National Load Despatch Centre Total Transfer Capability for June 2014

Issue Date: 11/04/2014 Issue Time: 1300 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 June 2014 to 30th June 2014	00-24	2500	500	2000	361	1639		
WR-NR ¹	1st June 2014 to 30th June 2014	00-17 23-24 17-23	4200 4200	500	3700 3700	3656	44 44		
NR-ER*	1st June 2014 to 30th June 2014	00-17 23-24 17-23	1000 1100	200	800 900	200	600 700		
ER-NR ^{\$}	1st June 2014 to 30th June 2014	00-17 23-24 17-23	3800	300	3500	2789	711 711		
W3-ER	1st June 2014 to 30th June 2014	00-24	1800	300	1500	0	1500		
ER-W3	1st June 2014 to 30th June 2014	00-24	1000	300	700	700	0		
WR-SR	1st June 2014 to 30th June 2014	00-24	1000	0	1000	1000	0		
SR-WR*	1st June 2014 to 30th June 2014	00-24	1000	0	1000	0	1000		
ER-SR	1st June 2014 to 30th June 2014	00-05 10-19 05-10 19-24	750 750	0	750 750	657	93 93		Margin revised due to correction of LTA. 69 MW LTA Quantum inadvertently added in the last revision
SR-ER *	1st June 2014 to 30th June 2014	00-17 23-24 17-23	1100 1100	0	1100 1100	197	903 903		
ER-NER	1st June 2014 to 30th June 2014	00-17 23-24 17-23	550 550	50	500 500	230	270 270		
NER-ER	1st June 2014 to 30th June 2014	00-17 23-24 17-23	500 450	100	400 350	0	400 350		
S1-S2	1st June 2014 to 30th June 2014	00-24	6200	500	5700	5508	192		
Import of Punjab	1st June 2014 to 30th June 2014	00-24	5600	300	5300	3800	1500		
Import TTC for DD & DNH	1st June 2014 to 30th June 2014	00-24	980	0	980	LTA and MTO			
W3 zone Injection	1st June 2014 to 30th June 2014	00-17 23-24 17-23	9000 9500	200	8800 9300	6815	1985 2485		
		17-23	7500		7500		2703		

^{*} 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).

\$ 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.

- 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 one circuit of 765 kV Gwalior-Agra

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 one circuit of 400kV Farakka –Malda D/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	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	(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 ¹	1st June 2014 to 30th June 2014	00-17 23-24	8000	800	7200	6445	755		
NK		17-23	8000		7200		755		
NER	1st June 2014 to 30th June 2014	00-17 23-24	550	50	500	230	270		
	30th June 2014	17-23	550		500		270		
WR									
SR	1st June 2014 to 30th June 2014	00-05 10-19	1750	0	1750	1.555	93		Margin revised due to correction of LTA. 69
		05-10 19-24	1750		1750	1657	93		MW LTA Quantum inadvertently added in the last revision.

1. WR-NR Total Transfer capability will be reduced to 3100 MW in case of outage of one circuit of 765 kV Gwalior-Agra

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 June 2014 to	00-17 23-24	3500	700	2800	561	2239		
	30th June 2014	17-23	3600		2900		2339		
NER	1st June 2014 to 30th June 2014	00-17 23-24	500	100	400	0	400		
		17-23	450		350		350		
WR									

SR*	1st June 2014 to 30th June 2014	00-17 23-24	2100	0	2100	197	1903		
	30th Julie 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

NR	Import	(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)
11K	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 one circuit of 400 kV Balipara – Bongaigaon D/C
NEK	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
SR	Import	 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.
	Export	(n-1) and (n-1-1) contingencies of 400kV Talcher-Rourkela D/C

^{*}Primary constraints

National Load Despatch Centre Total Transfer Capability for June 2014

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected				
		1	Margin revised due to withdrawal/cancellation of 150 MW MTOA from Corporate Power Limited					
1	25.03.2014		Re-Routing of transactions on West-East-North Corridor discontinued on account of Inter-Regional Loop flows leading to physical congestion on WR-NR.	WR-NR/ ER-NR				
			Margin Revised due to correction in LTA/MTOA figure.	NR-WR				
2	01-04-2014	2	Margin revised due to grant of 150 MW LTA towards SR from NEW grid and grant of 208 MW LTA to TANGEDCO	ER-SR / S1-S2				
3	04-04-2014	3	Margin revised due to grant of 69 MW LTA to Jindal Power Limited Tamnar	W3/ ER-SR				
4	11-04-2014	4	Margin revised due to correction of LTA. 69 MW LTA Quantum inadvertently added in the last revision	ER-SR				

ASSUMPTIONS IN BASECASE

Month: June '14

2 Haryana 6743 6353 3958 3958 3 Rajasthan 7803 7383 5144 5134 4 Delhi 5199 5053 1382 1382.4 5 Uttar Pradesh 12165.2 12581 6114.5 6128 6 Jammu & Kashmir 1954 1798 546 564 7 Uttarakhand 1656 1509 496 491 8 Himachal Pradesh 1503 1361 852 821 9 Chandigarh 294 225 0 0 10 ISGS/IPPs 19790 17328 Total NR 46124 44780 41447 39009 II EASTERN REGION 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40		Worth . 3dri								
NORTHERN REGION Peak (MW) Control Peak (MW) Peak (MW) Peak (MW) Control Peak (MW) Peak (MW) Peak (MW) Control Peak (MW)			Loa	ad	Generation					
Punjab	S.No.	Name of State/Area		Load	Peak (MW)					
2 Haryana 6743 6353 3958 3958 3 Rajasthan 7803 7383 5144 5134 4 Delhi 5199 5053 1382 1382.4 5 Uttar Pradesh 12165.2 12581 6114.5 6128 6 Jammu & Kashmir 1954 1798 546 564 7 Uttarakhand 1656 1509 496 491 8 Himachal Pradesh 1503 1361 852 821 9 Chandigarh 294 225 0 0 0 10 ISGS/IPPs 19790 17328 Total NR 46124 44780 41447 39009 II EASTERN REGION 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86<	ı	NORTHERN REGION								
Rajasthan	1	Punjab	8807	8517	3164	3203				
Delhi S199 5053 1382 1382.45	2	Haryana	6743	6353	3958	3958				
5 Uttar Pradesh 12165.2 12581 6114.5 6128 6 Jammu & Kashmir 1954 1798 546 564 7 Uttarakhand 1656 1509 496 491 8 Himachal Pradesh 1503 1361 852 821 9 Chandigarh 294 225 0 0 10 ISGS/IPPs 19790 17328 II EASTERN REGION 46124 44780 41447 39009 1 West Bengal 7059 4711 5170 4021 2 Jharkhand 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40 40 40 40 40 40 40	3	Rajasthan	7803	7383	5144	5134				
6 Jammu & Kashmir 1954 1798 546 564 564 7 Uttarakhand 1656 1509 496 491 8 Himachal Pradesh 1503 1361 852 821 9 Chandigarh 294 225 0 0 0 10 ISGS/IPPS 19790 17328 Total NR 46124 44780 41447 39009 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 17328 19790 1979	4	Delhi	5199	5053	1382	1382.4				
Total Name	5	Uttar Pradesh	12165.2	12581	6114.5	6128				
8 Himachal Pradesh 1503 1361 852 821 9 Chandigarh 294 225 0 0 10 ISGS/IPPs 19790 17328 Total NR 46124 44780 41447 39009 II EASTERN REGION Vest Bengal 7059 4711 5170 4021 2 Jharkhand 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40	6	Jammu & Kashmir	1954	1798	546	564				
9 Chandigarh 294 225 0 0 0 10 ISGS/IPPs 19790 17328 Total NR 46124 44780 41447 39009 II EASTERN REGION 1 West Bengal 7059 4711 5170 4021 2 Jharkhand 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40 7 Bhutan 109 109 1235 1235 8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 1 Chattisgarh 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPS 1240 1240 17104 16275	7	Uttarakhand	1656	1509	496	491				
Total NR 46124 44780 41447 39009 II EASTERN REGION Image: Control of the control of t	8	Himachal Pradesh	1503	1361	852	821				
I	9	Chandigarh	294	225	0	0				
II EASTERN REGION	10	ISGS/IPPs			19790	17328				
1 West Bengal 7059 4711 5170 4021 2 Jharkhand 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40 7 Bhutan 109 109 1235 1235 8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 1 Chattisgarh 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104		Total NR	46124	44780	41447	39009				
1 West Bengal 7059 4711 5170 4021 2 Jharkhand 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40 7 Bhutan 109 109 1235 1235 8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 1 Chattisgarh 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104										
2 Jharkhand 1108 808 590 590 3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40 4	П	EASTERN REGION								
3 Orissa 3640 2570 3181 2432 4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40	1	West Bengal	7059	4711	5170	4021				
4 Bihar 2030 1500 70.5 70.5 5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40 7 Bhutan 109 109 1235 1235 8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104 16275	2	Jharkhand	1108	808	590	590				
5 Damodar Valley Corporation 2460 2030 3179 2989 6 Sikkim 86 40 7 Bhutan 109 109 1235 1235 8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380	3	Orissa	3640	2570	3181	2432				
6 Sikkim 86 40 7 Bhutan 109 109 1235 1235 8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION VIIII VIIIII WESTERN REGION VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	4	Bihar	2030	1500	70.5	70.5				
7 Bhutan 109 109 1235 1235 8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 <td< td=""><td>5</td><td>Damodar Valley Corporation</td><td>2460</td><td>2030</td><td>3179</td><td>2989</td></td<>	5	Damodar Valley Corporation	2460	2030	3179	2989				
8 ISGS/IPPs 245 245 8845 8315 Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104 16275	6	Sikkim	86	40						
Total ER 16737 12013 22270.5 19652.5 III WESTERN REGION 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 380 380 60 60 60 250 250 60 7 Dadra and Nagar Haveli 604 590 604 590 8 18GS/IPPs 1240 1240 17104 16275	7	Bhutan	109	109	1235	1235				
III WESTERN REGION 1 Chattisgarh 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104 16275	8	ISGS/IPPs	245	245	8845	8315				
1 Chattisgarh 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 <		Total ER	16737	12013	22270.5	19652.5				
1 Chattisgarh 2787 2487 1833 1584 2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 <										
2 Madhya Pradesh 6200 4995 3890 2566 3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 <th>III</th> <th>WESTERN REGION</th> <th></th> <th></th> <th></th> <th></th>	III	WESTERN REGION								
3 Maharashtra 17114 13154 11768 7999 4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 3	1	Chattisgarh	2787	2487	1833	1584				
4 Gujarat 11946 10080 9539 8469 5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104 16275	2		6200	4995	3890	2566				
5 Goa 262 380 6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104 16275	3	Maharashtra	17114	13154	11768	7999				
6 Daman and Diu 250 250 7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104 16275	4	Gujarat	11946	10080	9539	8469				
7 Dadra and Nagar Haveli 604 590 8 ISGS/IPPs 1240 1240 17104 16275	5	Goa	262	380						
8 ISGS/IPPs 1240 1240 17104 16275	6	Daman and Diu	250	250						
11101 10210	7	Dadra and Nagar Haveli	604	590						
Total WR 40403 33176 44134 36893	8	ISGS/IPPs	1240	1240	17104	16275				
		Total WR	40403	33176	44134	36893				

IV	SOUTHERN REGION				
1	Andhra Pradesh	10848	9446	6571	5881
2	Tamil Nadu	12152	10588	8026	7002
3	Karnataka	8397	7303	6100	4619
4	Kerala	3390	2595	1781	863
5	Pondy	329	278		
6	Goa	83	83		
7	ISGS/IPPs			11027	10260
	Total SR	35199	30293	33505	28625
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	120	84	0	0
2	Assam	1380	990	250	225
3	Manipur	125	88	0	0
4	Meghalaya	300	210	60	55
5	Mizoram	75	53	4	4
6	Nagaland	110	77	12	12
7	Tripura	230	130	110	110
8	ISGS/IPPs			1592	1262
	Total NER	2340	1632	2028	1668
	Total All India	4.40522	101551	4.4000.4	405040
	Total All India	140803	121894	143384	125848