

National Load Despatch Centre
Total Transfer Capability for March 2015

Issue Date: 28/02/2015

Issue Time: 1115 hrs

Revision No. 5

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	2000	200	1800	293	1507		
		06-18'	2000		1800	358	1442		
ER-NR	1st March 2015 to 31st March 2015	00-17 23-24	3100	300	2800	2431	369		
		17-23	3200		2900		469		
W3-ER ^{\$}	1st March 2015 to 31st March 2015	00-24	1800	300	1500	351	1149		
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 being Specified.						
ER-SR##	1st March 2015 to 31st March 2015	00-06 18-24	2650	0	2650	2585	65		
		06-18'				2650	0		
SR-ER *	1st March 2015 to 31st March 2015	00-24	No limit is being Specified.						
ER-NER	1st March 2015 to 31st March 2015	00-17 23-24	650	40	610	210	400		
		17-23	720		680		470	160	Rvised due to commissioning of new transmission elements in NER.
NER-ER	1st March 2015 to 31st March 2015	00-17 23-24	990	30	960	0	960	460	Rvised due to commissioning of new transmission elements in NER.
		17-23	1050	40	1010		1010	490	
S1-S2	1st March 2015	00-10	2875	315	2560	2535	25		Revised due to shutdown of 400kV Pugalur-Kalivendapattu Ckt-2
		10-13'	2625		2310		0	-250	
		13-24	2875		2560		25		
	2nd 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	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st March 2015 to 31st March 2015	00-17 23-24	9400	200	9200	6862	2338		
		17-23	9900		9700		2838		

* 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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\$ 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) KWPCCL, n)Vandana Vidyut

1) 215 MW quantum of LTA is not being scheduled as per the CERC order dated 1st Oct 2014 for petition number 92/MP/2014
2) 211 MW quantum of MTOA is not being scheduled as per the communication sent by GM (commercial), Powergrid dated 30th Sep 2014.
3) considering (1), (2) & the expected implimentation of CERC order dated 16th Feb'15 in petition no.92/MP/2014, the margins would be released for short term transaction on day ahead basis till further intimation from CTU.

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 commissioned 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) contingency of Kahalgaon-Banka S/C
W3-ER	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
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) contingency 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) contingency 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

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	7300	800	6500	6811	0		
		17-23	7400		6600		0		
NER	1st March 2015 to 31st March 2015	00-17 23-24	650	40	610	210	400	160	Revised due to commissioning of new transmission elements in NER.
		17-23	720		680		470		
WR									
SR##	1st March 2015 to 31st March 2015	00-06 18-24	4750	750	4000	3935	65		
		06-18'	4750		4000	4000	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		
		06-18'			3800	1064	2736		
NER	1st March 2015 to 31st March 2015	00-17 23-24	990	30	960	0	960	460	Revised due to commissioning of new transmission elements in NER.
		17-23	1050	40	1010		1010	490	
WR									
SR *	1st March 2015 to 31st March 2015	00-24	No limit is being Specified.						

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1) 215 MW quantum of LTA is not being scheduled as per the CERC order dated 1st Oct 2014 for petition number 92/MP/2014
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3) considering (1), (2) & the expected implementation of CERC order dated 16th Feb'15 in petition no.92/MP/2014, the margins would be released for short term transaction on day ahead basis till further intimation from CTU.

Limiting Constraints

NR	Import	(n-1) contingency of Kahalgaon-Banka S/C High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high 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).
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli
NER	Import	(n-1) contingency of Kahalgaon-Banka S/C
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa
SR	Import	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.

*Primary constraints

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Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected
1	12/29/2014	Whole Month	Margin revised due to change in LTA/MTOA.	NR-WR/ ER-W3/ W3-ER
			Margin revised due to COD of Sasan Unit-5.	WR-NR
2	2/12/2015	Whole Month	Margin revised due to cancellation of LTA/MTOA	NR-WR/ ER-W3
3	2/23/2015	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
4	2/25/2015	Whole Month	Revised due to Commissioning of Vallur Unit-3.	S1-S2
			Revised considering full generation at Rihand/Singrauli complex.	WR-NR
5	2/28/2015	1/1/2015	Revised due to shutdown of 400kV Pugalur-Kalivendapattu Ckt-2	S1-S2
		Whole month	Rvised due to commissioning of new transmission elements in NER.	ER-NER/ NER-ER

ASSUMPTIONS IN BASECASE

Month : Mar '15

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	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

S.No.	Name of State/Area	Load		Generation	
		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	137917	109821	139344	113148