National Load Despatch Centre
Total Transfer Capability for March 2014

Issue Date: 19/02/2014 Issue Time: 1100 hrs Revision No. 2

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 March 2014 to 31st March 2014	00-24	2500	500	2000	361	1639		
WR-NR[1]	1st March 2014 to 31st March 2014	00-17 23-24	4200	500	3700	3656	44	300	Revised due to change in Inter-regional flow pattern & COD of Sasan UMPP Unit-2
		17-23	4200		3700		44		
NR-ER*	1st March 2014 to 31st March 2014	00-17 23-24	1000	200	800	200	600		
		17-23	1100		900		700		
ER-NR	1st March 2014 to 6th March 2014	00-17 23-24	3600	300	3300	2789	511	-200	Revised due to shutdown of TEESTA Power Station
		17-23	3100		2800		11	-700	
	7th March 2014 to 31st March 2014	00-17 23-24	3800	300	3500	2789	711		
		17-23					711		
W3-ER	1st March 2014 to 31st March 2014	00-24	1800	300	1500	0	1500		
ER-W3	1st March 2014 to 31st March 2014	00-24	1000	300	700	700	0		
WR-SR	1st March 2014 to 31st March 2014	00-24	1000	0	1000	1000	0	150	Revised considering operational experience and margins on HVDC
SR-WR *	1st March 2014 to 31st March 2014	00-24	1000	0	1000	0	1000		
ER-SR	1st March 2014 to 31st March 2014	00-05 10-19	750	0	750	657	93	50	Revised considering operational experience and margins on HVDC
		05-10 19-24	750		750		93	50	
SR-ER *	1st March 2014 to 31st March 2014	00-17 23-24	1100	0	1100	197	903		
		17-23	1100		1100		903		
ER-NER[2]	1st March 2014 to 31st March 2014	00-17 23-24	720	50	670	230	440		
		17-23	720		670		440		
NER-ER	1st March 2014 to 31st March 2014	00-17 23-24	630	100	530	0	530		
		17-23	590		490		490		
S1-S2	1st March 2014 to 31st March 2014	00-24	6200	400	5800	5500	300		
Import of Punjab	1st March 2014 to 31st March 2014	00-24	5600	300	5300	3800	1500		
Import TTC for DD & DNH	1st March 2014 to 31st March 2014	00-24	980	0	980	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st March 2014 to 31st March 2014	00-17 23-24	9000	200	8800	7167	1633	500	Review of flow pattern due to network topology change and Load Generation Balance.
		17-23	9500		9300		2133		

* 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

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

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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 & 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 asessment 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 315 MVA ICT 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 Raipur-Wardha-Parli 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[1]	1st March 2014 to 6th March 2014	00-17 23-24	7800	800	7000	6445	555	100	1. Revised due to shutdown of TEESTA Power Station. 2. Revised due to change in Inter-regional flow pattern & COD of Sasan UMPP Unit-2
		17-23	7300		6500		55	-400	
	7th March 2014 to 31st March 2014	00-17 23-24	8000	800	7200	6445	755	300	
		17-23	8000		7200		755		
NER[2]	1st March 2014 to 31st March 2014	00-17 23-24	720	50	670	230	440		
		17-23	720		670		440		
WR									
SR	1st March 2014 to 31st March 2014	00-05 10-19	1750	0	1750	1657	93	200	Revised considering operational experience and margins on HVDC
		05-10 19-24	1750		1750		93	200	

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 March 2014 to 31st March 2014	00-17 23-24	3500	700	2800	561	2239		
		17-23	3600		2900		2339		
NER	1st March 2014 to 31st March 2014	00-17 23-24	630	100	530	0	530		
		17-23	590		490		490		
WR									
SR*	1st March 2014 to 31st March 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 315 MVA ICT at Misa
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 asessment by CTU on NEW-SR corridor.
	Export	

*Primary constraints

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	22-01-2014	Whole Month	Revised due to commissioning of 765kV Raichur-Sholapur S/C	ER-SR/ WR-SR
2	19-02-2014	Whole Month	1. Revised due to shutdown of TEESTA Power Station. 2. Revised due to change in Inter-regional flow pattern & COD of Sasan UMPP Unit-2	ER-NR/ WR-NR
			Revised considering operational experience and margins on HVDC	ER-SR/ WR-SR
			Review of flow pattern due to network topology change and Load Generation Balance.	W3 Zone Injection

ASSUMPTIONS IN BASECASE

Month : March '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	5571	4510	2524	2495
2	Haryana	5755	4779	3482	3482
3	Rajasthan	8215	8320	4940	4892
4	Delhi	4102	2950	1101	1101
5	Uttar Pradesh	11500	10154	5957	5867
6	Jammu & Kashmir	2249	1725	343	567
7	Uttarakhand	1582	1397	649	580
8	Himachal Pradesh	1353	1194	367	253
9	Chandigarh	238	138	0	0
10	ISGS/IPPs			17573	11543
	Total NR	**40564**	**35167**	**36936**	**30780**
II	**EASTERN REGION**				
1	West Bengal	6600	5100	4797	4000
2	Jharkhand	1000	800	450	450
3	Orissa	3400	2600	2405	1600
4	Bihar	2000	1600	0	0
5	Damodar Valley Corporation	2600	2350	3600	3397
6	Sikkim	90	50		0
7	Bhutan	110	110	200	200
8	ISGS/IPPs	270	270	6849	6490
	Total ER	**16070**	**12880**	**18301**	**16137**
III	**WESTERN REGION**				
1	Chattisgarh	3236	2968	1629	1629
2	Madhya Pradesh	6961	5643	3847	3003
3	Maharashtra	16185	14018	11275	10527
4	Gujarat	11063	10565	10649	9002
5	Goa	422	283	0	0
6	Daman and Diu	239	240	0	0
7	Dadra and Nagar Haveli	588	552	0	0
8	ISGS/IPPs	1291	1111	18555	16029
	Total WR	**39985**	**35380**	**45955**	**40190**

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	120	84	0	0
2	Meghalaya	300	210	90	70
3	Mizoram	70	49	4	0
4	Nagaland	110	77	12	6
5	Assam	1280	940	190	190
6	Tripura	220	130	105	100
7	Arunachal Pradesh	120	84	0	0
8	ISGS/IPPs			921	603
	Total NER	**2220**	**1574**	**1322**	**969**
	Total All India	**135341**	**114264**	**137341**	**116051**