National Load Despatch Centre

Total Transfer Capability for September 2021

Issue Date: 24th August, 2021 Issue Time: 1800 hrs Revision No. 6

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 September 2021 to 30th September 2021	00-06	2500	500	2000	378	1622		
		06-18				1206	794		
		18-24				378	1622		
WR-NR*	1st September 2021 to 30th September 2021	00-06	19500 18550**	1000	18500 17550**	11267 10317**	7233	1050	Revised TTC/ATC due to commissioning of 765kV Vindhyachal-Varanasi D/C
		06-18	19500 18550**	1000	18500 17550**	11656 10706**	6844	1050	
		18-24	19500 18550**	1000	18500 17550**	11267 10317**	7233	1050	
NR-ER*	1st September 2021 to 30th September 2021	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	603	1197		
		18-24	2000		1800	193	1607		
ER-NR*	1st September 2021 to 30th September 2021	00-24	5900	400	5500	4280	1220	-950	Revised TTC/ATC due to commissioning of 765kV Vindhyachal-Varanasi D/C
W3-ER	1st September 2021 to 30th September 2021	00-24	No limit is being specified.						
ER-W3	1st September 2021 to 30th September 2021	00-24	No limit is being specified.						
WR-SR^	1st September 2021 to 30th September 2021	00-05	9350	650	8700	3596	5104		
		05-22	9350		8700		5104		
		22-24	9350		8700		5104		
SR-WR*	1st September 2021 to 30th September 2021	00-09	6000	400	5600	845	4755		
		09-16	5100	400	4700	845	3855		
		16-24	6000	400	5600	845	4755		
ER-SR^	1st September 2021 to 30th September 2021	00-06	5750	350	5400	2672	2728		
		06-18				2757	2643		
		18-24				2672	2728		
SR-ER *	1st September 2021 to 30th September 2021	00-24	No limit is being Specified.						
ER-NER*	1st September 2021 to 30th September 2021	00-02	730	45	685	474	211		
		02-07	730		685	474	211		
		07-12	810		765	474	291		
		12-18	740		695	474	221		
		18-22	590		545	474	71		
		22-24	730		685	474	211		
NER-ER*	1st September 2021 to 30th September 2021	00-02	3500	45	3455	83	3372		
		02-07	3500		3455	83	3372		
		07-12	3490		3445	83	3362		
		12-18	3440		3395	83	3312		
		18-22	3390		3345	83	3262		
		22-24	3500		3455	83	3372		

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W3 zone Injection	1st September 2021 to 30th September 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.

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 September 2021 to 30th September 2021	00-06	25400 24450**	1400	24000 23050**	15547 14597**	8453	100	Revised TTC/ATC due to commissioning of 765kV Vindhyachal-Varanasi D/C
		06-09	25400 24450**		24000 23050**	15936 14986**	8064	100	
		09-17	25400 24450**		24000 23050**	15936 14986**	8064	100	
		17-18	25400 24450**		24000 23050**	15936 14986**	8064	100	
		18-24	25400 24450**		24000 23050**	15547 14597**	8453	100	
NER*	1st September 2021 to 30th September 2021	00-02	730	45	685	474	211		
		02-07	730		685	474	211		
		07-12	810		765	474	291		
		12-18	740		695	474	221		
		18-22	590		545	474	71		
		22-24	730		685	474	211		
WR*									
SR*#	1st September 2021 to 30th September 2021	00-06	15100	1000	14100	6270	7830		
		06-18	15100		14100	6355	7745		
		18-24	15100		14100	6270	7830		

* 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 September 2021 to 30th September 2021	00-06	4500	700	3800	571	3229		
		06-18				1809	1991		
		18-24				571	3229		
NER*	1st September 2021 to 30th September 2021	00-02	3500	45	3455	83	3372		
		02-07	3500		3455	83	3372		
		07-12	3490		3445	83	3362		
		12-18	3440		3395	83	3312		
		18-22	3390		3345	83	3262		
		22-24	3500		3455	83	3372		
WR*									
SR*^	1st September 2021 to 30th September 2021	00-09	5500	400	5100	1564	3536		
		09-16	4600	400	4200	1564	2636		
		16-24	5500	400	5100	1564	3536		

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 1500 MVA, 765/400 kV ICT at Agra will overload the other ICT	Rev- 0
	N-1 contingency of 1000 MVA, 765/400 kV ICT at Orai will overload the other ICT	Rev- 1 to 5
	N-1 contingency of one ckt of 765 kV Vindhyachal-Varanasi will overload the other circuit	Rev- 6
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev- 0 to 6
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
	Inter-regional flow pattern towards NR	Rev- 1 to 6
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- 0 to 6
	N-1 of one ckt of 765kV Angul-Srikakulam D/C will overload the other circuit	
	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
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- 4 to 6
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 6
NER-ER	a) N-1 contingency of 220 kV Salakati - Alipurduar I or II b) High Loading of 220 kV Salakati - Alipurduar II or I	Rev- 0 to 6
W3 zone Injection	---	Rev- 0 to 6

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
		Inter-regional flow pattern towards NR	Rev- 1 to 6
		N-1 contingency of 1500 MVA, 765/400 kV ICT at Agra will overload the other ICT	Rev- 0
		N-1 contingency of 1000 MVA, 765/400 kV ICT at Orai will overload the other ICT	Rev- 1 to 5
		N-1 contingency of one ckt of 765 kV Vindhyachal-Varanasi will overload the other circuit	Rev- 6
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev- 0 to 6
		(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 6
	Export	a) N-1 contingency of 220 kV Salakati - Alipurduar I or II b) High Loading of 220 kV Salakati - Alipurduar II or I	Rev- 0 to 6
SR	Import	N-1 of one ICT of 765/400 kV, 1500 MVA ICT at Nizamabad will overload the other ICT	Rev- 0 to 6
		N-1 of one ckt of 765kV Angul-Srikakulam D/C will overload the other circuit	
		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	
	Export	a) N-1 of Pune Kharghar would overload 400 kV Pune-Kalwa. b) Overloading of Kolhapur (PG)-Kolhapur (MS) under outage of other circuit & overloading of 400/220 kV NSPCL ICT under outage of the other ICT.	Rev- 4 to 6

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Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	4th June 2021	Whole month	a) Reversal in HVDC APD-Agra flow b) Commissioning of 765kV Ajmer-Phagi D/C and 765kV G.Noida-Fatehabad S/C	WR-NR, ER-NR & NR Import
2	28th June 2021	Whole month	a) Revised STOA margin due to decrease in LTA allocations by 5 MW (90 MW to 85 MW) from AWEK1L to UPPCL b) Revised STOA margin due to increase in LTA allocations by 21 MW (19 MW to 40 MW) from AWEK1L to Chandigarh	WR-NR/NR Import
			Revised STOA margin due to increase in LTA allocations by 10 MW (65 MW to 75 MW) from AWEKTL-WR to KSEB	WR-SR/ SR Import
			Revised STOA margin due to increase in LTA allocation by 4 MW (62 MW to 68 MW) from BETAM to UP (NR)	SR-WR
			Revised STOA margin due to increase in LTA allocation from BETAM to UP (NR) & Odisha each by 4 MW (62 MW to 8MW)	SR Export
3	17th July 2021	Whole month	Revised Reliability Margin (TRM) considering 2% of the total anticipated peak demand met in MW in NR Import	WR-NR, ER-NR & NR Import
4	19th July 2021	Whole month	Revised TTC/ATC due to change in LGBR of WR and outage of all units of Kudgi.	SR-WR/SR Export
5	28th July 2021	Whole month	Revised STOA margin due to - a) Increase in LTA from Rihand to MP by 4.5MW (from 45 MW to 49.5 MW) b) Increase in LTA from Matalia to MP by 40 MW (from 10 MW to 50 MW) c) Decrease in LTA from Rajasthan solar to MP by 5 MW (from 10 MW to 5 MW) d) Increase in LTA from Rajasthan solar to Chattisgarh by 5 MW (from 5 MW to 10 MW) e) ARERJL MTOA of 200 MW to Maharashtra has ended f) NR ISGS allocation to Gujrat increased from 58 MW to 80 MW	NR-WR/ NR Export
			Revised STOA margin due to - a) Increase in LTA from RWE_APL2_SECI-III(Ghadsisa) to Haryana by 22 MW (from 241 MW to 263 MW) b) LTA of 228 MW from PGLR_SREPL to UPPCL (SR-WR-NR) c) LTA of 6.9 MW from Rajghat, MP to UPPCL	WR-NR/NR Import
			Revised STOA as unallocated power of 300 MW from NTPC-WR to Karnataka revised to 0 MW	WR-SR/ SR Import
			Revised STOA margin due to LTA of 228 MW from PGLR_SREPL to UPPCL (SR-WR-NR)	SR-WR/SR Export
6	24th August, 2021	Whole Month	Revised TTC/ATC due to commissioning of 765kV Vindhyachal-Varanasi D/C	WR-NR, ER-NR & NR Import

ASSUMPTIONS IN BASECASE					
				Month : September 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	10744	10867	3971	3971
2	Haryana	9492	9088	2701	2701
3	Rajasthan	10485	9635	8259	8259
4	Delhi	5321	5152	796	795
5	Uttar Pradesh	20631	20099	10623	10689
6	Uttarakhand	2124	1886	928	939
7	Himachal Pradesh	1354	1114	783	769
8	Jammu & Kashmir	2363	1962	884	883
9	Chandigarh	313	249	0	0
10	ISGS/IPPs	48	48	21958	20013
	Total NR	62875	60100	50903	49019
II	EASTERN REGION				
1	Bihar	6537	5617	356	349
2	Jharkhand	1958	1503	511	501
3	Damodar Valley Corporation	2985	2723	5856	4190
4	Orissa	4513	4310	3998	3798
5	West Bengal	9704	8401	7033	6210
6	Sikkim	119	116	0	0
7	Bhutan	181	181	2325	2325
8	ISGS/IPPs	810	810	15771	11533
	Total ER	26808	23662	35850	28906
III	WESTERN REGION				
1	Maharashtra	17405	16509	11624	10789
2	Gujarat	13918	11320	8601	7246
3	Madhya Pradesh	9254	8534	3596	3845
4	Chattisgarh	4309	3965	2531	2835
5	Daman and Diu	276	236	0	0
6	Dadra and Nagar Haveli	744	870	0	0
7	Goa-WR	534	420	0	0
8	ISGS/IPPs	1784	3263	36712	32338
	Total WR	48224	45117	63064	57053

IV	SOUTHERN REGION				
1	Andhra Pradesh	8024	7220	6268	5204
2	Telangana	9100	8117	5196	5078
3	Karnataka	8396	6654	6023	4850
4	Tamil Nadu	15210	13068	7256	6376
5	Kerala	3778	2349	1614	961
6	Pondy	264	264	0	0
7	Goa-SR	82	82	0	0
8	ISGS/IPPs	37	37	14805	14794
	Total SR	44891	37791	41162	37263
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	140	95	118	118
2	Assam	1849	1588	615	574
3	Manipur	207	86	105	103
4	Meghalaya	315	255	302	229
5	Mizoram	150	55	60	60
6	Nagaland	173	155	96	93
7	Tripura	435	260	300	300
8	ISGS/IPPs	0	0	2371	2370
	Total NER	3269	2494	3967	3847
	Total All India	186067	169164	194946	176088