

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

Issue Date: 05/02/2014

Issue Time: 1800 hrs

Revision No. 8

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 February 2014 to 28th February 2014	00-24	2500	500	2000	286	1714				
WR-NR ¹	1st February 2014 to 28th February 2014	00-17 23-24	3900	500	3400	3181	219				
		17-23	3900		3400						
NR-ER *	1st February 2014 to 28th February 2014	00-17 23-24	1000	200	800	200	600				
		17-23	1100		900		700				
ER-NR	1st February 2014	00-07 16-17 23-24	2600	300	2300	2118	182				
		07-16'					1900			1600	0
		17-23					1900			1600	0
		00-17 23-24					2600			2300	182
	2nd February 2014 to 5th February 2014	17-23	1900	1600	0						
		00-17 23-24	2600	300	2300	2118	182		Revised due to restoration of 400 kV Kahalgaon-Biharshariff D/C		
	17-23	3100	2800	1182	1200						
	7th February 2014 to 28th February 2014	00-17 23-24	3600	300	3300	2118	1182				
		17-23	3100	2800	1182						
	W3-ER	1st February 2014 to 28th February 2014	00-24	1800	300	1500	0	1500			
ER-W3	1st February 2014 to 28th February 2014	00-24	1000	300	700	700	0				
WR-SR	1st February 2014 to 28th February 2014	00-24	850	0	850	850	0				
SR-WR *	1st February 2014 to 28th February 2014	00-24	1000	0	1000	0	1000				
ER-SR	1st February 2014 to 28th February 2014	00-05 10-19	700	0	700	700	0				
		05-10 19-24	700		700		0				
SR-ER *	1st February 2014 to 28th February 2014	00-17 23-24	1100	0	1100	197	903				
		17-23	1100		1100		903				
ER-NER ²	1st February 2014	00-07 16-17 23-24	350	50	300	230	70				
		07-16'					320			270	40
		17-23					330			280	50
		00-17 23-24					350			300	230
	2nd February 2014 to 5th February 2014	17-23	330	280	50						
		00-17 23-24	720	50	670	230	440	370	Revised due to restoration of 400 kV Kahalgaon-Biharshariff D/C		
	17-23	640	590	360	310						
	7th February 2014 to 28th February 2014	00-17 23-24	720	50	670	230	440				
		17-23	640	590	360						
	NER-ER	1st February 2014 to 28th February 2014	00-17 23-24	570	100	470	0	470			
17-23			570	470		470					
S1-S2	1st February 2014 to 28th February 2014	00-24	5650	400	5250	4900	350				
Import of Punjab	1st February 2014 to 28th February 2014	00-24	5600	300	5300	3800	1500				
Import TTC for DD & DNH	1st February 2014 to 28th February 2014	00-24	980	0	980	LTA and MTOA as per ex-pp schedule					

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W3 zone Injection	1st February 2014	00-08 23-24	8500	200	8300	7630	670		
		08-16'	7600		7400		-230		
		16-17	8600		8400		770		
		17-18	9100		8900		1270		
		18-23	9500		9300		1670		
	2nd February 2014 to 28th February 2014	00-08 23-24	8500	200	8300	7630	670		
		08-16'	8000		7800		170		
		16-17	9000		8800		1170		
		17-23	9500		9300		1670		

* 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) KWPCCL

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

1. WR-NR Total Transfer capability will be reduced to 3100 MW in case of outage of any one of the following sections:

- 765 kV Gwalior-Agra one circuit
- 765 kV Bina-Gwalior one circuit

2. ER-NER Total Transfer capability will be reduced to 450 MW in case of outage of any one of the 400kV Purnea-Biharshariff circuit.

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-Pusauli
ER-NR	(n-1) contingency of 400 kV Kahalgaon-Biharshariff
W3-ER	(n-1) contingency of 400kV Sterlite-Rourkela S/C
ER-W3	High loading of 400 kV Raipur-Bhadrawati T/C, Bhilai-Bhadrawati S/C, Bhilai-Koradi and Bhilai-Seoni* (n-1) contingency of 400kV Raigarh-Sterlite
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	
ER-NER	(n-1) contingency of 400 kV Kahalgaon-Biharshariff
NER-ER	(n-1) contingency of 400 kV Farakka-Malda
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) contingency of 400 kV 400 kV 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	
ER										
NR ¹	1st February 2014	00-07 16-17 23-24	6500	800	5700	5299	401			
		07-16'	5800		5000		0			
		17-23	5800		5000		0			
	2nd February 2014 to 5th February 2014	00-17 23-24	6500	800	5700	5299	401			
		17-23	5800		5000		0			
	6th February 2014	00-17 23-24	7500	800	6700	5299	1401	1000		Revised due to restoration of 400 kV Kahalgaon-Biharshariff D/C
		17-23	7000		6200		901	1200		
	7th February 2014 to 28th February 2014	00-17 23-24	7500	800	6700	5299	1401			
17-23		7000	6200		901					
NER ²	1st February 2014	00-07 16-17 23-24	350	50	300	230	70			
		07-16'	320		270		40			
		17-23	330		280		50			
	2nd February 2014 to 5th February 2014	00-17 23-24	350	50	300	230	70			
		17-23	330		280		50			
	6th February 2014	00-17 23-24	720	50	670	230	440	370	Revised due to restoration of 400 kV Kahalgaon-Biharshariff D/C	
		17-23	640		590		360	310		
	7th February 2014 to 28th February 2014	00-17 23-24	720	50	670	230	440			
17-23		640	590		360					
WR										
SR	1st February 2014 to 28th February 2014	00-05 10-19	1550	0	1550	1550	0			
05-10 19-24		1550	1550		0					

1. WR-NR Total Transfer capability will be reduced to 3100 MW in case of outage of any one of the following sections:

- 765 kV Gwalior-Agra one circuit
- 765 kV Bina-Gwalior one circuit

2. ER-NER Total Transfer capability will be reduced to 450 MW in case of outage of any one of the 400kV Purnea-Biharshariff circuit.

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 February 2014 to 28th February 2014	00-17 23-24	3500	700	2800	286	2514		
		17-23	3600		2900		2614		
NER	1st February 2014 to 28th February 2014	00-17 23-24	570	100	470	0	470		
		17-23	570		470		470		
WR									
SR*	1st February 2014 to 28th February 2014	00-17 23-24	2100	0	2100	197	1903		
		17-23	2100		2100		1903		

* 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 400 kV Kahalgaon-Biharshariff High loading of 765 kV Agra-Gwalior (1000 MW SPS setting on each circuit of 765 kV Gwalior-Agra)
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Allahabad-Pusaui
NER	Import	(n-1) contingency of 400 kV Kahalgaon-Biharshariff
	Export	(n-1) contingency of 400 kV Farakka-Malda
SR	Import	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.
	Export	

*Primary constraints

ASSUMPTIONS IN BASECASE

Month : February '14

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	5581	3588	2452	2392
2	Haryana	5304	4892	3632	3632
3	Rajasthan	7889	8452	4885	4783
4	Delhi	3786	1623	1039	1039
5	Uttar Pradesh	11585	11600	5886	6052
6	Jammu & Kashmir	2099	1897	245	278
7	Uttarakhand	1573	1028	403	319
8	Himachal Pradesh	1287	882	249	126
9	Chandigarh	238	98	0	0
10	ISGS/IPPs			16390	11197
	Total NR	39342	34060	35181	29818
II	EASTERN REGION				
1	West Bengal				
2	Jharkhand				
3	Orissa				
4	Bihar				
5	Damodar Valley Corporation				
6	Sikkim				
7	Bhutan				
8	ISGS/IPPs				
	Total ER	0	0	0	0
III	WESTERN REGION				
1	Chattisgarh				
2	Madhya Pradesh				
3	Maharashtra				
4	Gujarat				
5	Goa				
6	Daman and Diu				
7	Dadra and Nagar Haveli				
8	ISGS/IPPs				
	Total WR	0	0	0	0

IV	SOUTHERN REGION				
1	Andhra Pradesh	12233	9818	8014	6538
2	Tamil Nadu	11677	9714	7485	5425
3	Karnataka	8822	6821	6694	5453
4	Kerala	3378	2583	1844	916
5	Pondy	312	247		
6	Goa	80	80		
7	ISGS/IPPs			10790	9643
	Total SR	36502	29263	34827	27975
V	NORTH-EASTERN REGION				
1	Manipur	125	88	0	0
2	Meghalaya	300	210	110	80
3	Mizoram	75	53	0	0
4	Nagaland	110	77	12	6
5	Assam	1230	830	190	185
6	Tripura	230	130	100	100
7	Arunachal Pradesh	120	84	0	0
8	ISGS/IPPs			935	623
	Total NER	2190	1472	1347	994
	Total All India	78034	64795	71355	58787