

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

Issue Date: 30/04/2014

Issue Time: 1045 hrs

Revision No. 3

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	361	1639			
WR-NR	1st July 2014 to 31st July 2014	00-17	4200	500	3700	3992	0		Margin revised due to commissioning of Sasan Unit-4	
		23-24	4200		3700		0			
NR-ER*	1st July 2014 to 31st July 2014	00-17	1000	200	800	200	600			
		23-24	1100		900		700			
ER-NR	1st July 2014 to 31st July 2014	00-17	4400	300	4100	2789	1311			
		23-24					1311			
W3-ER <sup>s</sup>	1st July 2014 to 31st July 2014	00-24	1900	300	1600	0	1600			
ER-W3	1st July 2014 to 31st July 2014	00-24	1000	300	700	700	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 31st July 2014	00-05	750	0	750	657	93			
		10-19	750		750		93			
SR-ER *	1st July 2014 to 7th July 2014	00-24	1200	0	1200		148			
	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	520	50	470	230	240			
		23-24	520		470		240			
NER-ER	1st July 2014 to 31st July 2014	00-17	450	100	350	0	350			
		23-24	550		450		450			
S1-S2	1st July 2014 to 7th July 2014	00-24	6200	500	5700		5358			
	8th July 2014 to 9th July 2014						5508			192
	10th July 2014 to 31st July 2014						5358			342
Import of Punjab	1st July 2014 to 31st July 2014	00-24	5600	300	5300	3800	1500			
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	6884	1916			
		23-24	9500		9300		2416			

\* 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) 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, b) Jindal Power Limited (JPL) , 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

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# The figure is based on LTA/MTOA approved by CTU. In actual Operation, due to Units being on Maintenance/ Fuel shortage the LTA/MTOA utilized would be less. RLDC/ NLDC would factor this situation while issuing STOA approvals

\$ 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.

**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 (1000 MW SPS setting on each circuit of 765 kV Gwalior-Agra)
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusaali
ER-NR	(n-1) contingency of one circuit of 400kV Farakka –Malda S/C
W3-ER	(n-1) contingency of 400kV Sterilte-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 variation of 765kV Raichur-Sholapur line flow, observation of Low Frequency Oscillations(LFO) 3. Considering transfer capability assessment by CTU on NEW-SR corridor.
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 one circuit of 400 kV Balipara – Bongaigaon D/C
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 line, 400kV Hosur-Salem S/C and 400kV Somanahalli-Salem S/C line.
Import of Punjab	(n-1) contingency of ICT at Patiala/Moga
W3 zone Injection	(n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section

\*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
ER									
NR	1st July 2014 to 31st July 2014	00-17 23-24	8600	800	7800	6781	1019		Margin revised due to commissioning of Sasan Unit-4
		17-23	8600		7800		1019		
NER	1st July 2014 to 31st July 2014	00-17 23-24	520	50	470	230	240		
		17-23	520		470		240		
WR									
SR	1st July 2014 to 31st July 2014	00-05 10-19	1750	0	1750	1657	93		
		05-10 19-24	1750		1750		93		

### 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	00-17 23-24	3500	700	2800	561	2239		
		17-23	3600		2900		2339		
NER	1st July 2014 to 31st July 2014	00-17 23-24	450	100	350	0	350		
		17-23	550		450		450		
WR									
SR-ER *	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>	(n-1) contingency of one circuit of 400kV Farakka –Malda D/C High loading of 765 kV Agra-Gwalior (1000 MW SPS setting on each circuit of 765 kV Gwalior-Agra)
	<b>Export</b>	(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 one circuit of 400 kV Balipara – Bongaigaon D/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. Considering transfer capability assessment by CTU on NEW-SR corridor.
	<b>Export</b>	(n-1) and (n-1-1) contingencies of 400kV Talcher-Rourkela D/C

\*Primary constraints



## 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>