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 17-23	4200 4200	500	3700 3700	3656	44 44	300	Revised due to change in Inter- regional flow pattern & COD of Sasan UMPP Unit-2
NR-ER*	1st March 2014 to 31st March 2014	00-17 23-24 17-23	1000 1100	200	800 900	200	600 700		
ER-NR	1st March 2014 to 6th March 2014	00-17 23-24 17-23	3600 3100	300	3300 2800	2789	511 11	-200 -700	Revised due to shutdown of TEESTA Power Station
EK-14K	7th March 2014 to 31st March 2014	00-17 23-24 17-23	3800	300	3500	2789	711 711		
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 05-10 19-24	750 750	0	750 750	657	93 93	50 50	Revised considering operational experience and margins on HVDC
SR-ER *	1st March 2014 to 31st March 2014	00-17 23-24 17-23	1100 1100	0	1100 1100	197	903 903		
		00-17							
ER-NER ²	1st March 2014 to 31st March 2014	23-24	720 720	50	670 670	230	440		
NER-ER	1st March 2014 to 31st March 2014	00-17 23-24 17-23	630 590	100	530 490	0	530 490		
		11-23	370		170		170		
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 MTO sched			
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
		17-23	9500		9300		2133		Generation Balance.

^{*} 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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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	Commissioning of 765kV Raichur-Sholapur S/C 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) 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 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									
	1st March 2014 to 6th March 2014	00-17 23-24	7800	800	7000	6445	555	100	Revised due to shutdown of TEESTA Power Station, 2.
NR^1	oth March 2014	17-23	7300		6500		55	-400	Revised due to change in
NK	7th March 2014 to 31st March 2014	00-17 23-24	8000	800	7200	6445	755	300	Inter-regional flow pattern & COD of Sasan UMPP Unit-2
		17-23	8000		7200		755		
NER ²	1st March 2014 to 31st March 2014	00-17 23-24	720	50	670	230	440		
	31st March 2014	17-23	720		670		440		
WR									

SR	1st March 2014 to	00-05 10-19	1750	0	1750	1657	93	200	Revised considering
SK	31st March 2014	05-10 19-24	1750	0	1750		93	200	operational experience and margins on HVDC

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		
	318t Watch 2014	17-23	3600		2900		2339		
NER	1st March 2014 to 31st March 2014	00-17 23-24	630	100	530	0	530		
	31st March 2014	17-23	590		490		490		
WR									
VV IX									
SR*	1st March 2014 to 31st March 2014	00-17 23-24	2100	0	2100	197	1903	·	
	518t Waren 2014	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

		(n-1) contingency of 400 kV Kahalgaon-Biharshariff
	Import	High loading of 765 kV Agra-Gwalior (1000 MW SPS setting on each circuit of 765 kV Gwalior-Agra)
NR -		(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.
	Export	(n-1) contingency of 400 kV Allahabad-Pusauli
	Import	(n-1) contingency of 400 kV Kahalgaon-Biharshariff
NER		· / · · · ·
	Export	(n-1) contingency of 315 MVA ICT at Misa
	÷ ,	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
SR	Import	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

National Load Despatch Centre Total Transfer Capability for March 2014

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

ASSUMPTIONS IN BASECASE

Month: March '14

Haryana				IOTILIT : IVIATCIT 14			
NORTHERN REGION Peak (MW) Peak (MW) Composition Composition			Loa	ad	Generation		
Punjab 5571 4510 2524 249 2 Haryana 5755 4779 3482 348 3 Rajasthan 8215 8320 4940 489 4 Delhi 4102 2950 1101 110 5 Uttar Pradesh 11500 10154 5957 586 6 Jammu & Kashmir 2249 1725 343 56 7 Uttarakhand 1582 1397 649 588 8 Himachal Pradesh 1353 1194 367 25 3 367 25 3 36 3 3 3 3 3 3 3	S.No.	Name of State/Area		Load	Peak (MW)		
2 Haryana 5755 4779 3482 348. 3 Rajasthan 8215 8320 4940 489. 4 Delhi 4102 2950 1101 110 5 Uttar Pradesh 11500 10154 5957 586 6 Jammu & Kashmir 2249 1725 343 56 7 Uttar Akhand 1562 1397 649 58 8 Himachal Pradesh 1353 1194 367 25 9 Chandigarh 238 138 0 0 10 ISGS/IPPs 17573 1154 Total NR 40564 35167 36936 3078 II EASTERN REGION 4797 400 1 West Bengal 6600 5100 4797 400 2 Jharkhand 1000 800 450 45 3 Orissa 3400 2600 2405 160	ı	NORTHERN REGION					
Rajasthan	1	Punjab	5571	4510	2524	2495	
4 Delhi 4102 2950 1101 110 5 Uttar Pradesh 11500 10154 5957 586 6 Jammu & Kashmir 2249 1725 343 56 7 Uttarakhand 1582 1397 649 586 8 Himachal Pradesh 1353 1194 367 253 9 Chandigarh 238 138 0 157573 11543 10 ISGS/IPPs 17573 115433 11543 115433	2	Haryana	5755	4779	3482	3482	
5 Uttar Pradesh 11500 10154 5997 586 6 Jammu & Kashmir 2249 1725 343 56 7 Uttarakhand 1582 1397 649 58 8 Himachal Pradesh 1353 1194 367 25 9 Chandigarh 238 138 0 60 10 ISGS/IPPs 17573 11547 Total NR 40564 35167 36936 3078 II EASTERN REGION 300 4797 4000 400 4797 4000 400 450	3	Rajasthan	8215	8320	4940	4892	
6 Jammu & Kashmir 2249 1725 343 56 7 Uttarakhand 1582 1397 649 588 8 Himachal Pradesh 1353 1194 367 25: 9 Chandigarh 238 138 0 6 10 ISGS/IPPS 17573 11543 Total NR 40564 35167 36936 30786 II EASTERN REGION 1	4	Delhi	4102	2950	1101	1101	
Uttarakhand	5	Uttar Pradesh	11500	10154	5957	5867	
8 Himachal Pradesh 1353 1194 367 253 9 Chandigarh 238 138 0 6 10 ISGS/IPPs 17573 11543 11543 11543 Total NR 40564 35167 36936 3078 II EASTERN REGION 5100 4797 4000 2 Jharkhand 1000 800 450 451 3 Orissa 3400 2600 2405 1600 4 Bihar 2000 1600 0 0 0 5 Damodar Valley Corporation 2600 2350 3600 339 6 6 Sikkim 90 50 0	6	Jammu & Kashmir	2249	1725	343	567	
9 Chandigarh 238 138 0 1 10 ISGS/IPPS 17573 1154: Total NR 40564 35167 36936 3078 II EASTERN REGION 1 1 West Bengal 6600 5100 4797 4000 2 Jharkhand 1000 800 455 455 3 Orissa 3400 2600 2405 1600 4 Bihar 2000 1600 0 0 5 Damodar Valley Corporation 2600 2350 3600 339 6 Sikkim 90 50 6 7 Bhutan 110 110 200 200 8 ISGS/IPPS 270 270 6849 649 Total ER 16070 12880 18301 1613 III WESTERN REGION 1 1 Chattisgarh 3236 2968 1629 1625 2 Madhya Pradesh 6961 5643 3847 3005 3 Maharashtra 16185 14018 11275 10527 4 Gujarat 11063 10565 10649 9005 5 Goa 422 283 0 66 Daman and Diu 239 240 0 67 Dadra and Nagar Haveli 588 552 0 682	7	Uttarakhand	1582	1397	649	580	
Total NR	8	Himachal Pradesh	1353	1194	367	253	
II EASTERN REGION	9	Chandigarh	238	138	0	0	
II EASTERN REGION 1 West Bengal 6600 5100 4797 4000 2 Jharkhand 1000 800 450 450 450 3 Orissa 3400 2600 2405 1600 4 Bihar 2000 1600 0 0 0 0 0 0 0 0 0	10	ISGS/IPPs			17573	11543	
1 West Bengal 6600 5100 4797 4000 2 Jharkhand 1000 800 450 451 3 Orissa 3400 2600 2405 1600 4 Bihar 2000 1600 0 0 5 Damodar Valley Corporation 2600 2350 3600 339° 6 Sikkim 90 50 0 0 7 Bhutan 110 110 200 200 8 ISGS/IPPs 270 270 6849 6490 Total ER 16070 12880 18301 1613° III WESTERN REGION 3236 2968 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 900 5 Goa 422		Total NR	40564	35167	36936	30780	
1 West Bengal 6600 5100 4797 4000 2 Jharkhand 1000 800 450 451 3 Orissa 3400 2600 2405 1600 4 Bihar 2000 1600 0 0 5 Damodar Valley Corporation 2600 2350 3600 339° 6 Sikkim 90 50 0 0 7 Bhutan 110 110 200 200 8 ISGS/IPPs 270 270 6849 6490 Total ER 16070 12880 18301 1613° III WESTERN REGION 3236 2968 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 900 5 Goa 422							
2 Jharkhand 1000 800 450 450 3 Orissa 3400 2600 2405 1600 4 Bihar 2000 1600 0 6 5 Damodar Valley Corporation 2600 2350 3600 339 6 Sikkim 90 50 9 9 50 9 9 200 200 200 200 200 200 200 200 200 200 8 110 110 200	П	EASTERN REGION					
3 Orissa 3400 2600 2405 1600 4 Bihar 2000 1600 0 0 5 Damodar Valley Corporation 2600 2350 3600 3399 6 Sikkim 90 50 0 7 Bhutan 110 110 200 200 8 ISGS/IPPS 270 270 6849 6490	1	West Bengal	6600	5100	4797	4000	
4 Bihar 2000 1600 0 0 5 Damodar Valley Corporation 2600 2350 3600 339° 6 Sikkim 90 50 0	2	Jharkhand	1000	800	450	450	
5 Damodar Valley Corporation 2600 2350 3600 339 6 Sikkim 90 50 200 200 7 Bhutan 110 110 200 200 200 8 ISGS/IPPs 270 270 6849 6490 Total ER 16070 12880 18301 1613 III WESTERN REGION 1 Chattisgarh 3236 2968 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 9003 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 11111 <t< td=""><td>3</td><td>Orissa</td><td>3400</td><td>2600</td><td>2405</td><td>1600</td></t<>	3	Orissa	3400	2600	2405	1600	
6 Sikkim 90 50	4	Bihar	2000	1600	0	0	
7 Bhutan 110 110 200 200 8 ISGS/IPPS 270 270 6849 6490 Total ER 16070 12880 18301 1613 III WESTERN REGION 1 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 10522 4 Gujarat 11063 10565 10649 9003 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	5	Damodar Valley Corporation	2600	2350	3600	3397	
8 ISGS/IPPs 270 270 6849 649 Total ER 16070 12880 18301 1613 III WESTERN REGION 1 Chattisgarh 3236 2968 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 9003 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	6	Sikkim	90	50		0	
Total ER 16070 12880 18301 1613 III WESTERN REGION 3236 2968 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 10522 4 Gujarat 11063 10565 10649 9003 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	7	Bhutan	110	110	200	200	
III WESTERN REGION	8	ISGS/IPPs	270	270	6849	6490	
1 Chattisgarh 3236 2968 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 9003 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 ER	16070	12880	18301	16137	
1 Chattisgarh 3236 2968 1629 1629 2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 9003 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							
2 Madhya Pradesh 6961 5643 3847 3003 3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 9003 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	III	WESTERN REGION					
3 Maharashtra 16185 14018 11275 1052 4 Gujarat 11063 10565 10649 900 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	1	Chattisgarh	3236	2968	1629	1629	
4 Gujarat 11063 10565 10649 9002 5 Goa 422 283 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2	Madhya Pradesh	6961	5643	3847	3003	
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	3	Maharashtra	16185	14018	11275	10527	
6 Daman and Diu 239 240 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4	Gujarat	11063	10565	10649	9002	
7 Dadra and Nagar Haveli 588 552 0 688 18GS/IPPs 1291 1111 18555 16029	5	Goa	422	283	0	0	
8 ISGS/IPPs 1291 1111 18555 16029	6	Daman and Diu	239	240	0	0	
1000 1002	7	Dadra and Nagar Haveli	588	552	0	0	
Total WR 39985 35380 45955 4019	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
٧	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
	Tatal All In Un	10.50	444654	40=	110071
	Total All India	135341	114264	137341	116051