## National Load Despatch Centre Total Transfer Capability for March 2015

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 2015 to 31st March 2015	00-24	2500	500	2000	706	1294		
WR-NR	1st March 2015 to 31st March 2015	00-24	4200	500	3700	4768	0		
NR-ER*	1st March 2015 to 31st March 2015	00-06 18-24 06-18'	2000	200	1800 1800	293 358	1507 1442		
ER-NR	1st March 2015 to 31st March 2015	00-18 00-17 23-24 17-23	3100 3200	300	2800	2431	369 469		
		17-23	3200		2700		407	<u> </u>	
W3-ER <sup>\$</sup>	1st March 2015 to 4th March 2015	00-24	1800	300	1500	351	1149		STOA Margin revised due to grant
W3-EK	5th March 2015 to 31st March 2015	00-24	1800	300	1500	583	917		of MTOA from Chattisgarh to KSEB by CTU.
ER-W3	1st March 2015 to 31st March 2015	00-24	1000	300	700	874	0		
WR-SR##	1st March 2015 to 31st March 2015	00-24	2100	750	1350	1350	0		
SR-WR *	1st March 2015 to 31st March 2015	00-24				No limit is	s being Specified.		
ER-SR##	1st March 2015 to 31st March 2015	00-06 18-24 06-18'	2650	0	2650	2585 2650	65 0		
SR-ER *	1st March 2015 to 31st March 2015	00-18					s being Specified.		
ER-NER	1st March 2015 to 31st March 2015	00-17 23-24 17-23	650 720	40	610 680	210	400 470		
NER-ER	1st March 2015 to 31st March 2015	00-17 23-24	990	30	960	0	960		
		17-23	1050	40	1010		1010		
	1st March 2015	00-10 10-13' 13-22 22-24	2875 2625 2875 3190	315	2560 2310 2560 2875	2535	25 0 25 340		
	2nd March 2015 to 4th March 2015	00-24	3190	315	2875	2535	340		
S1-S2	5th March 2015	00-08 08-18' 18-24	3190 3040 3190	315	2875 2725 2875	2535	340 190 340	-150	Revised due to 220kV Kadakola - Kaniyampeta Shutdown.
	6th March 2015 to 10th March 2015	00-24	3190	315	2875	2535	340		
	11th March 2015 to 31st March 2015	00-24	2875	315	2560	2535	25		
Import of Punjab	1st March 2015 to 31st March 2015	00-24	5700	300	5400	3790	1610		
Import TTC for DD & DNH	1st March 2015 to 31st March 2015	00-24	1200	0	1200		OA as per ex-pp edule		
		00-17	9400		9200		2338		
W3 zone	1st March 2015 to 4th March 2015	23-24 17-23	9900	200	9700	6862	2838		

#### National Load Despatch Centre Total Transfer Capability for March 2015

Issue Date: 03/03/2015 Issue Time: 1815 hrs Revision No. 7

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
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<sup>\*</sup> 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) S1 comprises of AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Pondicherry
- 2) 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

## 232 MW MTOA w.e.f 01.03.2015 was approved by CTU. CERC vide order dated 16-02-2015 in petition no. 92/MP/2014 is under further implementation by CTU as per the timelines given in the order. Pending this any margins would be released for short term transactions on day ahead basis.

# 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**

Corridor	Constraint							
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.							
WR-NR	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) contingnecy of Kahalgaon-Banka S/C							
W3-ER	<ul><li>i. (n-1) Contingency of 400 kV MPL-Maithon S/C</li><li>ii. (n-1) contingency of 400kV Sterlite-Rourkela S/C</li></ul>							
ER-W3	(n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela							
WR-SR & ER-SR	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.							
ER-NER	(n-1) contingnecy of Kahalgaon-Banka S/C							
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							
Import of DD & DNH	(n-1) contingency of 400/220KV 315MVA ICT at VAPI							
Import of Punjab	(n-1) contingency of ICT at Dhuri and (n-1) contingnecy of 220kV Moga(PG)-Moga(PSTCL)							
W3 zone Injection	(n-1-1) contingency of 400 kV Raipur-Bhadrawati D/C section and High loading of 400kV Raipur-Wardha (850 MW SPS setting on each circuit of 400kV Raipur-Wardha)							
	*Primary constraints							

<sup>\*</sup>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 March 2015 to 31st March 2015	00-17 23-24 17-23	7300 7400	800	6500 6600	6811	0		
NER	1st March 2015 to 31st March 2015	00-17 23-24 17-23	650 720	40	610 680	210	400 470		
WR									
SR##	1st March 2015 to 31st March 2015	00-06 18-24 06-18'	4750 4750	750	4000 4000	3935 4000	65 0		

#### **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 2015 to 31st March 2015	00-06 18-24	4500	700	3800	999	2801			
	31st Watch 2013	06-18'			3800	1064	2736			
NER	1st March 2015 to	00-17 23-24	990	30	960	0	960			
NEK	31st March 2015	17-23	1050	40	1010	U	1010			
WR										
VV IX										
SR *	1st March 2015 to 31st March 2015	00-24		No limit is being Specified.						

<sup>\*</sup> 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).

## 232 MW MTOA w.e.f 01.03.2015 was approved by CTU. CERC vide order dated 16-02-2015 in petition no. 92/MP/2014 is under further implementation by CTU as per the timelines given in the order. Pending this any margins would be released for short term transactions on day ahead basis.

### **Limiting Constraints**

		(n-1) contingnecy of Kahalgaon-Banka S/C
	Import	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high
NR	Import	loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV
INK		Gwalior-Agra D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda).
	E-mant	(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)
SR	Transport	2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher
SK	Import	Stage-2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within
		ER would emerge.

<sup>\*</sup>Primary constraints

### National Load Despatch Centre Total Transfer Capability for March 2015

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected				
1	1 29-12-2014		Margin revised due to change in LTA/MTOA.					
		Month	Margin revised due to COD of Sasan Unit-5.	WR-NR				
2	12-02-2015	Whole Month	Margin revised due to cancellation of LTA/MTOA	NR-WR/ ER- W3				
3	23-02-2015	Whole Month	Revised considering the LGBR changes given by constituents in 104th SRPC OCC meeting, Kudankulam Unit-1 and Energen Unit-1 Commissioning.	S1-S2				
		Whole	Revised due to Commissioning of Vallur Unit-3.					
4	4 25-02-2015 N		Revised considering full generation at Rihand/Singrauli complex.	WR-NR				
5	_		Revised due to shutdown of 400kV Pugalur-Kalivendapattu Ckt-2	S1-S2				
3	28-02-2015	Whole month	Rveised due to commissioning of new transmission elements in NER.	ER-NER/ NER- ER				
6	01-03-2015	1/3/2015 - 10/3/2015	Revised due to NCTPS Unit-1 Outage.	S1-S2				
7 03-03-2015		5/3/2015 - 31/3/2015	STOA Margin revised due to grant of MTOA from Chattisgarh to KSEB by CTU.	W3 Zone/ W3-ER				
,	03-03-2013	05-03-2015	Revised due to 220kV Kadakola - Kaniyampeta Shutdown.	S1-S2				

# **ASSUMPTIONS IN BASECASE**

Month: Mar '15

		L	oad	Generation		
S.No.	Name of State/Area	Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)	
ı	NORTHERN REGION					
1	Punjab	4960	3131	2800	2520	
2	Haryana	5400	3758	1864	1677	
3	Rajasthan	9200	8267	4974	4974	
4	Delhi	3600	1700	935	935	
5	Uttar Pradesh	10650	11162	5443	5443	
6	Jammu & Kashmir	1850	1994	244	244	
7	Uttarakhand	1650	1115	507	190	
8	Himachal Pradesh	1186	812	177	64	
9	Chandigarh	189	97	0	0	
10	ISGS/IPPs			15776	10793	
	Total NR	38685	32036	32720	26840	
II	EASTERN REGION					
1	West Bengal	5218	5202	3734	3802	
2	Jharkhand	985	749	427	435	
3	Orissa	3677	2354	1597	1625	
4	Bihar	2216	1605	104	106	
5	Damodar Valley Corporation	2561	2354	3211	3269	
6	Sikkim	79	43			
7	Bhutan	107	107	110	110	
8	ISGS/IPPs	513	511	8144	8100	
	Total ER	15356	12925	17327	17447	
III	WESTERN REGION					
1	Chattisgarh	3117	2765	1915	2062	
2	Madhya Pradesh	10300	5308	5801	1000	
3	Maharashtra	20963	13907	16531	8763	
4	Gujarat	11198	10475	8946	7757	
5	Goa	425	339			
6	Daman and Diu	262	252			
7	Dadra and Nagar Haveli	608	596			
8	ISGS/IPPs	1070	1070	22377	21836	
	Total WR	47943	34712	55570	41418	

# **ASSUMPTIONS IN BASECASE**

Month: Mar '15

		L	oad	Generation		
S.No.	Name of State/Area	Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)	
IV	SOUTHERN REGION					
1	Telangana	6171	5323	3075	2367	
2	Andhra Pradesh	5675	4894	5324	4762	
3	Tamil Nadu	11093	9415	6869	5865	
4	Karnataka	7684	6791	6896	4852	
5	Kerala	3532	2358	2331	873	
6	Pondy	335	266			
7	Goa	89	87			
8	ISGS/IPPs			7730	7730	
	Total SR	34579	29134	32225	26449	
V	NORTH-EASTERN REGION					
1	Arunachal Pradesh	66	33	0	0	
2	Assam	713	609	220	190	
3	Manipur	74	49	0	0	
4	Meghalaya	166	84	77	17	
5	Mizoram	51	34	6	4	
6	Nagaland	57	52	7	3	
7	Tripura	227	153	103	100	
8	ISGS/IPPs			1089	680	
	Total NER	1354	1015	1502	994	
	Total All India	127047	100001	120211	442440	
	Total All India	137917	109821	139344	113148	