

**National Load Despatch Centre
Total Transfer Capability for December 2021**

Issue Date: 29th November, 2021

Issue Time: 1700 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 December 2021 to 31st December 2021	00-06	2500	500	2000	628	1372		
		06-18				1856	144		
		18-24				628	1372		
WR-NR*	1st December 2021	00-06	19500 18550**	1000	18500 17550**	11433 10483**	7067		TTC/ATC revised due to shutdown of 765 kV Gwalior - Phagi - 1
		06-09	17800 16850**	1000	16800 15850**	11822 10872*	4978		
		09-18	17500 16550**	1000	16500 15550**	11822 10872*	4678	-300	
		18-21	17500 16550**	1000	16500 15550**	11433 10483**	5067	-300	
		21-24	19200 18250**	1000	18200 17250**	11433 10483**	6767	-300	
WR-NR*	2nd December 2021 to 31st December 2021	00-06	19500 18550**	1000	18500 17550**	11433 10483**	7067		
		06-18	17800 16850**	1000	16800 15850**	11822 10872*	4978		
		18-21	17800 16850**	1000	16800 15850**	11433 10483**	5367		
		21-24	19500 18550**	1000	18500 17550**	11433 10483**	7067		
NR-ER*	1st December 2021 to 31st December 2021	00-06	2000	200	1800	93	1707		
		06-18	2000		1800	1525	275		
		18-24	2000		1800	93	1707		
ER-NR*	1st December 2021	00-06	5900	400	5500	4333	1167		TTC/ATC revised due to shutdown of 765 kV Gwalior - Phagi - 1
		06-09	7600	400	7200	4333	2867		
		09-21	7450	400	7050	4333	2717	-150	
		21-24	5750	400	5350	4333	1017	-150	
ER-NR*	2nd December 2021 to 31st December 2021	00-06	5900	400	5500	4333	1167		
		06-21	7600	400	7200	4333	2867		
		21-24	5900	400	5500	4333	1167		
W3-ER	1st December 2021 to 31st December 2021	00-24	No limit is being specified.						
ER-W3	1st December 2021 to 31st December 2021	00-24	No limit is being specified.						
WR-SR^	1st December 2021 to 31st December 2021	00-05	10350	650	9700	4018	5682		
		05-22	10350		9700		5682		
		22-24	10350		9700		5682		
SR-WR *	1st December 2021 to 31st December 2021	00-24	6600	400	6200	983	5217		

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ER-SR*	1st December 2021 to 31st December 2021	00-06	5800	350	5450	2675	2775		
		06-18				2760	2690		
		18-24				2675	2775		
SR-ER*	1st December 2021 to 31st December 2021	00-24	No limit is being Specified.						
ER-NER*	1st December 2021 to 31st December 2021	00-02	1695	60	1635	455	1180		TTC/ATC Changed due to 1) Change in Load-Generation of NER 2) One unit of Kameng HEP (4x150 MW) is under force outage Also, due to increase in peak demand of NER, TRM increased from 45 MW to 60 MW.
		02-07	1695		1635	455	1180		
		07-12	1695		1635	455	1180		
		12-17	1695		1635	455	1180		
		17-21	1275		1215	455	760		
		21-24	1695		1635	455	1180		
		00-02	2915		2855	81	2774		
NER-ER*	1st December 2021 to 31st December 2021	02-07	2915	60	2855	81	2774		TTC/ATC Changed due to 1) Change in Load-Generation of NER 2) One unit of Kameng HEP (4x150 MW) is under force outage Also, due to increase in peak demand of NER, TRM increased from 45 MW to 60 MW.
		07-12	2915		2855	81	2774		
		12-17	2915		2855	81	2774		
		17-21	2800		2740	81	2659		
		21-24	2915		2855	81	2774		

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W3 zone Injection	1st December 2021 to 31st December 2021	00-24	No limit is being specified (In case of any constraints appearing in the system, W3 zone export would be revised accordingly)						
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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 - Vindhyaal 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) KWPCCL, n)Vandana Vidut o)RKM, p)GMR Raikhedra, 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 commissioned 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.

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 December 2021	00-06	25400	1400	24000	15766	8234		TTC/ATC revised due to shutdown of 765 kV Gwalior - Phagi - 1
			24450**		23050**	14816**			
		06-09	25400		24000	16155	7845		
			24450**		23050**	15205**			
		09-17	24950		23550	16155	7395	-450	
			24000**		22600**	15205**			
17-18	24950	23550	16155	7395	-450				
	24000**	22600**	15205**						
NR	2nd December 2021	00-06	25400	1400	24000	15766	8234		
			24450**		23050**	14816**			
		06-09	25400		24000	16155	7845		
			24450**		23050**	15205**			
		09-17	25400		24000	16155	7845		
			24450**		23050**	15205**			
17-18	25400	24000	16155	7845					
	24450**	23050**	15205**						
18-24	25400	24000	15766	8234					
	24450**	23050**	14816**						
NER*	1st December 2021 to 31st December 2021	00-02	1195	60	1135	455	680		TTC/ATC Changed due to 1) Change in Load-Generation of NER 2) One unit of Kameng HEP (4x150 MW) is under force outage Also, due to increase in peak demand of NER, TRM increased from 45 MW to 60 MW
			1195		1135	455			
		02-07	1195		1135	455	680		
			1195		1135	455			
		07-12	1195		1135	455	680		
			1195		1135	455			
12-17	775	715	455	260					
	775	715	455						
17-21	1195	1135	455	680					
	1195	1135	455						
21-24	1195	1135	455	680					
	1195	1135	455						
WR*									
SR*#	1st December 2021 to 31st December 2021	00-06	16150	1000	15150	6693	8457		
		06-18	16150		15150	6778	8372		
		18-24	16150		15150	6693	8457		

* 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 - Vindhychal 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 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.

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 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 December 2021 to 31st December 2021	00-06	4500	700	3800	721	3079		
		06-18				3381	419		
		18-24				721	3079		
NER*	1st December 2021 to 31st December 2021	00-02	3415	60	3355	81	3274		TTC/ATC Changed due to 1) Change in Load-Generation of NER 2) One unit of Kameng HEP (4x150 MW) is under force outage Also, due to increase in peak demand of of NER, TRM increased from 45 MW to 60 MW
		02-07	3415			81	3274		
		07-12	3415			81	3274		
		12-17	3415			81	3274		
		17-21	3300			81	3159		
		21-24	3415			81	3274		
WR*									
SR*^	1st December 2021 to 31st December 2021	00-24	5600	400	5200	1783	3417		

* 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)			Applicable Revisions	
Corridor	Constraint			
WR-NR	N-1 contingency of one ckt of 765 kV Vindhyachal-Varanasi will overload the other circuit		Rev- 0 to 5	
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli		Rev- 0 to 5	
ER-NR	Inter-regional flow pattern towards NR		Rev- 0 to 5	
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	
	N-1 of one ckt of 765kV Angul-Srikakulam D/C will overload the other circuit			
	Low Voltage at Gazuwaka (East) Bus.		Rev- 1 to 5	
	N-1 of one ICT of 765/400 kV, 1500 MVA ICT at Nizamabad will overload the other ICT			
SR-WR	a) N-1 contingency of one ckt of 400 kV Kolhapur-PG - Kolhapur-MS D/C will overload of the other ckt		Rev- 0 to 5	
	b) N-1 contingency of 500 MVA ICT at 400 kV Kolhapur-MS will overload the other 2x315 MVA ICTs			
ER-NER	a) N-1 contingency of 400 kV Bongaigaon - Azara line		Rev- 0 to 5	
	b) High Loading of 220 kV Salakati - BTPS D/C			
NER-ER	a) N-1 contingency of 220 kV Salakati - Alipurduar I or II		Rev- 0 to 5	
	b) High Loading of 220 kV Salakati - Alipurduar II or I			
W3 zone Injection	---		Rev- 0 to 5	
Limiting Constraints (Simultaneous)			Applicable Revisions	
NR	Import	Inter-regional flow pattern towards NR	Rev- 0 to 5	
		N-1 contingency of one ckt of 765 kV Vindhyachal-Varanasi will overload the other circuit		Rev- 0 to 5
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev- 0 to 5	
(n-1) contingency of 400 kV Saranath-Pusauli				
NER	Import	a) N-1 contingency of 400 kV Bongaigaon - Killing line (0000 hrs to 2400 hrs) b) High Loading of 220 kV Balipara-Sonabil (0000 hrs to 0700 hrs) c) High Loading of 220 kV Salakati - BTPS D/C (0700 hrs to 1200 hrs)	Rev- 0 to 5	
	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 5	
SR	Import	N-1 of one ICT of 765/400 kV, 1500 MVA ICT at Nizamabad will overload the other ICT	Rev- 0	
		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 of one ICT of 765/400 kV, 1500 MVA ICT at Nizamabad will overload the other ICT		Rev-1 to 5
		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 5	
	N-1 contingency of 500 MVA ICT at 400 kV Kolhapur-MS will overload the other 2x315 MVA ICTs			

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Total Transfer Capability for December 2021

Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	25th September 2021	Whole Month	TTC/ATC revised due to commissioning of HVDC Raigarh-Pugalur Pole-3	WR-SR/ER-SR/SR Import
2	28th September 2021	Whole Month	Revised STOA margin due to a)operationalization of new LTA OF 73 MW from Tuticorin-BETAMWIND to UPPCL b)operationalization of new LTA OF 10 MW from Tuticorin-IWISL to Haryana	WR-NR/NR Import
			Revised STOA margin due to a) Discontinuation of 250 MW MTOA from ACSEPL to Madhya Pradesh b) Operationalization of new LTA of 250 MW from RSWPL3_FTG2 to BSPHCL c) Operationalization of new LTA of 300 MW from AP43PL_BKN to Odisha	ER-NR/WR-NR/NR Export
			Revised STOA margin due to a)operationalization of new LTA of 106 MW from Fatehgarh-II Solar to Telangana b) operationalization of new LTA of 176 MW from Bhadla-II Solar to Telangana	WR-SR/SR Import
			Revised STOA margin due to a) Increase LTA by 6 MW from BETAM to UP (NR) b) Increase LTA by 15 MW from Spring Energy,Pugalur to UP (NR) c) Operationalization of 63 MW LTA fromHIRIYUR_OSTROKANNADA to Bihar, ER	SR-WR/SR Export
			Revised STOA margin due to discontinuation of 50 MW MTOA Arunachal Pradesh to NPCL(UP)	NER-ER/NER Export
3	28th October 2021	Whole Month	Revised STOA margin due to a) Operationalization of LTA OF 39 MW from PGLR_SREPL to UPPCL b) Operationalization of LTA OF 11 MW from Tuticorin-BETAMWIND to UPPCL c) Discontinuation of 50 MW MTOA Arunachal Pradesh to NPCL(UP)	WR-NR/ER-NR/NR Import
			Revised STOA margin due to operationalization of new LTA of 33 MW from AP41PL_BHDL to ODISHA	NR-ER/NR Export
			Revised STOA margin due to a) Operationalization of LTA of 24 MW from Spring energy to UP (NR) b) Operationalization of LTA of 5 MW from BETAM to UP (NR) c) Operationalization of LTA of 5 MW from BETAM to Odisha (ER) d) Operationalization of LTA of 21 MW from Hiriyur_Ostrokannada to Bihar (ER)	SR-WR/SR-ER/SR Export
4	28th November 2021	Whole Month	Revised STOA margin due to a) Operationalization of LTA OF 300 MW from RSBPL_FTG2 to Maharastra b) Operationalization of LTA OF 100 from ASunceEPL_BKN to Maharastra c) Operationalization of LTA OF 250 from MRPL to CSEB d) Operationalization of LTA OF 250 MW from ACSEPL_BHADLA to Maharastra e) Operationalization of LTA from AP41PL_BHDL to ODISHA	NR-ER/NR-WR/NR Export
			Revised STOA margin due to operationalization of the LTA quantum of Tuticorin-BETAMWIND to UPPCL	WR-NR/ER-NR/NR Import
			Revised STOA margin due to a) Operationalization of LTA OF 50 MW from Fatehgarh PS(ACME Solar) to Pondicherry b) Operationalization of LTA OF 90 MW from Fatehgarh-II Solar to Telangana	WR-SR/SR Import
			Revised STOA margin due to a) Operationalization of LTA from Spring Energy,Pugalur to UP b) Operationalization of LTA from HIRIYUR_OSTROKANNADA to Bihar	SR-WR/SR Export
5	29th November 2021	Whole Month	TTC/ATC Changed due to 1) Change in Load-Generation of NER 2) One unit of Kameng HEP (4x150 MW) is under force outage Also, due to increase in peak demand of of NER, TRM increased from 45 MW to 60 MW	ER-NER/NER Import/ NER-ER/ NER Export
		1st December 2021	TTC/ATC revised due to shutdown of 765 kV Gwalior - Phagi - 1	ER-NR/WR-NR/NR Import

ASSUMPTIONS IN BASECASE					
				Month : December 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/PPs	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/PPs	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/PPs	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/PPs	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/PPs	0	0	2371	2370
	Total NER	3269	2494	3967	3847
	Total All India	186067	169164	194946	176088