National Load Despatch Centre
Total Transfer Capability for April 2020

Issue Date: 22nd April 2020 Issue Time: 1230 hrs Revision No. 8

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 April 2020 to 30th April 2020	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st April 2020 to 30th April 2020	00-06	16150 15200**	500	15650 14700**	10219 9269**	5431		
		06-18	16150 15200**	500	15650 14700**	10608 9658**	5042		
		18-24	16150 15200**	500	15650 14700**	10219 9269**	5431		
NR-ER*	1st April 2020 to 30th April 2020	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st April 2020 to 30th April 2020	00-24	5250	300	4950	4050	900		
W3-ER	1st April 2020 to 30th April 2020	00-24	No limit is being specified.						
ER-W3	1st April 2020 to 30th April 2020	00-24	No limit is being specified.						
WR-SR	1st April 2020 to 22nd April 2020	00-05	6950	500	6450	4035	2415		
		05-22	6950		6450		2415		
		22-24	6950		6450		2415		
	23rd April 2020	00-05	6300	500	5800	4035	1765	-650	TTC/ATC revised due to power restriction on HVDC Bhadrawati on account of filter maintenance
		05-22	6300		5800		1765	-650	
		22-24	6300		5800		1765	-650	
	24th April 2020 to 30th April 2020	00-05	6950	500	6450	4035	2415		
		05-22	6950		6450		2415		
		22-24	6950		6450		2415		
SR-WR *	1st April 2020 to 30th April 2020	00-24	No limit is being Specified.						
ER-SR	1st April 2020 to 5th April 2020	00-06	5650	250	5400	2663	2737		
		06-18				2748	2652		
		18-24				2663	2737		
	6th April 2020 to 8th April 2020	00-06	5650	250	5400	2663	2737		
		06-18				2748	2652		
		18-24				2663	2737		
	9th April 2020 to 22nd April 2020	00-06	5650	250	5400	2663	2737		
		06-18				2748	2652		
		18-24				2663	2737		
	23rd April 2020	00-06	5600	250	5350	2663	2687	-50	TTC/ATC revised due to power restriction on HVDC Bhadrawati on account of filter maintenance
		06-18				2748	2602	-50	
		18-24				2663	2687	-50	
	24th April 2020 to 28th April 2020	00-06	5650	250	5400	2663	2737		
		06-18				2748	2652		
		18-24				2663	2737		
	29th April 2020 to 30th April 2020	00-06	5950	250	5700	2663	3037		
		06-18				2748	2952		
		18-24				2663	3037		
SR-ER *	1st April 2020 to 30th April 2020	00-24	No limit is being Specified.						
	1st April 2020 to 3rd April 2020	00-02	1330	45	1285	289	996		
		02-07	1330		1285	289	996		
		07-12	1330		1285	334	951		
		12-17	1330		1285	334	951		
		17-18	1330		1285	334	951		

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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
ER-NER	2020	18-22	1120		1075	289	786		
		22-23	1330		1285	289	996		
		23-24	1330		1285	289	996		
	4th April 2020	00-07	1330	45	1285	289	996		
		07-09	1330		1285	334	951		
		09-12	1010		965	334	631		
		12-17	1010		965	334	631		
		17-18	1010		965	334	631		
		18-22	800		755	289	466		
		22-23	1010		965	289	676		
		23-24	1010		965	289	676		

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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
	5th April 2020 to 30th April 2020	00-02	1330	45	1285	289	996		
		02-07	1330		1285	289	996		
		07-12	1330		1285	334	951		
		12-17	1330		1285	334	951		
		17-18	1330		1285	334	951		
		18-22	1120		1075	289	786		
		22-23	1330		1285	289	996		
		23-24	1330		1285	289	996		
NER-ER	1st April 2020 to 3rd April 2020	00-09	2110	45	2065	0	2065		
		09-18	2110		2065		2065		
		18-22	2400		2355		2355		
		22-24	2110		2065		2065		
	4th April 2020	00-09	2110	45	2065	0	2065		
		09-18	1950		1905		1905		
		18-22	2100		2055		2055		
		22-24	1950		1905		1905		
	5th April 2020 to 30th April 2020	00-09	2110	45	2065	0	2065		
		09-18	2110		2065		2065		
		18-22	2400		2355		2355		
		22-24	2110		2065		2065		
W3 zone Injection	1st April 2020 to 30th April 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

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.

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 April 2020 to 30th April 2020	00-06	21400 20450**	800	20600 19650**	14269 13319**	6331		
		06-09	21400 20450**		20600 19650**	14658 13708**	5942		
		09-17	21400 20450**		20600 19650**	14658 13708**	5942		
		17-18	21400 20450**		20600 19650**	14658 13708**	5942		
		18-24	21400 20450**		20600 19650**	14269 13319**	6331		
NER	1st April 2020 to 3rd April 2020	00-02	1330	45	1285	289	996		
		02-07	1330		1285	289	996		
		07-12	1330		1285	334	951		
		12-17	1330		1285	334	951		
		17-18	1330		1285	334	951		
		18-22	1120		1075	289	786		
		22-23	1330		1285	289	996		
		23-24	1330		1285	289	996		
	4th April 2020	00-07	1330	45	1285	289	996		
		07-09	1330		1285	334	951		
		09-12	1010		965	334	631		
		12-17	1010		965	334	631		
		17-18	1010		965	334	631		
		18-22	800		755	289	466		
		22-23	1010		965	289	676		
		23-24	1010		965	289	676		
	5th April 2020 to 30th April 2020	00-02	1330	45	1285	289	996		
		02-07	1330		1285	289	996		
		07-12	1330		1285	334	951		
		12-17	1330		1285	334	951		
		17-18	1330		1285	334	951		
		18-22	1120		1075	289	786		
		22-23	1330		1285	289	996		
		23-24	1330		1285	289	996		

WR									
SR	1st April 2020 to 5th April 2020	00-06	12600	750	11850	6698	5152		
		06-18	12600		11850	6783	5067		
		18-24	12600		11850	6698	5152		
	6th April 2020 to 8th April 2020	00-06	12600	750	11850	6698	5152		
		06-18	12600		11850	6783	5067		
		18-24	12600		11850	6698	5152		
	9th April 2020 to 22nd April 2020	00-06	12600	750	11850	6698	5152		
		06-18	12600		11850	6783	5067		
		18-24	12600		11850	6698	5152		
	23rd April 2020	00-06	11900	750	11150	6698	4452	-700	TTC/ATC revised due to power restriction on HVDC Bhadrawati on account of filter maintenance work
		06-18	11900		11150	6783	4367	-700	
		18-24	11900		11150	6698	4452	-700	
	24th April 2020 to 28th April 2020	00-06	12600	750	11850	6698	5152		
		06-18	12600		11850	6783	5067		
		18-24	12600		11850	6698	5152		
	29th April 2020 to 30th April 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 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.

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 April 2020 to 30th April 2020	00-06	4500	700	3800	388	3412		
		06-18			3800	553	3247		
		18-24	4500		3800	388	3412		
NER	1st April 2020 to 3rd April 2020	00-09	2110	45	2065	0	2065		
		09-18	2110		2065		2065		
		18-22	2400		2355		2355		
		22-24	2110		2065		2065		
	4th April 2020	00-09	2110	45	2065	0	2065		
		09-18	1950		1905		1905		
		18-22	2100		2055		2055		
		22-24	1950		1905		1905		
	5th April 2020 to 30th April 2020	00-09	2110	45	2065	0	2065		
		09-18	2110		2065		2065		
		18-22	2400		2355		2355		
		22-24	2110		2065		2065		
WR									
SR *	1st April 2020 to 30th April 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)

Corridor	Constraint	Applicable Revisions
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 8
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev- 0 to 8
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 8
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 to 1
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev- 0 to 1
	Low Voltage at Gazuwaka (East) Bus.	Rev- 0 to 1
	n-1 contingency of one ckt of 765 kV Wardha - Nizamabad D/C will overload of the other ckt	Rev- 2 to 8
	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.	
	Overloading of 400/220 kV ICT - I at Jeypore in case of tripping of 400 kV Jeypore - Indravati line	Rev -4 to 8
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 4, 6 to 8
	a) N-1 contingency of 400 kV Bongaigaon-Killing b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev -5
NER-ER	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading in Meghalya Internal Power System	Rev- 0 to 4, 6 to 8
	a) N-1 contingency of 400 kV Bongaigaon-Killing b) High Loading of 220 kV Killing-Misa Double circuit (200 MW)	Rev -5
W3 zone Injection	---	-

Limiting Constraints (Simultaneous)

		Constraint	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	Rev- 0 to 8
		n-1 contingency of 765 kV Aligarh - Jhatikara Line will lead to overlaoding of 765 kV Aligarh - Gr. Noida Line	Rev- 0 to 8
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev- 0 to 8
		(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)	Rev- 0 to 4, 6 to 8
		a) N-1 contingency of 400 kV Bongaigaon-Killing b) High Loading of 220 kV Salakati-BTPS Double circuit (200 MW)	Rev -5
	Export	a) N-1 contingency of 400 kV Silchar- Azara line b) High Loading in Meghalya Internal Power System	Rev- 0 to 4, 6 to 8
		a) N-1 contingency of 400 kV Bongaigaon-Killing b) High Loading of 220 kV Killing-Misa Double circuit (200 MW)	Rev -5
SR	**Import**	n-1 contingency of 2x315 MVA, 400/220 kV ICTs at Mardam will lead to overloading of the second ICT	Rev- 0 to 1
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev- 0 to 1
		Low Voltage at Gazuwaka (East) Bus.	Rev- 0 to 1
		n-1 contingency of one ckt of 765 kV Wardha - Nizamabad D/C will overload of the other ckt	Rev- 2 to 6, 8
		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	
		Overloading of 400/220 kV ICT - I at Jeypore in case of tripping of 400 kV Jeypore - Indravati line	Rev -4 to 6, 8

National Load Despatch Centre
Total Transfer Capability for April 2020

Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	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
2	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
3	30th March 2020	Whole Month	1) Revision in STOA margin due to the following:- a) Operationalization of 50 MW LTA from AGEMPL (Wind, Bhuj) to Punjab b) Completion of 108 MW MTOA from SKS to NPCL (UP) 2) Revision in TTC/ATC due to change in inter-regional flow pattern towards NR.	WR-NR/NR Import
			Revision in TTC/ATC due to the following:- a) Long Outage of Palatana Module-1 b) Addition of 400/220/33 kV, 315 MVA ICT-I at BgTPP c) Addition of 132 kV Imphal (PG)-Imphal (MA) III d) Change in Load-Generation of NER	ER-NER/NER-ER/Import & Export of NER
4	31st March 2020	1st April 2020 to 5th April 2020	Reduction in TTC/ATC due to forced outage of 400/220 KV ICT-II at Jeypore	ER-SR/Import of SR
5	3rd April 2020	4th April 2020	TTC/ATC Revised due to planned shutdown of 400 kV Bongaigaon- Azara	ER-NER/NER-ER/Import & Export of NER
6	5th April 2020	6th April 2020 to 8th April 2020	Reduction in TTC/ATC due to extension of forced outage of 400/220 KV ICT-II at Jeypore	ER-SR/Import of SR
7	8th April 2020	9th April 2020 to 28th April 2020	Reduction in TTC/ATC due to extension of forced outage of 400/220 KV ICT-II at Jeypore	ER-SR/Import of SR
8	22nd April 2020	23rd April 2020	TTC/ATC revised due to power restriction on HVDC Bhadrawati on account of filter maintenance work	ER-SR/Import of SR

ASSUMPTIONS IN BASECASE					
				Month : April'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	7702	5968	3522	3309
2	Haryana	7390	5329	1651	1644
3	Rajasthan	10786	12134	7086	6433
4	Delhi	5679	4623	675	672
5	Uttar Pradesh	15431	12731	7254	7153
6	Uttarakhand	1890	1382	863	719
7	Himachal Pradesh	1538	1190	497	403
8	Jammu & Kashmir	2284	1832	666	665
9	Chandigarh	245	138	0	0
10	ISGS/IPPs	26	26	19364	13442
	Total NR	52970	45353	41579	34441
II	EASTERN REGION				
1	Bihar	4746	3177	199	180
2	Jharkhand	1311	973	398	392
3	Damodar Valley Corporation	3060	2794	4745	3825
4	Orissa	4367	2850	3448	2012
5	West Bengal	8390	6304	5508	4242
6	Sikkim	225	289	0	0
7	Bhutan	178	166	599	621
8	ISGS/IPPs	645	658	13028	9892
	Total ER	22920	17213	27924	21164
III	WESTERN REGION				
1	Maharashtra	19910	16269	15889	13274
2	Gujarat	15541	13625	10105	9068
3	Madhya Pradesh	9082	7924	4221	4438
4	Chattisgarh	4306	3862	2109	2200
5	Daman and Diu	339	297	0	0
6	Dadra and Nagar Haveli	861	749	0	0
7	Goa-WR	608	422	0	0
8	ISGS/IPPs	5337	4740	41352	37204
	Total WR	55984	47888	73676	66185

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	9378	6005	6407	4555
2	Telangana	9553	8086	5070	4644
3	Karnataka	10414	8713	7716	5927
4	Tamil Nadu	16572	14843	7184	6247
5	Kerala	4222	2854	1689	581
6	Pondy	331	278	0	0
7	Goa-SR	65	54	0	0
8	ISGS/IPPs	0	0	18268	12179
	Total SR	50536	40832	46333	34134
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	122	88	8	8
2	Assam	1650	1087	217	216
3	Manipur	161	69	0	0
4	Meghalaya	337	224	66	106
5	Mizoram	90	46	0	21
6	Nagaland	86	73	0	0
7	Tripura	431	365	77	77
8	ISGS/IPPs	82	80	1665	1648
	Total NER	2959	2032	2034	2076
	Total All India	185370	153319	191547	157999