load-Generation of NER.
WR									
	1st February	00-06	12900		12150	6698	5452	2400	TTC/ATC revised after
SR	2020 to 29th	06-18	12900	750	12150	6783	5367	2400	commissioning of 765 kV
	February 2020	18-24	12900		12150	6698	5452	2400	Vemagiri - C'peta D/C

\* 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-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.

#### **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 February	00-06	4500		3800	388	3412		
NR*	2020 to 29th	06-18	4300	700	3800	553	3247		
	February 2020	18-24	4500		3800	388	3412		
	1st February 2020 to 29th February 2020	00-17	2770	45	2725	0	2725	370	Revision in TTC/ATC due to the following:-
NER		17-23	2700		2655		2655	250	a) Addition of 400/220/33 kV, 315 MVA ICT-I at BgTPP b) Addition of 132 kV Imphal
		23-24	2770		2725		2725	370	(PG)-Imphal (MA) III Line c) Change in Load-Generation of NER.
WR									
SR *	1st February 2020 to 29th February 2020	00-24	No limit is being Specified.						

<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

## **Limiting Constraints (Corridor wise)**

		<b>Applicable Revisions</b>	
Corridor	Constraint		
WR-NR	n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overlaoding of 765 kV Aligarh - Gr. Noida Line	Rev- 0 to 5	
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev- 0 to 5	
ER-NR	<ol> <li>N-1 contingencies of 400 kv Mejia-Maithon A S/C</li> <li>N-1 contingencies of 400 kv Kahalgaon-Banka S/C</li> <li>N-1 contingencies of 400kV MPL- Maithon S/C</li> </ol>	Rev- 0 to 5	
	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	Rev- 0 to 4	
WR-SR and ER-	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	Rev- 5	
	Low Voltage at Gazuwaka (East) Bus.		
	N-1 contingency of 400 kV Silcher - Azara will lead to high Loading of 400 kV Silcher Killing Line	Rev- 0 to 4	
ER-NER	<ul> <li>a) N-1 contingency of 400 kV Azara-Bongaigaon</li> <li>b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)</li> </ul>	Rev- 5	
	N-1 contingency of 400 kV Bongaigaon - Alipurduar I/II will lead to high Loading of 400 kV Silchar-Killing line	Rev- 0 to 4	
	<ul><li>a) N-1 contingency of 400 kV Silchar- Azara</li><li>b) High Loading of 400 kV Silchar-Killing line</li></ul>	Rev- 5	
W3 zone Injection		Rev- 0 to 5	

## **Limiting Constraints (Simultaneous)**

			<b>Applicable Revisions</b>		
	Import	<ol> <li>N-1 contingencies of 400 kv Mejia-Maithon A S/C</li> <li>N-1 contingencies of 400 kv Kahalgaon-Banka S/C</li> <li>N-1 contingencies of 400kV MPL- Maithon S/C</li> </ol>	Rev- 0 to 5		
NR	-	n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overlaoding of 765 kV Aligarh - Gr. Noida Line	Rev- 0 to 5		
	Export	(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 5		
	_	N-1 contingency of 400 kV Silcher - Azara will lead to high Loading of 400 kV Silcher Killing Line	Rev- 0 to 4		
NER	Import	<ul> <li>a) N-1 contingency of 400 kV Azara-Bongaigaon</li> <li>b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)</li> </ul>	Rev- 5		
NEK	Export	N-1 contingency of 400 kV Bongaigaon - Alipurduar I/II will lead to high Loading of 400 kV Silchar-Killing line	Rev- 0 to 4		
		<ul><li>a) N-1 contingency of 400 kV Silchar- Azara</li><li>b) High Loading of 400 kV Silchar-Killing line</li></ul>	Rev- 5		
		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	Rev- 0 to 4		
SR	Import	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	Rev- 5		
		Low Voltage at Gazuwaka (East) Bus			

### National Load Despatch Centre Total Transfer Capability for February 2020

Revision No	Date of Period of Revision		Reason for Revision/Comment	Corridor Affected	
1	18th November 2019	Whole Month	Revised STOA margin due to 4.2 MW LTA and 19.76 MW MTOA to Assam from GIWEL	ER-NER/Import of NER	
2	29th November 2019	Whole Month	Revised STOA margin due to the following.  Operationalization of following LTAs:-  a) AGEMPL to UPPCL – 40 MW b) GIWEL_SECI-III_RE to Punjab – 112 MW c) SEISPPL_MP to TPDDL – 90 MW  Revision in LTA quantum of following:-  a) INOX to UPPCL – 100 MW to 50 MW b) RPL-SECI-II-RE to UPPCL – 34.5 MW to 73.8 MW c) RPL-SECI-II-RE to Punjab – 73.8 MW to 100 MW	WR-NR/Import of NR	
3	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		
4	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	
5	1st Feb 2020 to 5th Feb 2020 Whole Month 2020 Whole Month		Reduction in TTC/ATC due to planned outage of HVDC Champa - Kurukshetra Pole - 3  Increment in TTC/ATC after commissioning of 765 kV Vemagiri - C'peta D/C  Revision in TTC/ATC due to the following:- a) Addition of 400/220/33 kV, 315 MVA ICT-I at BgTPP b) Addition of 132 kV Imphal (PG)-Imphal (MA) III Line c) Change in Load-Generation of NER.	WR-NR/Import of NR WR-SR/ER-SR and Import of SR ER-NER/NER- ER/Import and Export of NER	

ASSUN	IPTIONS IN BASECASE					
				Month : February'20		
S.No.	Name of State/Area		Load	Generation		
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)	
ı	NORTHERN REGION					
1	Punjab	7599	5890	3210	3062	
2	Haryana	7641	6234	1734	1734	
3	Rajasthan	12211	13190	7832	7917	
4	Delhi	4871	3148	718	718	
5	Uttar Pradesh	15022	11878	7291	7060	
6	Uttarakhand	1932	1740	795	516	
7	Himachal Pradesh	1611	1299	326	185	
8	Jammu & Kashmir	2312	1548	629	582	
9	Chandigarh	280	169	0	0	
10	ISGS/IPPs	27	26	18744	12493	
	Total NR	53505	45123	41277	34265	
П	EASTERN REGION					
1	Bihar	4630	3169	180	180	
2	Jharkhand	1157	921	362	319	
3	Damodar Valley Corporation	2639	2767	4562	3775	
4	Orissa	4109	2919	3433	2328	
5	West Bengal	7089	5422	4922	3829	
6	Sikkim	228	289	0	0	
7	Bhutan	181	171	336	281	
8	ISGS/IPPs	642	653	13227	9896	
	Total ER	20675	16312	27020	20608	
Ш	WESTERN REGION					
1	Maharashtra	18648	11525	14482	8429	
2	Gujarat	14855	11988	9621	8308	
3	Madhya Pradesh	11528	7570	4796	3561	
4	Chattisgarh	4163	2967	2130	1960	
5	Daman and Diu	334	281	0	0	
6	Dadra and Nagar Haveli	819	727	0	0	
7	Goa-WR	539	382	0	0	
8	ISGS/IPPs	5215	4041	42739	34520	
	Total WR	56100	39479	73768	56778	

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	9394	7471	6562	5263	
2	Telangana	11208	9167	5151	4651	
3	Karnataka	9983	6396	7776	3862	
4	Tamil Nadu	15174	12676	6747	5897	
5	Kerala	3993	2952	1557	690	
6	Pondy	334	294	0	0	
7	Goa-SR	65	58	0	0	
8	ISGS/IPPs	0	0	17375	12129	
	Total SR	50152	39014	45168	32492	
V	NORTH-EASTERN REGION					
1	Arunachal Pradesh	144	89	0	0	
2	Assam	1538	1084	234	206	
3	Manipur	187	93	0	0	
4	Meghalaya	331	202	200	115	
5	Mizoram	105	67	32	20	
6	Nagaland	125	79	12	0	
7	Tripura	210	128	99	99	
8	ISGS/IPPs	0	0	2016	1619	
	Total NER	2640	1742	2593	2058	
	Total All India	183654	142178	190386	146626	