

**National Load Despatch Centre  
Total Transfer Capability for July 2014**

Issue Date: 30/06/2014

Issue Time: 1400 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 July 2014 to 31st July 2014	00-24	2500	500	2000	297	1703		
WR-NR	1st July 2014 to 31st July 2014	00-17	4700	500	4200	4380	0		
		23-24					0		
		17-23					0		
NR-ER*	1st July 2014 to 31st July 2014	00-06	1000	200	800	293	507		
		06-17'			800	423	377		
		17-18'	1100		900	423	477		
		18-23			900	293	607		
		23-24	1000		800	293	507		
ER-NR <sup>§</sup>	1st July 2014 to 31st July 2014	00-17	3700	300	3400	2431	969		
		23-24					969		
		17-23					969		
W3-ER <sup>§</sup>	1st July 2014 to 31st July 2014	00-24	1500	300	1200	551	649	-300	Revised due to forced outage of 400 kV Raigarh-SEL-Rourkela Ckt 1
ER-W3	1st July 2014 to 31st July 2014	00-24	1000	300	700	874	0		
WR-SR	1st July 2014 to 31st July 2014	00-24	1000	0	1000	1000	0		
SR-WR *	1st July 2014 to 31st July 2014	00-24	1000	0	1000	0	1000		
ER-SR	1st July 2014 to 7th July 2014	00-06	2650	0	2650	1923	727		
		18-24				1968	682		
	06-18'	2650	2366		284				
	00-06		2411		239				
	18-24	2650	1923		727				
	06-18'		1968		682				
SR-ER*	1st July 2014 to 7th July 2014	00-24	1200	0	1200	148	1052		
	8th July 2014 to 9th July 2014					197	1003		
	10th July 2014 to 31st July 2014					148	1052		
ER-NER	1st July 2014 to 31st July 2014	00-17	645	50	595	205	390	125	Revised due to change in Load-Generation balance and major network change due to commissioning of 400/220 kV Azara (Kukurmara) substation
		23-24	600		550	210	340	80	
NER-ER	1st July 2014 to 31st July 2014	00-17	550	100	450	0	450	100	Revised due to change in Load-Generation balance and major network change due to commissioning of 400/220 kV Azara (Kukurmara) substation
		23-24	530		430		430	-20	

**National Load Despatch Centre  
Total Transfer Capability for July 2014**

Issue Date: 30/06/2014

Issue Time: 1400 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
S1-S2	1st July 2014 to 5th July 2014	00-24	2300	290	2010	2400	0		
	6th July 2014 to 7th July 2014	00-24	2300		2010	2400	0		
	8th July 2014 to 9th July 2014	00-24	2300		2010	2634	0		
	10th July 2014 to 15th July 2014	00-24	2300		2010	2400	0		
	16th July 2014 to 22nd July 2014	00-24	2300		2010	2400	0		
	23rd July 2014 to 30th July 2014	00-24	2300		2010	2480	0		
	31st July 2014	00-24	2300		2010	2270	0		
Import of Punjab	1st July 2014 to 31st July 2014	00-24	5700	300	5400	3790	1610		
Import TTC for DD & DNH	1st July 2014 to 31st July 2014	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st July 2014 to 31st July 2014	00-17	9000	200	8800	7050	1750		
		23-24 17-23	9500		9300		2250		

\* 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).

\$ As per Simulations, predominant direction of flow is on West to North Corridor. Hence, in case injection point is in Western Region (W1,W2,W3), STOA/PX transactions from West to North on West-East-North corridor shall not be allowed as such transaction increases congestion in the West to North Corridor.

1) ER-SR TTC declared at Talcher Interconnector and Gazuwaka HVDC B/B seam

2) S1 comprises of AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Pondicherry

3) 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

# 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.

**National Load Despatch Centre  
Total Transfer Capability for July 2014**

Issue Date: 30/06/2014

Issue Time: 1400 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
----------	------	-------------------	---------------------------------	--------------------	-------------------------------------	--	--	-------------------------------------	----------

**Limiting Constraints**

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.
WR-NR	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra)
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusaui
ER-NR	High loading of 765 kV Agra-Gwalior (1250MW SPS setting of 765kV Gwalior-Agra) due to transit flows on ER-WR-NR corridor
W3-ER	(n-1) contingency of 400kV Sterlite-Rourkela S/C
ER-W3	(n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela
WR-SR & ER-SR	1. Commissioning of 765kV Raichur-Sholapur S/C 2. Based on the operational experience after the synchronization of SR grid with NEW grid and due to inadvertent 3. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case
SR-WR	Bhadrawati HVDC B/B link capacity
SR-ER	(n-1) and (n-1-1) contingencies of 400kV Talcher-Rourkela D/C
ER-NER	(n-1) contingency of 400 kV Balipara – Bongaigaon D/C leading to thermal loading of 220kV BTPS-
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
S1-S2	(n-1) contingency of 400 kV Kolar-Hosur D/C
Import of Punjab	(n-1) contingency of ICT at Dhuri and (n-1) contingency of 220kV Moga(PG)-Moga(PSTCL)
W3 zone Injection	(n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-Wardha (800 MW SPS setting on each circuit of 400kV Raipur-Wardha)

\*Primary constraints

**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
<b>ER</b>									
<b>NR</b>	1st July 2014 to 31st July 2014	00-17 23-24	8400	800	7600	6811	789		
		17-23	8400		7600		789		
<b>NER</b>	1st July 2014 to 31st July 2014	00-17 23-24	645	50	595	205	390	125	Revised due to change in Load-Generation balance and major network change due to commissioning of 400/220 kV Azara (Kukurmara) substation
		17-23'	600		550		210		
<b>WR</b>									
<b>SR</b>	1st July 2014 to 7th July 2014	00-06 18-24	3650	0	3650	2923	727		
		06-18'				2968	682		
	8th July 2014 to 9th July 2014	00-06 18-24	3650	0	3650	3366	284		
		06-18'				3411	239		
	10th July 2014 to 31st July 2014	00-06 18-24	3650	0	3650	2923	727		
		06-18'				2968	682		

### 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 July 2014 to 31st July 2014	00-06	3500	700	2800	590	2210		
		06-17'	3500		2800	720	2080		
		17-18	3600		2900	720	2180		
		18-23	3600		2900	590	2310		
		23-24	3500		2800	590	2210		
NER	1st July 2014 to 31st July 2014	00-17	450	100	350	0	350		
		23-24			450		450		
		17-23	550						
WR									
SR*	1st July 2014 to 7th July 2014	00-24	2200	0	2200	148	2052		
	8th July 2014 to 9th July 2014					197	2003		
	10th July 2014 to 31st July 2014					148	2052		

\* 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	<b>Import</b>	High loading of 765 kV Agra-Gwalior (1250MW SPS setting of 765kV Gwalior-Agra) due to transit flows on ER-WR-NR corridor.
	<b>Export</b>	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra (n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Allahabad-Pusauli
NER	<b>Import</b>	(n-1) contingency of 400 kV Balipara – Bongaigaon D/C leading to thermal loading of 220kV BTPS-Agia S/C
	<b>Export</b>	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
SR	<b>Import</b>	1. Commissioning of 765kV Raichur-Sholapur S/C 2. Based on the operational experience after the synchronization of SR grid with NEW grid and due to inadvertent variation of 765kV Raichur-Sholapur line flow, observation of Low Frequency Oscillations(LFO). 3. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge.
	<b>Export</b>	(n-1) and (n-1-1) contingencies of 400kV Talcher-Rourkela D/C

\*Primary constraints

**National Load Despatch Centre  
Total Transfer Capability for July 2014**

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	04-04-2014	Whole Month	Margin revised due to grant of 69 MW LTA to Jindal Power Limited Tamnar	W3/ ER-SR
2	11-04-2014	Whole Month	Margin revised due to addition of 139 MW LTA to TANGEDCO	ER-SR
			Margin Revised due to correction in LTA Figure and addition of 208 MW LTA to TANGEDCO	S1-S2
3	30-04-2014	Whole Month	Re-Routing of transactions on West-East-North Corridor discontinued on account of Inter-Regional Loop flows leading to physical congestion on WR-NR.	W3-ER
			Margin revised due to commissioning of Sasan Unit-4	WR-NR
4	01-05-2014	Whole Month	Margin revised due to incorporation of existing Power Allocation.	
			Margin revised due to incorporation of existing Solar Power Allocation to SR, ER, NER constituents between 6 hrs -18 hrs in LTA figures and allocation data available on RPCs RTA/REA.	NR-ER/ ER- NER
			Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA and Re-routing of existing MTOA granted by CTU.	W3-ER
			Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA.	ER-W3
			Margin revised due to incorporation of existing Solar Power Allocation to Karnataka between 6 hrs-18 hrs in LTA figures.	ER-SR
			Margin revised due to Allocation of 150 MW to TANGEDCO.	S1-S2
			Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA and existing MTOA granted by CTU.	W3 Zone Injection
5	19-05-2014	Whole Month	Revised due to augmentation/ modifications in Punjab control area network.	Import of Punjab
5	19-05-2014	Whole Month	Refer to explanatory notes regarding the change in TTC representation given in the last page.	ER-SR/ S1-S2
6	13-06-2014	Whole Month	Revised due to change in Load Generation Balance and Commissioning of Sasan Unit-1.	WR-NR
7	25-06-2014	Whole Month	Revised due to change in Load Generation Balance and Margin revised considering SRPC Generating Units Maintenance schedule.	S1-S2
			Revised due to change in Load Generation Balance	ER-NR
8	27-06-2014	Whole Month	LTA/MTOA revised due to deferment of Simhadri unit - 4 overhauling	S1-S2
9	30-06-2014	Whole Month	Revised due to change in Load-Generation balance and major network change due to commissioning of 400/220 kV Azara (Kukumara) substation	ER-NER / NER-ER
			Revised due to forced outage of 400 kV Raigarh-SEL-Rourkela Ckt 1	W3-ER

# ASSUMPTIONS IN BASECASE

Month : July '14

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
<b>I</b>	<b>NORTHERN REGION</b>				
1	Punjab	8805	8759	3237	3034
2	Haryana	7318	7018	3790	3790
3	Rajasthan	6840	6640	4731	4721
4	Delhi	5241	5044	1172	1172
5	Uttar Pradesh	12034	12134	6260	6283
6	Jammu & Kashmir	1935	1834	556	571
7	Uttarakhand	1559	1459	508	469
8	Himachal Pradesh	1489	1390	867	867
9	Chandigarh	291	277	0	0
10	ISGS/IPPs			19676	17746
	<b>Total NR</b>	<b>45512</b>	<b>44555</b>	<b>40797</b>	<b>38653</b>
<b>II</b>	<b>EASTERN REGION</b>				
1	West Bengal	6881	4919	4764	3604
2	Jharkhand	1070	850	365	370
3	Orissa	3740	3000	3049	2375
4	Bihar	2190	1820	80	80
5	Damodar Valley Corporation	2350	2139	3523	3008
6	Sikkim	86	40		
7	Bhutan	108	108	1425	1065
8	ISGS/IPPs	300	480	9351	8716
	<b>Total ER</b>	<b>16725</b>	<b>13356</b>	<b>22557</b>	<b>19218</b>
<b>III</b>	<b>WESTERN REGION</b>				
1	Chattisgarh	2709	2381	1653	1326
2	Madhya Pradesh	5556	3873	4367	2740
3	Maharashtra	15757	13648	9707	7696
4	Gujarat	11177	8813	8279	6437
5	Goa	330	356		
6	Daman and Diu	244	263		
7	Dadra and Nagar Haveli	629	613		
8	ISGS/IPPs	1255	1255	18036	17054
	<b>Total WR</b>	<b>37657</b>	<b>31202</b>	<b>42042</b>	<b>35253</b>

## ASSUMPTIONS IN BASECASE

Month : July '14

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
<b>IV</b>	<b>SOUTHERN REGION</b>				
1	Andhra Pradesh	11750	10246	7877	6292
2	Tamil Nadu	12324	10506	7812	6808
3	Karnataka	8094	6969	6094	5005
4	Kerala	3394	2653	1512	907
5	Pondy	339	291		
6	Goa	84	83		
7	ISGS/IPPs			10422	9492
	<b>Total SR</b>	<b>35985</b>	<b>30748</b>	<b>33717</b>	<b>28504</b>
<b>V</b>	<b>NORTH-EASTERN REGION</b>				
1	Arunachal Pradesh	120	60	0	0
2	Assam	1350	970	220	200
3	Manipur	120	84	0	0
4	Meghalaya	310	217	80	70
5	Mizoram	75	53	8	4
6	Nagaland	120	84	12	12
7	Tripura	250	120	90	90
8	ISGS/IPPs			1309	1096
	<b>Total NER</b>	<b>2345</b>	<b>1588</b>	<b>1719</b>	<b>1472</b>
	<b>Total All India</b>	<b>138224</b>	<b>121449</b>	<b>140832</b>	<b>123100</b>