

National Load Despatch Centre
Total Transfer Capability for February 2015

Issue Date: 01/02/2015

Issue Time: 1245 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 February 2015 to 28th February 2015	00-24	2500	500	2000	1055	945				
WR-WR	1st February 2015	00-09	4700	500	4200	4768	0				
		09-24	4200		3700		0				
	2nd February 2015 to 28th February 2015	00-17	4700	500	4200	4768	0				
		23-24	4700		4200		0				
NR-ER*	1st February 2015 to 28th February 2015	00-06	2000	200	1800	293	1507				
		18-24			1800	358	1442				
		06-18	2000		1800	358	1442				
ER-NR	1st February 2015	00-17	3100	300	2800	2431	369				
		23-24					369				
		17-23					369				
	2nd February 2015 to 3rd February 2015	00-08	3100	300	2800	2431	369	-700	Revised due to shutdown of 400 kV Kahalgaon-Barh D/C		
		08-17	2400		2100		0				
		23-24	2800		2500		69			-300	
	4th February 2015 to 28th February 2015	00-17	3100	300	2800	2431	369				
23-24		369									
17-23	369										
W3-ER [§]	1st February 2015 to 28th February 2015	00-24	1800	300	1500	351	1149				
ER-W3	1st February 2015 to 28th February 2015	00-24	1000	300	700	973	0				
WR-SR##	1st February 2015 to 7th February 2015	00-05	2500	750	1750	1350	400				
		22-24			1750		1350			0	
	05-22	2100	1350	0							
	8th February 2015 to 28th February 2015	00-24	2100	750	1350	1350	0				
SR-WR *	1st February 2015 to 28th February 2015	00-24	No limit is being Specified.								
ER-SR##	1st February 2015 to 28th February 2015	00-06	2650	0	2650	2585	65				
		18-24				2650	0				
06-18	2650	0									
SR-ER *	1st February 2015 to 28th February 2015	00-24	No limit is being Specified.								
ER-NER	1st February 2015 to 28th February 2015	00-17	650	50	600	210	390				
		23-24	720		670		460				
NER-ER	1st February 2015 to 28th February 2015	00-17	650	30	620	0	620				
		23-24	710		670		670				
		17-23	710		670		670				
S1-S2	1st February 2015	00-1330	3200	315	2885	2520	365				
		1330-19	3520		3205	2630	575			320	Revised due to outage of Vallur U-2.
		19-24	3715		3400		770			515	Revised due to outage of Vallur U-2 and expected restoration of 400kV Kalivindhapattu -Pugalur - 2
	2nd February 2015	00-15	3715	315	3400	2630	770	280	Revised due to outage of Vallur U-2		
		15-24	3435		3120	2520	600				
	3rd February 2015 to 28th February 2015	00-24	3435	315	3120	2520	600				
Import of Punjab	1st February 2015 to 28th February 2015	00-24	5700	300	5400	3790	1610				

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Import TTC for DD & DNH	1st February 2015 to 28th February 2015	00-24	1200	0	1200	LTA and MTOA as per ex-pp schedule			
W3 zone Injection	1st February 2015 to 28th February 2015	00-17	9400	200	9200	6862	2338		
		23-24	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).

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) & likelihood of commencement of above transactions, the margins would be released for short term transactions on day ahead basis.

\$ 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) KWPCCL, 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 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	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) due to transit flows on ER-WR-NR corridor.
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 contingencies of 400KV Kahalgaon-Banka S/C and 400 kV Farraka-Malda 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 February 2015	00-09	7800	800	7000	7199	0		Revised due to shutdown of 400 kV Kahalgaon-Barh D/C.
		09-24'	7300		6500		0		
	2nd February 2015 to 3rd February 2015	00-08	7800	800	7000	7199	0		
		08-17 23-24	7100		6300		0	-700	
		17-23	7500		6700		0	-300	
	4th February 2015 to 28th February 2015	00-17 23-24	7800	800	7000	7199	0		
17-23		7800	7000		0				
NER	1st February 2015 to 28th February 2015	00-17 23-24	650	50	600	210	390		
		17-23	720		670		460		
WR									
SR ^{##}	1st February 2015 to 7th February 2015	00-05	5150	750	4400	3935	465		
		05-06'	4750		4000	4000	0		
		06-18'	4750		4000	4000	0		
		18-22'	4750		4000	3935	65		
		22-24'	5150		4400	3935	465		
	8th February 2015 to 28th February 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 February 2015 to 28th February 2015	00-06 18-24	4500	700	3800	1348	2452		
		06-18'	4500		3800	1413	2387		
NER	1st February 2015 to 28th February 2015	00-17 23-24	650	30	620	0	620		
		17-23	710	40	670		670		
WR									
SR *	1st February 2015 to 28th February 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).

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) & likelihood of commencement of above transactions, the margins would be released for short term transactions on day ahead basis.

Limiting Constraints

NR	Import	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) due to transit flows on ER-WR-NR corridor. 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 contingencies of 400KV Kahalgaon-Banka S/C and 400 kV Farraka-Malda S/C.
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs 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	29-12-2014	Whole Month	Margin revised due to change in LTA/MTOA.	NR-WR/ ER-W3/ W3-ER
			Revised considering change in LTA/MTOA and the New Transmission system commissioned.	W3 Zone Injection
			Margin revised due to COD of SASAN Unit-5.	WR-NR
2	22-01-2014	Whole Month	Revised due to LGBR Revision by constituents & KKNPP Unit-1, commissioning of Coastal Energen Unit-1.	S1-S2
3	30-01-2014	01-02-2015	Revised due to shutdown of 765kV Bus-I at Gwalior Substation.	WR-NR
		01-02-2015 to 07-02-2015	Revised considering the present demand pattern of Maharashtra during off -peak conditions.	WR-SR
		Whole Month	Revised due to network changes in NER Grid post commissioning of 400 kV Azara - Bongaigaon S/C	NER-ER
		01-02-2015	Revised due to 400kV Kalivindhapattu -Pugalur - 2 Shut Down.	S1-S2
4	01-02-2015	02-02-2015 to 03-02-2015	Revised due to shutdown of 400 kV Kahalgaon-Barh D/C	ER-NR
		01-02-2015 to 02-02-2015	Revised due to outage of Vallur U-2 and expected restoration of 400kV Kalivindhapattu -Pugalur - 2	S1-S2