

National Load Despatch Centre
Total Transfer Capability for September 2016

Issue Date: 1/8/2016

Issue Time: 1730 hrs

Revision No. 1

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 Sep 2016 to 30th Sep 2016	00-24	2500	500	2000	55	1945		STOA margin revised due to change in LTA/MTOA allocation
WR-NR*	1st Sep 2016 to 30th Sep 2016	00-24	6800	500	6300	6170	130	100	Revised due to commissioning of 400 kV Ranchi-Chandawa-Gaya D/C, 765kV Varanasi-Kanpur D/C, 765kV Kanpur-Jhatikara S/C , 400kV Kanpur (GIS)-Kanpur D/C and considering total gen at Kawai, Chhabra, Kalisindh as 2500 MW
NR-ER*	1st Sep 2016 to 30th Sep 2016	00-06	2000	200	1800	93	1707		STOA margin revised due to change in LTA/MTOA allocation
		06-18'	2000		1800	158	1642		
		18-24	2000		1800	93	1707		
ER-NR*	1st Sep 2016 to 30th Sep 2016	00-24	4400	300	4100	2531	1569		
W3-ER ^s	1st Sep 2016 to 30th Sep 2016	00-24	No limit is being specified.						
ER-W3	1st Sep 2016 to 30th Sep 2016	00-24	No limit is being specified.						
WR-SR	1st Sep 2016 to 30th Sep 2016	00-24	4000	750	3250	3250	0		
SR-WR *	1st Sep 2016 to 30th Sep 2016	00-24	No limit is being Specified.						
ER-SR	1st Sep 2016 to 30th Sep 2016	00-06	2650	0	2650	2585	65		
		18-24				2650	0		
		06-18'							
SR-ER *	1st Sep 2016 to 30th Sep 2016	00-24	No limit is being Specified.						
ER-NER	1st Sep 2016 to 30th Sep 2016	00-17	1030	45	985	210	775		
		23-24	940		895		685		
NER-ER	1st Sep 2016 to 30th Sep 2016	00-17	1530	45	1485	0	1485		
		23-24	1500		1455		1455		
W3 zone Injection	1st Sep 2016 to 30th Sep 2016	00-24	No limit is being specified (in case of skewed inter-regional flows or any constraints appearing in the system, W3 zone export would be revised accordingly)						

Note: TTC/ATC of S1-S2 corridor, 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).

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1) S1 comprises of Telangana, AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Puducherry

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.

Limiting Constraints

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak
WR-NR	1. (n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. 2.High Loading of 400kV Singrauli-Anpara S/C.
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli
ER-NR	n-1 contingency of one circuit of 400 kV Biharsharif- Lakhisarai leads to high loading on the other circuit
WR-SR & ER-SR	(n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2500 MW loading on the other circuit Low Voltage at Gazuwaka (East) Bus.
ER-NER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa. n-1 contingency of 400/132 kV, 2 x 200 MVA ICTs at Silchar
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa
W3 zone Injection	---

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 Sep 2016 to 30th Sep 2016	00-05	9700	800	8900	8701	199	700	Revised due to commissioning of 400 kV Ranchi-Chandawa-Gaya D/C, 765kV Varanasi-Kanpur D/C, 765kV Kanpur-Jhatikara S/C , 400kV Kanpur (GIS)-Kanpur D/C and considering total gen at Kawai, Chhabra, Kalisindh as 2500 MW and considering the present inter regional flow pattern
		05-18'	9700		8900		199		
		18-23'	9700		8900		199		
		23-24	9700		8900		199		
NER	1st Sep 2016 to 30th Sep 2016	00-17	1030	45	985	210	775		
		17-23	940		895		685		
WR									
SR	1st Sep 2016 to 30th Sep 2016	00-06	6650	750	5900	5835	65		
		06-18'	6650		5900	5900	0		
		18-24	6650		5900	5835	65		

* 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).

<p>* 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</p> <p>Margin for WR-NR applicants = $A * B/(B+C)$ Margin for ER-NR Applicants = $A * C/(B+C)$</p>

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 Sep 2016 to 30th Sep 2016	00-06	4500	700	3800	148	3652		STOA margin revised due to change in LTA/MTOA allocation
		06-18'			3800	213	3587		
		18-24	4500		3800	148	3652		
NER	1st Sep 2016 to 30th Sep 2016	00-17	1530	45	1485	0	1485		
		23-24	1500		1455		1455		
		17-23							
WR									
SR *	1st Sep 2016 to 30th Sep 2016	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

NR	Import	(n-1) contingency of one circuit of 400 kV Biharshariff- Lakhisarai leads to high loading on the other circuit 1. (n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. 2.High Loading of 400kV Singrauli-Anpara S/C.
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli
NER	Import	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa. n-1 contingency of 400/132 kV, 2 x 200 MVA ICTs at Silchar
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa.
SR	Import	(n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2500 MW loading on the other circuit
		Low Voltage at Gazuwaka (East) Bus.

**National Load Despatch Centre
Total Transfer Capability for September 2016**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	1/8/2016	Whole month	STOA margin revised due to change in LTA/MTOA allocation	NR-ER/ NR-WR/ Simultaneous Export of NR
			Revised due to commissioning of 400 kV Ranchi-Chandawa-Gaya D/C, 765kV Varanasi-Kanpur D/C, 765kV Kanpur-Jhatikara S/C , 400kV Kanpur (GIS)-Kanpur D/C and considering total gen at Kawai, Chhabra, Kalisindh as 2500 MW and considering the present inter regional flow pattern	WR-NR/ Simultaneous import of NR

ASSUMPTIONS IN BASECASE					
				Month : September '16	
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	9400	8059	5466	5258
2	Haryana	7798	7260	2610	2610
3	Rajasthan	10027	10099	6333	6382
4	Delhi	4844	4498	962	962
5	Uttar Pradesh	13618	12577	7131	7179
6	Uttarakhand	1688	1250	804	722
7	Himachal Pradesh	1184	901	815	850
8	Jammu & Kashmir	2246	1356	841	807
9	Chandigarh	286	191	0	0
10	ISGS/IPPs	0	0	20482	15017
	Total NR	51091	46191	45444	39787
II	EASTERN REGION				
1	Bihar	3260	2746	200	110
2	Jharkhand	1023	883	400	350
3	Damodar Valley Corporation	2582	2207	3400	2871
4	Orissa	3708	2852	2929	2000
5	West Bengal	7601	6081	4768	3830
6	Sikkim	93	49	0	0
7	Bhutan	215	215	1504	1472
8	ISGS/IPPs	415	419	9645	9015
	Total ER	18897	15452	22846	19647
III	WESTERN REGION				
1	Maharashtra	20103	13051	13552	9451
2	Gujarat	14488	8693	11414	5676
3	Madhya Pradesh	8537	5486	4790	2285
4	Chattisgarh	4088	2975	3236	1989
5	Daman and Diu	314	229	0	0
6	Dadra and Nagar Haveli	680	626	0	0
7	Goa-WR	487	221	0	0
8	ISGS/IPPs	902	904	28078	22617
	Total WR	49599	32185	61071	42019

IV	SOUTHERN REGION				
1	Andhra Pradesh	7073	5389	6385	5627
2	Telangana	9564	7551	4263	2964
3	Karnataka	9054	7496	6966	5130
4	Tamil Nadu	14003	12691	7036	5417
5	Kerala	3973	2663	1643	638
6	Pondy	391	327	0	0
7	Goa-SR	89	89	0	0
8	ISGS/IPPs	28	28	14187	11953
	Total SR	44175	36234	40480	31729
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	130	102	0	0
2	Assam	1228	1007	275	225
3	Manipur	164	76	0	0
4	Meghalaya	279	206	300	243
5	Mizoram	93	63	8	0
6	Nagaland	120	84	24	16
7	Tripura	234	148	91	91
8	ISGS/IPPs	100	60	1869	1763
	Total NER	2348	1746	2567	2338
	Total All India	166356	132052	173941	136992