

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

Issue Date: 10<sup>th</sup> September 2018

Issue Time: 1130 hrs

Revision No. 4

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 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 30th September 2018	00-05	5150	500	4650	4535	115		
		05-22	5150		4650		115		
		22-24	5150		4650		115		
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.						

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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 to 12th September 2018	00-08	1240	45	1195	225	970			
		08-17	900		855		630	-340		
		17-23	840		795		570	-330		
		23-24	900		855		630	-340		
	13th 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 to 12th September 2018		00-08	1740	45	1695	0	1695			
		08-17	1250		1205		1205	-490		
		17-23	1370		1325		1325	-460		
		23-24	1250		1205		1205	-490		
13th September 2018 to 30th September 2018		00-17	1740	45	1695	0	1695			
		17-23	1830		1785		1785			
		23-24	1740		1695		1695			
<b>W3 zone Injection</b>		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)						

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<b>Note: TTC/ATC of S1-(S2&amp;S3) corridor, Import of S3(Kerala), Import of Punjab and Import of DD &amp; DNH is uploaded on NLDC website under Intra-Regional Section in Monthly ATC.</b>									

\* 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.



<b>SR</b>	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 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	
<b>NR*</b>	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			
<b>NER</b>	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 to 12th September 2018	00-08	1740	45	1695	0	1695		Revised due to day Time Shutdown of Misa 3x105 MVA ICT 1	
		08-17	1250		1205		1205			-490
		17-23	1370		1325		1325			-460
		23-24	1250		1205		1205			-490
	13th September 2018 to 30th September 2018	00-17	1740	45	1695	0	1695			
		17-23	1830		1785		1785			
		23-24	1740		1695		1695			
<b>WR</b>										
<b>SR *</b>	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
<b>NR-WR</b>	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak	Rev-0 to 4
<b>WR-NR</b>	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 4
	Frequent outage of Champa Kurukshetra poles	Rev- 2-4
<b>NR-ER</b>	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 4
<b>ER-NR</b>	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 4
<b>WR-SR and ER-SR</b>	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
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 4
<b>ER-NER</b>	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 4
<b>NER-ER</b>	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 4
<b>W3 zone Injection</b>	---	Rev-0 to 4

### Limiting Constraints (Simultaneous)

			Applicable Revisions
<b>NR</b>	<b>Import</b>	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 4
		(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 4 Rev- 2-4
	<b>Export</b>	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	Rev-0 to 4
		(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 4
<b>NER</b>	<b>Import</b>	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 4
	<b>Export</b>	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 4
<b>SR</b>	<b>Import</b>	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
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 4

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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/E xport of NER
		Whole Month	Revised STOA margins due to change in LTA/MTOA	NR-WR/ER-NR/Import/E xport 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/E xport of NER



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	<b>NORTHERN REGION</b>				
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
	<b>Total NR</b>	<b>56958</b>	<b>51211</b>	<b>48099</b>	<b>42035</b>
II	<b>EASTERN REGION</b>				
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
	<b>Total ER</b>	<b>21357</b>	<b>15866</b>	<b>26631</b>	<b>21464</b>
III	<b>WESTERN REGION</b>				
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
	<b>Total WR</b>	<b>51098</b>	<b>42575</b>	<b>65434</b>	<b>54821</b>

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