

National Load Despatch Centre
Total Transfer Capability for September 2016

Issue Date: 22/9/2016

Issue Time: 1300 hrs

Revision No. 9

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		
WR-NR*	1st Sep 2016 to 14th Sep 2016	00-24	6800	500	6300	6170	130		
	15th Sep 2016 to 21st Sep 2016	00-24	6600		6100	6170	0		
	22nd Sep 2016	00-07	6600		6100	6170	0		
		07-24	5100		4600	6170	0		
	23rd Sep 2016	00-07'	6600		6100	6170	0		
		07-24	5600		5100	6170	0		
24th Sep 2016 to 30th Sep 2016	00-24	6600	6100	6170	0				
NR-ER*	1st Sep 2016 to 30th Sep 2016	00-06	2000	200	1800	93	1707		
		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 19th Sep 2016	00-24	4000	750	3250	3250	0		
	20th Sep 2016 to 21st Sep 2016	00-07	4000	750	3250	3250	0		
		07-24	3500	750	2750	3250	0		
22nd Sep 2016 to 30th Sep	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 13th Sep 2016	00-06	2650	0	2650	2142	508		
		06-18'				2207	443		
		18-24				2142	508		
	14th Sep 2016 to 22nd Sep 2016	00-06	2650	0	2650	2142	508		
		06-18'				2207	443		
		18-24				2142	508		
	23rd Sep 2016	00-06	2650	0	2350	2142	508		
		06-18'				2207	143	-300	Revised due to shut down of 400kV Rengali- Indravati S/C
		18-24				2142	208		
	24th Sep 2016 to 25th Sep 2016	00-06	2650	0	2650	2585	65		
		06-18'				2650	0		
		18-24				2585	65		
	26th Sep 2016	00-06	2650	0	2350	2142	508		
		06-18'				2207	143	-300	Revised due to shut down of 400kV Rengali- Indravati S/C
		18-24				2142	208		
27th Sep 2016 to 30th Sep 2016	00-06	2650	0	2650	2585	65			
	06-18'				2650	0			
	18-24				2585	65			
SR-ER *	1st Sep 2016 to 30th Sep 2016	00-24	No limit is being Specified.						

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ER-NER	1st Sep 2016 to 19th Sep 2016	00-17	1030	45	985	210	775		
		17-23	940		895		685		
		23-24	1030		985		775		
	20th Sep 2016 to 23rd Sep 2016	00-08	1030	45	985	210	775		
		08-17	940		895		685		
		17-23	940		895		685		
		23-24	1030		985		775		
	24th Sep 2016	00-08	1030	45	985	210	775	-90	Revised due to shutdown of 400 kV Bongaigaon - Byrnihat S/C
		08-17	940		895		685		
		17-23	940		895		685		
		23-24	1030		985		775		
	25th Sep 2016 to 30th Sep 2016	00-17	1030	45	985	210	775		
17-23		940	895		685				
23-24		1030	985		775				
NER-ER	1st Sep 2016 to 19th Sep 2016	00-17	1530	45	1485	0	1485		
		17-23	1500		1455		1455		
		23-24	1530		1485		1485		
	20th Sep 2016 to 23rd Sep 2016	00-08	1530	45	1485	0	1485		
		08-17	840		795		795		
		17-23	1500		1455		1455		
		23-24	1530		1485		1485		
	24th Sep 2016	00-08	1530	45	1485	0	1485	-690	Revised due to shutdown of 400 kV Bongaigaon - Byrnihat S/C
		08-17	840		795		795		
		17-23	1500		1455		1455		
		23-24	1530		1485		1485		
	24th Sep 2016 to 30th Sep 2016	00-17	1530	45	1485	0	1485		
17-23		1500	1455		1455				
23-24		1530	1485		1485				
W3 zone Injection	1st Sep 2016 to 30th Sep 2016	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 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).

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) KWPC, n) Vandana Vidyut o) RKM, p) GMR Raikhera, 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.

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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 Biharshariff- 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 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	---

SR	1st Sep 2016 to 13th Sep 2016	00-06	6650	750	5900	5392	508		
		06-18'	6650		5900	5457	443		
		18-24	6650		5900	5392	508		
	14th Sep 2016 to 19th Sep 2016	00-06	6650	750	5900	5392	508		
		06-18'	6650		5900	5457	443		
		18-24	6650		5900	5392	508		
	20th Sep 2016 to 21st Sep 2016	00-06	6650	750	5900	5392	508		
		06-07'	6650		5900	5457	443		
		07-18'	6150		5400	5457	0		
	22nd Sep 2016	18-24	6150	750	5400	5392	8		
		00-06	6650		5900	5392	508		
		06-18'	6650		5900	5457	443		
	23rd Sep 2016	18-24	6650	750	5900	5392	508	-300	Revised due to shut down of 400kV Rengali- Indravati S/C
		00-06	6650		5900	5835	65		
		06-18'	6350		5600	5900	0		
	24th Sep 2016 to 25th Sep 2016	18-24	6350	750	5600	5835	0		
		00-06	6650		5900	5835	65		
		06-18'	6650		5900	5900	0		
	26th Sep 2016	18-24	6650	750	5900	5835	65	-300	Revised due to shut down of 400kV Rengali- Indravati S/C
		00-06	6650		5900	5835	65		
		06-18'	6350		5600	5900	0		
	27th Sep 2016 to 30th Sep 2016	18-24	6350	750	5600	5835	0		
		00-06	6650		5900	5835	65		
		06-18'	6650		5900	5900	0		
		18-24		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).

* 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 Sep 2016 to 30th Sep 2016	00-06	4500	700	3800	148	3652		
		06-18'			3800	213	3587		
		18-24	4500		3800	148	3652		
NER	1st Sep 2016 to 19th Sep 2016	00-17	1530	45	1485	0	1485		
		17-23	1500		1455		1455		
		23-24	1530		1485		1485		
	20th Sep 2016 to 23rd Sep 2016	00-08	1530	45	1485	0	1485		
		08'-17	840		795		795		
		17-23	1500		1455		1455		
	24th Sep 2016	00-08	1530	45	1485	0	1485		Revised due to shutdown of 400 kV Bongaigaon - Byrnihat S/C
		08'-17	840		795		795	-690	
		17-23	1500		1455		1455		
		23-24	1530		1485		1485		
	25th Sep 2016 to 30th Sep 2016	00-17	1530	45	1485	0	1485		
		17-23	1500		1455		1307		
		23-24	1530		1485		1485		
	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.

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Total Transfer Capability for September 2016**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	8/1/2016	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
2	26/8/2016	01-08-16 to 13-08-16	STOA margin revised due to outage of Talcher Stage-2 Unit - 6 approved in 121st OCC of SRPC.	ER-SR/ Import of SR
3	29/8/2016	Whole month	Revised considering the present Inter-Regional flow pattern.	WR-NR/ Import of NR
4	12/9/2016	14/9/2016 to 23/9/2016	STOA margin revised due to extended outage of Talcher Stage-2 Unit -6.	ER-SR/ Import of SR
5	14/9/2016	15/9/2016 to 30/9/2016	Revised considering the current rating of 400 kV isolators at Dhanaunda as 2000 A	WR-NR/ Simultaneous import of NR
6	19/09/2016	20/09/2016 to 21/09/2016	Revised due to the shutdown of HVDC Bhadrawati Block-1.	WR-SR/ Import of SR
7	19/09/2016	20/09/2016 to 23/09/2016	Revised due to shutdown of 400 kV Bongaigaon - Azara S/C and shutdown of 400 kV Bongaigaon - Byrnihat S/C	ER-NER / NER-ER
8	21/9/2016	22/9/2016	Revised due to outage of 765 kV Phagi-Bhiwani, 765 kV Gwalior-Phagi-1 and increase in generation at Kawai, Kalisindh and Chabra complex	WR-NR/ Simultaneous import of NR
		23/9/2016	increase in generation at Kawai, Kalisindh and Chabra complex	
9	22/9/2016	24/9/2016	Revised due to shutdown of 400 kV Bongaigaon - Byrnihat S/C	ER-NER / NER-ER
		23/09/2016 & 26/09/2016	Revised due to shut down of 400kV Rengali- Indravati S/C	ER-SR/ Import of SR

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	Chhattisgarh	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