National Load Despatch Centre
Total Transfer Capability for January 2014

Issue Date: 27/12/2013 Issue Time: 1630 hrs Revision No. 4

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 January 2014 to 31st January 2014	00-24	2500	500	2000	286	1714		
WR-NR[1]	1st January 2014 to 31st January 2014	00-17 23-24	3900	500	3400	3181	219		
		17-23	3900		3400	3181	219		
NR-ER *	1st January 2014 to 31st January 2014	00-17 23-24	1000	200	800	200	600		
		17-23	1100		900		700		
ER-NR *	1st January 2014 to 31st January 2014	00-17 23-24	3800	300	3500	2118	1382		
		17-23					1382		
W3-ER	1st January 2014 to 31st January 2014	00-24	1800	300	1500	0	1500		
ER-W3	1st January 2014 to 31st January 2014	00-24	1000	300	700	700	0		
WR-SR	1st January 2014 to 31st January 2014	00-24	1000	0	1000	1000	0		
SR-WR *	1st January 2014 to 31st January 2014	00-24	1000	0	1000	0	1000		
ER-SR	1st January 2014 to 31st January 2014	00-05 10-19	750	0	750	657	93		Revised due to Load Generation Balance
		05-10 19-24	1250		1250		593	150	
SR-ER *	1st January 2014 to 31st January 2014	00-17 23-24	1100	0	1100	197	903		
		17-23	1100		1100		903		
ER-NER[2]	1st January 2014 to 31st January 2014	00-17 23-24	720	50	670	230	440		
		17-23	640		590		360		
NER-ER	1st January 2014 to 31st January 2014	00-17 23-24	570	100	470	0	470		
		17-23	570		470		470		
S1-S2	1st January 2014 to 31st January 2014	00-24	5600	400	5200	4900	300		
Import of Punjab	1st January 2014 to 31st January 2014	00-24	5600	300	5300	3800	1500		
Import TTC for DD & DNH	1st January 2014 to 31st January 2014	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st January 2014 to 31st January 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) KWPCL

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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 les. 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 Sterilte-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	Bhadrawati HVDC B/B link capacity
SR-WR	Bhadrawati HVDC B/B link capacity
ER-SR	Peak: 1. Talcher-Kolar HVDC Capacity; 2. (n-1) contingency of 400 kV Jeypore-Gazuwaka
	Off-Peak: 1. Talcher-Kolar HVDC Capacity; 2. (n-1) contingency of 400 kV Jeypore-Gazuwaka
ER-SR	
SR-ER	
ER-NER	(n-1) contingency of 400 kV Kahalgaon-Biharshariff
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) 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 January 2014 to 31st January 2014	00-17 23-24	7700	800	6900	5299	1601		
		17-23	7700		6900		1601		
NER[2]	1st January 2014 to 31st January 2014	00-17 23-24	720	50	670	230	440		
		17-23	640		590		360		
WR									
SR	1st January 2014 to 31st January 2014	00-05 10-19	1750	0	1750	1657	93		Revised due to Load Generation Balance
		05-10 19-24	2250		2250		593	150	

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 January 2014 to 31st January 2014	00-17 23-24	3500	700	2800	286	2514		
		17-23	3600		2900		2614		
NER	1st January 2014 to 31st January 2014	00-17 23-24	570	100	470	0	470		
		17-23	570		470		470		
WR									
SR*	1st January 2014 to 31st January 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-Pusauli
NER	**Import**	(n-1) contingency of 400 kV Kahalgaon-Biharshariff
	Export	N-1 contingency of 400/220 kV, 2x315 MVA ICTs at Misa
SR	**Import**	Bhadrawati HVDC B/B link capacity Peak: (n-1) contingency of 400 kV Rourkela-Talcher Off-Peak: 1. Talcher-Kolar HVDC Capacity; 2. (n-1) contingency of 400 kV Jeypore-Gazuwaka
	Export	

*Primary constraints

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	04-11-2013	Whole Month	Margin on NR-ER Corridor revised considering the LTA/MTOA on NR-ER Path	NR-ER
2	27-11-2013	Whoe Month	Revised due to change in Load Generation in WR/NR	WR-NR
			Commissioning of 400 kV Purnea-Biharshariff D/C and Network reconfiguration at Malda & Purnea.	ER-NR/ER-NER
			Change in Load Generation Balance in ER	ER-SR
			Revised due to change in Inter-Regional flow pattern and Load generation change in ER/WR.	W3 Zone Injection
3	23-12-2013	Whoe Month	Revised due to Commissioning of Kudankulam and NLC II EXP.	S1-S2
4	27-12-2013	Whoe Month	Revised due to Load Generation Balance	ER-SR

ASSUMPTIONS IN BASECASE

Month : January '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	7000	4924	2546	2351
2	Haryana	5559	4660	2770	2770
3	Rajasthan	7051	6539	4002	4002
4	Delhi	3974	3720	1514	1514
5	Uttar Pradesh	11000	10322	6008	5756
6	Jammu & Kashmir	1876	1185	584	429
7	Uttarakhand	1543	902	713	340
8	Himachal Pradesh	1327	730	444	523
9	Chandigarh	224	118	0	0
10	ISGS/IPPs			16740	11303
	Total NR	**39554**	**33100**	**35321**	**28988**
II	**EASTERN REGION**				
1	West Bengal	4900	4500	4837	3944
2	Jharkhand	1110	770	561	561
3	Orissa	3500	2200	2430	1699
4	Bihar	1820	1320	0	0
5	Damodar Valley Corporation	2600	2035	3439	3039
6	Sikkim	40	40		
7	Bhutan	110	110	648	648
8	ISGS/IPPs	131	241	6494	6762
	Total ER	**14211**	**11216**	**18409**	**16653**
III	**WESTERN REGION**				
1	Chattisgarh	3181	2462	1804	1065
2	Madhya Pradesh	7637	5600	9905	7817
3	Maharashtra	15506	12500	4366	2928
4	Gujarat	11119	10121	11221	8374
5	Goa	432	281	0	0
6	Daman and Diu	245	208	0	0
7	Dadra and Nagar Haveli	604	471	0	0
8	ISGS/IPPs	590	590	16763	15466
	Total WR	**39314**	**32233**	**44059**	**35650**

IV	**SOUTHERN REGION**				
1	Andhra Pradesh	10900	9350	7204	6066
2	Tamil Nadu	11300	8617	6433	4962
3	Karnataka	7800	6499	5213	3549
4	Kerala	3225	2234	1917	760
5	Pondy	320	244	0	0
6	Goa	80	80	0	0
7	ISGS/IPPs			11130	10168
	Total SR	**33625**	**27024**	**31897**	**25505**
V	**NORTH-EASTERN REGION**				
1	Manipur	130	91	0	0
2	Meghalaya	280	196	110	95
3	Mizoram	85	60	8	4
4	Nagaland	120	84	20	10
5	Assam	1350	970	220	180
6	Tripura	260	130	100	100
7	Arunachal Pradesh	130	91	0	0
8	ISGS/IPPs			1020	735
	Total NER	**2355**	**1622**	**1478**	**1124**
	Total All India	**129059**	**105195**	**131164**	**107920**