

National Load Despatch Centre
Total Transfer Capability for September 2018

Issue Date: 21st September 2018

Issue Time: 1300 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 2018 to 30th September 2018	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st September 2018 to 22nd September 2018	00-24	12250	500	11750	9085	2665		
			11300**		10800**	8135**	2665**		
	23rd September 2018	00-730	12250	500	11750	9085	2665		
			11300**		10800**	8135**	2665**		
		730-24	10750		10250	9085	1165	-1500	
	24th September 2018 to 30th September 2018	00-24	12250	500	11750	9085	2665		
11300**			10800**		8135**	2665**			
NR-ER*	1st September 2018 to 30th September 2018	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st September 2018 to 30th September 2018	00-24	5250	300	4950	3867	1083		
W3-ER	1st September 2018 to 30th September 2018	00-24	No limit is being specified.						
ER-W3	1st September 2018 to 30th September 2018	00-24	No limit is being specified.						
WR-SR	1st September 2018 to 21st September 2018	00-05	5150	500	4650	4535	115		
		05-22	5150		4650		115		
		22-24	5150		4650		115		
	22nd September 2018	00-05	5150	500	4650	4535	115		
		05-830	5150		4650		115		
		830-22	4450		3950		0	-700	
		22-24	4450		3950		0		
	23rd September 2018 to 24th September 2018	00-05	5150	500	4650	4535	115		
		05-730	5150		4650		115		
		730-22	4800		4300		0	-350	
	25th September 2018 to 30th September 2018	00-05	5150	500	4650	4535	115		
		05-22	5150		4650		115		
22-24		5150	4650		115				

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SR-WR *	1st September 2018 to 30th September 2018	00-24	No limit is being Specified.									
ER-SR	1st September 2018	00-06	4350	250	4100	2762	1338					
		06-18								2847	1253	
		18-24								2762	1338	
	2nd September 2018 and 3rd September 2018	00-06	4350	250	4100	2762	1338					
		06-830	4350		4100	2847	1253					
		830-18	3350		3100	2847	253					
		18-24	3350		3100	2762	338					
	4th September 2018 to 30th September 2018	00-06	4350	250	4100	2762	1338					
		06-18									2847	1253
		18-24									2762	1338
	SR-ER *	1st September 2018 to 30th September 2018	00-24	No limit is being Specified.								
	ER-NER	1st September 2018 to 10th September 2018	00-17	1350	45	1305	225	1080				
17-23			1280	1235		1010						
23-24			1350	1305		1080						
11th September 2018		00-08	1240	45	1195	225	970					
		08-17	900		855		630					
		17-23	840		795		570					
		23-24	900		855		630					
12th September 2018 to 30th September 2018		00-17	1240	45	1195	225	970					
		17-23	1170		1125		900					
		23-24	1240		1195		970					
NER-ER		1st September 2018 to 10th September 2018	00-17	1640	45	1595	0	1595				
			17-23	1780		1735		1735				
	23-24		1640	1595		1595						
	11th September 2018	00-08	1740	45	1695	0	1695					
		08-17	1250		1205		1205					
		17-23	1370		1325		1325					
		23-24	1250		1205		1205					
	12th September 2018 to 30th September 2018	00-17	1740	45	1695	0	1695					
		17-23	1830		1785		1785					
		23-24	1740		1695		1695					

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W3 zone Injection	1st September 2018 to 30th September 2018	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) KWPCCL, 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 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.

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
ER									
NR	1st September 2018 to 22nd September 2018	00-05	16350	800	15550	12952 12002**	2598		
			15400**		14600**		2598**		
		05-18	17500		16700		3748		
			16550**		15750**		2798**		
		18-24	16350		15550		2598		
			15400**		14600**		2598**		
	23rd September 2018	00-05	16350	800	15550	12952 12002**	2598	Revised due to shutdown of HVDC Champa-Kurukshetra Bipole	
			15400**		14600**		2598**		
		05-730	17500		16700		3748		
			16550**		15750**		2798**		
		730-18	15350		14550		1598		
			14400**		13600**		1598**		
18-24	14350	13550	558						
	13400**	12600**	598**						
24th September 2018 to 30th September 2018	00-05	16350	800	15550	12952 12002**	2598			
		15400**		14600**		2598**			
	05-18	17500		16700		3748			
		16550**		15750**		2798**			
	18-24	16350		15550		2598			
		15400**		14600**		2598**			

NER	1st September 2018 to 10th September 2018	00-17	1350	45	1305	225	1080		
		17-23	1280		1235		1010		
		23-24	1350		1305		1080		
	11th September 2018	00-08	1240	45	1195	225	970		
		08-17	900		855		630		
		17-23	840		795		570		
		23-24	900		855		630		
	12th September 2018 to 30th September 2018	00-17	1240	45	1195	225	970		
		17-23	1170		1125		900		
		23-24	1240		1195		970		
	WR								
	SR	1st September 2018	00-05	9500	750	8750	7297	1453	
05-06			9500	8750		7297	1453		
06-18			9500	8750		7382	1368		
18-22			9500	8750		7297	1453		
22-24			9500	8750		7297	1453		
2nd September 2018 and 03rd September 2018		00-05	9500	750	8750	7297	1453		
		05-06	9500		8750	7297	1453		
		06-830	9500		8750	7382	1368		
		830-18	8500		7750	7382	368		
		18-22	8500		7750	7297	453		
		22-24	8500		7750	7297	453		
4th September 2018 to 21st September 2018		00-05	9500	750	8750	7297	1453		
		05-06	9500		8750	7297	1453		
		06-18	9500		8750	7382	1368		
		18-22	9500		8750	7297	1453		
		22-24	9500		8750	7297	1453		
22nd September 2018		00-05	9500	750	8750	7297	1453		
		05-06	9500		8750	7297	1453		
		06-830	9500		8750	7382	1368		
		830-18	8800		8050	7382	668	-700	
		18-22	8800		8050	7297	753		
		22-24	8800		8050	7297	753		
23rd September 2018 to 24th September 2018		00-05	9500	750	8750	7297	1453		
		05-06	9500		8750	7297	1453		
		06-730	9500		8750	7382	1368		
		730-18	9150		8400	7382	1018	-350	
	18-22	9150	8400		7297	1103			
	22-24	9150	8400		7297	1103			
							Revised due to shutdown of 765kV Wardha-Nizamabad-1		
							Revised due to shutdown of 765kV Sholapur-Raichur-2		

SR	25th September 2018 to 30th September 2018	00-05	9500	750	8750	7297	1453	
		05-06	9500		8750	7297	1453	
		06-18	9500		8750	7382	1368	
		18-22	9500		8750	7297	1453	
		22-24	9500		8750	7297	1453	

* 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 = $A * C/(B+C)$

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 2018 to 30th September 2018	00-06	4500	700	3800	388	3412			
		06-18			3800	553	3247			
		18-24	4500		3800	388	3412			
NER	1st September 2018 to 10th September 2018	00-17	1640	45	1595	0	1595			
		17-23	1780		1735		1735			
		23-24	1640		1595		1595			
	11th September 2018	00-08	1740	45	1695	0	1695			
		08-17	1250		1205		1205			
		17-23	1370		1325		1325			
		23-24	1250		1205		1205			
	12th September 2018 to 30th September 2018	00-17	1740	45	1695	0	1695			
		17-23	1830		1785		1785			
		23-24	1740		1695		1695			
	WR									
SR *	1st September 2018 to 30th September 2018	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).

Limiting Constraints (Corridor wise)

Corridor	Constraint	Applicable Revisions
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak	Rev-0 to 6
WR-NR	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 6
	Frequent outage of Champa Kurukshetra poles	Rev- 2-6
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 6
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 6
WR-SR and ER-SR	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 6
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 6
ER-NER	a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Balipara-Sonabil line(200 MW)	Rev-0 to 6
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 6
W3 zone Injection	---	Rev-0 to 6

Limiting Constraints (Simultaneous)

		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 6
		(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida. Frequent outage of Champa Kurukshetra poles	Rev-0 to 6 Rev- 2-6
	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 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Balipara-Sonabil line(200 MW)	Rev-0 to 6
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 6
SR	Import	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-0 to 6
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 6

**National Load Despatch Centre
Total Transfer Capability for September 2018**

Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
0	28th May 2018	Whole Month	TTC declared considering restriction on power order of HVDC Mundra - Mahindragarh bipole due to low generation at APL Mundra	WR-NR / Import of NR
1	1st Aug 2018	Whole Month	Revised STOA margins due to: (a) 40 MW allocation to MP from NR ISGS (b) 100 MW allocation to Chattisgarh from Kishanganga NR	NR-WR
			Revised due to: (a) Frequent outage of Champa Kurukshetra single pole and (b) Restoration of power order on HVDC Mundra-Mahindragarh due to revival of generation at APL and CGPL plants. (c) Change in STOA margin due to change in LTA/MTOA	WR-NR / Import of NR
			Revised STOA margins due to change in LTA/MTOA	ER-NR
			Revised STOA margins due to: (a) Change in LTA/MTOA towards ER-SR corridor (b) Change in allocation to Telangana from WR plants	ER-SR /WR-SR/ Import of SR
2	31st Aug 2018	1st September to 10th September	Revised due to continuous shutdown of Palatana Module 2 (GTG+STG)	ER-NER/NER-ER/Import/Export of NER
		Whole Month	Revised STOA margins due to change in LTA/MTOA	NR-WR/ER-NR/Import/Export of NR
		Whole Month	Revised due to change in load generation balance and network conditions and change in pattern of inter-regional flow towards NR	WR-NR/Import of NR
3	01st Sept 2018	2nd September and 3rd September	Revised due to shutdown of 400kV Bus -III and IV at Talcher respectively	ER-SR / Import of SR
4	10th Sept 2018	11th September and 12th September	Revised due to day Time Shutdown of Misa 3x105 MVA ICT 1	ER-NER/NER-ER/Import/Export of NER
5	11th Sept 2018	12th Sept 2018	Revised due non availing Shutdown of Misa 3x105 MVA ICT 1	ER-NER/NER-ER/Import/Export of NER
6	21st Sept 2018	22nd Sept 2018	Revised due to shutdown of 765kV Wardha-Nizamabad-1	WR-SR/Import of SR
		23rd Sept 2018 and 24th Sept 2018	Revised due to shutdown of 765kV Sholapur-Raichur-2	WR-SR/Import of SR
		23rd Sept 2018	Revised due to shutdown of HVDC Champa-Kurukshetra Bipole	WR-NR/Import of NR

ASSUMPTIONS IN BASECASE					
				Month : September'18	
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	10474	9326	5458	5426
2	Haryana	8627	7492	2765	2445
3	Rajasthan	9370	9169	5305	5784
4	Delhi	5806	5589	1075	1099
5	Uttar Pradesh	15893	14651	9512	9412
6	Uttarakhand	2117	1848	1083	1145
7	Himachal Pradesh	1503	1203	1107	883
8	Jammu & Kashmir	2799	1692	1514	785
9	Chandigarh	344	220	0	0
10	ISGS/IPPs	24	24	20279	15055
	Total NR	56958	51211	48099	42035
II	EASTERN REGION				
1	Bihar	4087	2852	310	200
2	Jharkhand	1171	873	364	225
3	Damodar Valley Corporation	2925	2668	5264	4225
4	Orissa	4009	3194	2539	2192
5	West Bengal	8603	5717	5360	4272
6	Sikkim	84	84	0	0
7	Bhutan	212	218	1592	1526
8	ISGS/IPPs	265	259	11202	8824
	Total ER	21357	15866	26631	21464
III	WESTERN REGION				
1	Maharashtra	16834	13516	11885	9571
2	Gujarat	14542	13186	7379	7074
3	Madhya Pradesh	9729	7523	4011	3862
4	Chattisgarh	4171	3477	2999	2383
5	Daman and Diu	333	295	0	0
6	Dadra and Nagar Haveli	804	728	0	0
7	Goa-WR	516	373	0	0
8	ISGS/IPPs	4170	3476	39160	31931
	Total WR	51098	42575	65434	54821

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	8103	6984	5903	3947
2	Telangana	8305	8102	4447	4177
3	Karnataka	9352	5764	6477	4630
4	Tamil Nadu	14096	12115	8411	7493
5	Kerala	3673	2434	1564	283
6	Pondy	373	371	0	0
7	Goa-SR	84	84	0	0
8	ISGS/IPPs	0	0	11055	9542
	Total SR	43986	35853	37857	30072
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	123	74	0	0
2	Assam	1318	1292	307	196
3	Manipur	171	95	0	0
4	Meghalaya	267	194	313	214
5	Mizoram	99	68	8	8
6	Nagaland	129	78	22	12
7	Tripura	205	117	61	59
8	ISGS/IPPs	159	131	1963	1784
	Total NER	2471	2049	2674	2273
	Total All India	176311	147947	182392	152286