National Load Despatch Centre Total Transfer Capability for April 2015

Issue Date: 02/03/2015 Issue Time: 1500 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 April 2015 to 30th April 2015	00-24	2500	500	2000	706	1294		
WR-NR	1st April 2015 to 30th April 2015	00-17 23-24 17-23	4900 4900	500	4400 4400	4767	0		
NR-ER*	1st April 2015 to 30th April 2015	00-06 06-18' 18-24	2000 2000 2000	200	1800 1800 1800	293 358 293	1507 1442 1507		
ER-NR	1st April 2015 to 30th April 2015	00-17 23-24 17-23	3000 3000	300	2700 2700	2431	269 269		
W3-ER ^{\$}	1st April 2015 to 30th April 2015	00-24	1800	300	1500	583	917		STOA Margins revised due to grant of MTOA from Chattisgarh to KSEB by CTU.
ER-W3	1st April 2015 to 30th April 2015	00-24	1000	300	700	874	0		,
WR-SR	1st April 2015 to 30th April 2015	00-24	2100	750	1350	1350	0		
SR-WR *	1st April 2015 to 30th April 2015	00-24		No limit is being Specified.					
ER-SR	1st April 2015 to 30th April 2015	00-06 18-24 06-18'	2650	0	2650	2585 2650	65 0		
SR-ER *	1st April 2015 to 30th April 2015	00-24				No limit is	s being Specified.		
ER-NER	1st April 2015 to 30th April 2015	00-17 23-24 17-23	670 670	40	630 630	210	420 420		
NER-ER	1st April 2015 to 30th April 2015	00-17 23-24 17-23	545 450	30 40	515 410	0	515 410		
									Deviced devices and it is a
S1-S2	1st April 2015 to 30th April 2015	00-24	2885	315	2570	2535	35	-185	Revised due to commissioning of Kudankulam Unit-1, Coastal energen Unit-1 and Vallur Unit-3
Import of Punjab	1st April 2015 to 30th April 2015	00-24	5700	300	5400	3790	1610		
Import TTC for DD & DNH	1st April 2015 to 30th April 2015	00-24	1200	0	1200		OA as per ex-pp edule		
W3 zone Injection	1st April 2015 to 30th April	00-17 23-24	9400	200	9200	7094	2106		STOA Margins revised due to grant of MTOA from Chattisgarh to
J	2015	17-23	9900		9700		2606		KSEB by CTU.

^{*} 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).

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Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA) #	Available for Short Term Open Access	Changes in TTC w.r.t. Last Revision	Comments
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^{\$} 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 Sell transaction, b) Jindal Power Limited (JPL) Stage-I & Stage-II, 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, n)Vandana Vidyut

The figure is based on LTA/MTOA approved by CTU and Allocation figures as per RPCs RTA/REA. In actual Operation, due to Units being on Maintenance/Fuel shortage/New units being commissionned the LTA/MTOA utilized would vary. RLDC/NLDC would factor this situation on day-ahead basis. In the eventuality that net schedules exceed ATC, real time curtailments might be effected by RLDCs/NLDC.

In case of TTC Revision due to any shutdown:

- 1) The TTC value will be revised to normal values after restoration of shutdown.
- 2) The TTC value will be revised to normal values if the shutdown is not being availed in real time.

Limiting Constraints

NR-WR (n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. High Loading of 400kV Singrauli-Anpara & High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and Loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda). NR-ER (n-1) contingency of 400 kV Saranath-Pusauli ER-NR (n-1) contingency of 400 kV MPL-Maithon S/C ii. (n-1) contingency of 400kV Sterlite-Rourkela S/C ER-W3 (n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela 1. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG) VR-SR & ZER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case	Corridor	Constraint					
High Loading of 400kV Singrauli-Anpara & High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and Loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda). NR-ER (n-1) contingency of 400 kV Saranath-Pusauli (n-1) contingency of Kahalgaon-Banka S/C i. (n-1) contingency of 400 kV MPL-Maithon S/C ii. (n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela 1. (n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela 1. (n-1) contingency of 400kV Parli(PG)-Sholapur(PG) 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge. (n-1) contingency of Kahalgaon-Banka S/C (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa S1-S2 (n-1) contingency of 400/220kV 315MVA ICT at VAPI Import of Du & DNH Import of Punjab (n-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-Bhadrawati D/C section and High loading of							
ER-NR (n-1) contingnecy of Kahalgaon-Banka S/C i. (n-1) Contingency of 400 kV MPL-Maithon S/C ii. (n-1) contingency of 400kV Sterlite-Rourkela S/C ER-W3 (n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela I. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG) 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge. ER-NER (n-1) contingency of Kahalgaon-Banka S/C (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa (n-1) contingency of 400/220 kV Kolar-Hosur D/C Import of DD & DNH Import of Punjab W3 zone (n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-		High Loading of 400kV Singrauli-Anpara & High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and Loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra D/C and from NR to WR on					
i. (n-1) Contingency of 400 kV MPL-Maithon S/C ii. (n-1) contingency of 400kV Sterlite-Rourkela S/C ER-W3 (n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela I. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG) 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge. ER-NER (n-1) contingency of Kahalgaon-Banka S/C (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa (n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C Import of DD & DNH Import of DD & DNH Import of Punjab (n-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-	NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli					
ii. (n-1) contingency of 400kV Sterlite-Rourkela S/C (n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela (n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela 1. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG) 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge. (n-1) contingency of Kahalgaon-Banka S/C (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa S1-S2 (n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C Import of DD & DNH Import of Punjab W3 zone (n-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-	ER-NR	(n-1) contingnecy of Kahalgaon-Banka S/C					
WR-SR & ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge. ER-NER (n-1) contingency of Kahalgaon-Banka S/C (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa (n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C (n-1) contingency of 400/220KV 315MVA ICT at VAPI Import of DD & DNH Import of Punjab (n-1) contingency of ICT at Dhuri and (n-1) contingency of 220kV Moga(PG)-Moga(PSTCL) W3 zone (n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-	W3-ER						
WR-SR & ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would emerge. ER-NER (n-1) contingency of Kahalgaon-Banka S/C (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa (n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C (n-1) contingency of 400/220KV 315MVA ICT at VAPI Import of Punjab (n-1) contingency of ICT at Dhuri and (n-1) contingency of 220kV Moga(PG)-Moga(PSTCL) W3 zone (n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-	ER-W3	(n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela					
NER-ER (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA ICT at Misa S1-S2 (n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C Import of DD & DNH Import of Punjab (n-1) contingency of 400/220KV 315MVA ICT at VAPI W3 zone (n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-		2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as					
NER-ER kV, 315 MVA ICT at Misa S1-S2 (n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C Import of DD & DNH Import of Punjab (n-1) contingency of 400/220KV 315MVA ICT at VAPI W3 zone (n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-	ER-NER	(n-1) contingnecy of Kahalgaon-Banka S/C					
Import of DD & DNH Import of Punjab W3 zone (n-1) contingency of 400/220KV 315MVA ICT at VAPI (n-1) contingency of ICT at Dhuri and (n-1) contingnecy of 220kV Moga(PG)-Moga(PSTCL) (n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-	NER-ER						
Import of Punjab (n-1) contingency of 400/220KV 315MVA ICT at VAPT	S1-S2	(n-1) contingency of one circuit of 400 kV Kolar-Hosur D/C					
Punjab (n-1) contingency of ICT at Dhuri and (n-1) contingnecy of 220kV Moga(PG)-Moga(PSTCL) W3 zone (n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-	DD & DNH	(n-1) contingency of 400/220KV 315MVA ICT at VAPI					
(ii 1 1) contingency of too it trainful Brautaward Bro section and rings routing of tools. Trainful	Punjab	(n-1) contingency of ICT at Dhuri and (n-1) contingnecy of 220kV Moga(PG)-Moga(PSTCL)					
*Primary constraints		Wardha (850 MW SPS setting on each circuit of 400kV 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	1st April 2015 to 30th April 2015	00-17 23-24 17-23	7900 7900	800	7100 7100	7198	0		
NER	1st April 2015 to 30th April 2015	00-17 23-24 17-23	670 670	40	630	210	420		
WR		17 23	070		050		120		
SR	1st April 2015 to 30th April 2015	00-06 18-24	4750	750	4000	3935	65		
	2010	06-18'	4750		4000	4000	0		

Simultaneous Export Capability

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Medium Term	Margin Available for Short Term Open Access (STOA)	Changes in TTC w.r.t. Last Revision	Comments	
1 at A mril 2015 to	1st April 2015 to	00-06	4500	4500 4500	3800	999	2801			
NR*	30th April 2015	06-17'	4300		3800	1064	2736			
		23-24	4500		3800	999	2801			
NER	1st April 2015 to 30th April 2015	00-17 23-24	545	30	515	0	515			
	30th April 2013	17-23	450	40	410		410			
WR										
WK										
SR *	1st April 2015 to 30th April 2015	00-24		No limit is being Specified.						

^{*} 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) contingnecy of Kahalgaon-Banka S/C
NR Import Export	Import	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high
	Import	loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV
		Gwalior-Agra D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda).
	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.	
Export		(n-1) contingency of 400 kV Saranath-Pusauli
NER	Import	(n-1) contingnecy of Kahalgaon-Banka S/C
NEK	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa
		1. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)
CD	T	2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher
SR	Import	Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within
		ER would emerge.

^{*}Primary constraints

National Load Despatch Centre Total Transfer Capability for April 2015

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	12-02-2015	Whole Month	Margin revised due to cancellation of LTA/MTOA.	NR-WR/ ER- W3
2	02-03-2015	Whole	STOA Margins revised due to grant of MTOA from Chattisgarh to KSEB by CTU.	W3-ER/ W3 Zone
2 02-03-2013	02-03-2013	Month	Revised due to commissioning of Kudankulam Unit-1, Coastal energen Unit-1 and Vallur Unit-3	S1-S2

ASSUMPTIONS IN BASECASE

Month: Apr '15

		_			Month Apr 15		
		Loa	ad	Generation			
S.No.	Name of State/Area	Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)		
I	NORTHERN REGION						
1	Punjab	5409	4445	3101	2272		
2	Haryana	5737	4159	1726	1522		
3	Rajasthan	7500	5646	5073	4432		
4	Delhi	4025	2614	1009	650		
5	Uttar Pradesh	11849	12777	5434	5454		
6	Jammu & Kashmir	2100	1779	650	588		
7	Uttarakhand	1344	1113	480	343		
8	Himachal Pradesh	1293	927	530	423		
9	Chandigarh	186	114	0	0		
10	ISGS/IPPs	0	0	15905	12209		
	Total NR	39443	33574	33908	27893		
II	EASTERN REGION						
1	West Bengal	7200	5800	5000	4000		
2	Jharkhand	1100	850	470	350		
3	Orissa	3800	3100	2900	2150		
4	Bihar	2550	2100	110	0		
5	Damodar Valley Corporation	2650	2200	3300	2750		
6	Sikkim	95	60	-	-		
7	Bhutan	-	-	235	175		
8	ISGS/IPPs			9520	8395		
	Total ER	17395	14110	21535	17820		
III	WESTERN REGION						
1	Chattisgarh	3486	3181	1610	1473		
2	Madhya Pradesh	7270	5274	3570	1181		
3	Maharashtra	19386	15678	15142	10934		
4	Gujarat	13740	9287	9985	5532		
5	Goa	410	340	0	0		
6	Daman and Diu	253	261	0	0		
7	Dadra and Nagar Haveli	588	626	0	0		
8	ISGS/IPPs	0	0	20446	20446		
	Total WR	45133	34647	50753	39566		

ASSUMPTIONS IN BASECASE

Month: Apr '15

		Loa	ad	Generation		
S.No.	Name of State/Area	Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)	
IV	SOUTHERN REGION					
1	Telangana	5832	5116	2399	2197	
2	Andhra Pradesh	5307	4653	5314	4759	
3	Tamil Nadu	10840	9969	6783	5823	
4	Karnataka	7890	6637	6897	4860	
5	Kerala	3341	2427	2082	1081	
6	Pondy	340	245			
7	Goa	89	89			
8	ISGS/IPPs			7730	7730	
	Total SR	33639	29136	31205	26450	
V	NORTH-EASTERN REGION					
1	Arunachal Pradesh	69	31	0	0	
2	Assam	749	566	225	160	
3	Manipur	68	40	0	0	
4	Meghalaya	201	106	104	44	
5	Mizoram	51	31	4	3	
6	Nagaland	63	53	10	6	
7	Tripura	228	161	104	104	
8	ISGS/IPPs			856	578	
	Total NER	1429	988	1303	895	
	Total All India	137039	112455	138704	112624	