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		
	1st March 2015 to 12th March 2015	00-24	4200	500	3700	4768	0		
		00-09'	4200		3700	4768	0		
	13th March 2015	09-16'	3200	500	2700	4768	0		
WR-NR		16-24	4200		3700	4768	0		
	14th March 2015 to 18st March 2015	00-24	4200	500	3700	4768	0		
	19th March 2015 to 31st March 2015	00-24	4900	500	4400	4768	0		
ND ED#	1st March 2015 to	00-06	2000	200	1800	293	1507		
NR-ER*	31st March 2015	18-24		200					
		06-18' 00-17	2000		1800	358	1442		
	1st March 2015 to 11th March 2015	23-24	3100	300	2800	2431	369		
		17-23	3200		2900		469		
ER-NR	12th March 2015 to 22nd March 2015	00-17 23-24	2600	300	2300	2431	0		
	22nd March 2015	17-23	2600		2300		0		
	22 1 14 1 2015	00-17							
	23 rd March 2015 to 31st March 2015	23-24	3100	300	2800	2431	369		
		17-23	3200		2900		469		
	1st March 2015 to 4th March 2015	00-24	1800	300	1500	351	1149		
W3-ER <sup>\$</sup>	5th March 2015 to 31st March 2015	00-24	1800	300	1500	583	917		
ER-W3	1st March 2015 to 31st March 2015	00-24	1000	300	700	874	0		
			l			T.			
	1st March 2015 to 23rd March 2015	00-24	2100	750	1350	1350	0		
WR-SR##	24th March 2015	00-08	2100	750	1350	1350	0		
	25th March 2015 to	08-24'	1600 2100	750	850 1350	1350 1350	0		
SR-WR*	31st March 2015 1st March 2015 to	00-24					s being Specified.		
	31st March 2015								
	1st March 2015 to	00-06				2505	65		
	10th March 2015	18-24	2650	0	2650	2585	65		
		06-18'				2650	0		
		00-06	2650		2650	2585	65		
	11th March 2015	06-09' 09-'18	2650 2350	0	2650 2350	2650 2650	0		
		18-24	2350		2350	2585	0		
ED OF ""	12th March 2015 to	00-06	2550		2550				
ER-SR##	18th March 2015	18-24 06-18'	2650	0	2650	2585 2650	65 0		
	19th March 2015	00-06 18-24	2650	0	2650	2585	65		
		06-08' 08-18'	2350		2350	2650	0		
	20th March 2015 to	00-06				2505			
	31st March 2015	18-24 06-18'	2650	0	2650	2585 2650	65		
SR-ER*	1st March 2015 to 31st March 2015	00-24					s being Specified.		

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
	1st March 2015 to	00-17 23-24	650		610		400		
ER-NER	31st March 2015	17-23	720	40	680	210	470		
	1st March 2015 to	00-17	990	30	960		960		
NER-ER	31st March 2015	23-24 17-23	1050	40	1010	0	1010		
		00-10	2875		2560		25		
	1st March 2015	10-13'	2625	315	2310	2535	0		
	1st Maich 2013	13-22	2875	313	2560	2333	25		
		22-24	3190		2875		340		
	2nd March 2015 to 3rd March 2015	00-24	3190	315	2875	2535	340		
	4th March 2015	00-1530	3190	315	2875	2535	340		
	4th March 2013	1530-24	3485	315	3170	2644	526		
		00-08	3485		3170		526		
	5th March 2015	08-18'	3335	315	3020	2644	376		
		18-24	3485		3170		526		
	6th March 2015	00-24	3485	315	3170	2644	526		
		00-09	3485		3170	2644	526		
	7th March 2015	09-'19	3340	315	3340	2644	696		
		19-24	3485		3170	2644	526		
	8th March 2015 to 9th March 2015	00-24	3485	315	3170	2644	526		
	10th March 2015	00-12 12-24'	3485 3485	315	3170 3170	2644	526 526		
	11th March 2015 to 12th March 2015	00-24	3485	315	3170	2644	526	_	
		00-11	3485		3170	2644	526		
	13th March 2015	11-'24	3770	315	3455	2752	703		
		00-08	3485		3170		526		
	14th March 2015	08-24'	3415	315	3100	2644	456		
S1-S2		00-10	3415		3100		456		
	15th March 2015	1000- 1730	3110	315	2795	2644	151		
		1730- '2400	3415		3100		456		
	16th March 2015	0000- 1130	3110	315	2795	2644	151		
		1130- 2400	3415		3100		456		
	17th March 2015	00-24	3250	315	2935	2644	291		
	18th March 2015	00-24	3250	315	2935	2644	291		
	19th March 2015	00-24	3310	315	2995	2600	395		
	20th March 2015	00-12	3000	315	2685	2600	85		
		12-24'	3165		2850	2644	206		
	21st March 2015 22nd March 2015	00-24	3165	315	2850	2644	206		
	to 24th March 2015	00-24	3165	315	2850	2644	206		
		00-08'	3165		2850	2644	206		
	25th March 2015	08-17'	2520	315	2205	2644	0		
		17-24	3165		2850	2644	206		
	26th March 2015	00-24	3165	315	2850	2644	206		
	27th March 2015	00-24	3000	315	2685	2600	85		
	28th March 2015	00-07'	3000	315	2685	2600	85		
	29th March 2015 to 30th March	07'-24	3165	315	2850 2850	2644 2644	206	165	Revised due to extension of Vallur Unit-3 Outage
	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
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		
W3 zone	1st March 2015 to 4th March 2015	00-17 23-24	9400	200	9200	6862	2338		
Injection ##	4tii Maicii 2013	17-23	9900		9700		2838		
Injection ##	5th March 2015 to	00-17	9400	200	9200	7094	2106		
	31st March 2015	17-23	9900	200	9700	7094	2606		

<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
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli
ER-NR	(n-1) contingnecy of Kahalgaon-Banka S/C
W3-ER	i. (n-1) Contingency of 400 kV MPL-Maithon S/C
ER-W3	(c.1) and in our of 400 NV Drived, Harmonda Davidale
	(n-1) contingency of 400kV Raigarh-Jharsuguda-Rourkela
WR-SR & ER-SR	(n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG)     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
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,
S1-S2	(n-1) contingency of one circuit of 400 kV Kolar-Hosur
Import of DE & 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)

<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									
		00-17							
	1st March 2015 to	23-24	7300	800	6500	7199	0		
	11th March 2015	17-23	7400		6600		0		
	121 14 1 2015	00-17	6800	000	6000	7100	0		
	12th March 2015	23-24 17-23	6800	800	6000	7199	0		
		00-09	6800		6000		0		
	13th March 2015	09-16'	5800	800	5000		0		
		16-24	6800		6000		0		
NR		00-17	6800		6000	7199	0		
	14th March 2015 to	23-24	0000	800	0000	_			
	18th March 2015	17-23	6800		6000		0		
	19th March 2015 to	00-17	7500		(700		0		
	22 nd March 2015	23-24	7500	800	6700	7199	0		
	22 na march 2013	17-23	7500		6700		0		
	23rd March 2015 to 31st March 2015	00-17 23-24	8000	800	7200	7199	1		
		17-23	8100		7300	/199	101		
	4 . 3 5 . 1 . 201 5 .	00-17							
NER	1st March 2015 to 31st March 2015	23-24	650	40	610	210	400		
	31st Water 2013	17-23	720		680		470		
WR									
	1 . 34 1 2015 .	00-06	4750		4000	2025	<i></i>		
	1st March 2015 to 10th March 2015	18-24	4750	750	4000	3935	65		
	Total Water 2019	06-18'	4750		4000	4000	0		
		00-06	4750		4000	3935	65		
	11th March 2015	06-09' 09-18'	4750 4450	750	4000 3700	4000 4000	0		
		18-24	4450		3700	3935	0		
	101.15	00-06							
	12th March 2015 to 18th March 2015	18-24	4750	750	4000	3935	65		
	Total Water 2019	06-18'	4750		4000	4000	0		
		00-06	4750		4000	3935	65		
SR##	19th March 2015	18-24		750	4000				
		06-08' 08-18'	4750 4450		4000 3700	4000 4000	0		
		00-06							
	20th March 2015 to	18-24	4750	750	4000	3935	65		
	23rd March 2015	06-18'	4750		4000	4000	0		
		00-06	4750		4000	3935	65		
	24th March 2015	06-08'	4750	750	4000	4000	0		
		08-18' 18-24'	4250 4250		3500 3500	4000 3935	0		
		00-06							
	25th March 2015 to 31st March 2015	18-24	4750	750	4000	3935	65		
	515t Water 2013	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		
	518t Water 2015	06-18'			3800	1064	2736		
NER	1st March 2015 to 31st March 2015	00-17 23-24	990	30	960	0	960		
	518t Wiaicii 2015	17-23	1050	40	1010		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**

<u> </u>	,	
		(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 loop
NR		flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda (power flowing from WR to NR on 765kV Gwalior-Agra
111		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	T4	2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage-
SR	Import	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

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected		
		Whole	Margin revised due to change in LTA/MTOA.	NR-WR/ ER-		
1	29-12-2014	Month	-	W3/ W3-ER		
		NA/Is a La	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.	S1-S2		
4	25-02-2015	Month	Revised considering full generation at Rihand/Singrauli complex.	WR-NR		
-	20.02.2045	01-03-2015	Revised due to shutdown of 400kV Pugalur-Kalivendapattu Ckt-2	S1-S2		
5	28-02-2015	Whole month	Rveised due to commissioning of new transmission	ER-NER/ NER-		
		whole month	elements in NER.	ER		
6	01-03-2015	1/3/2015 - 10/3/2015	Revised due to NCTPS Unit-1 Outage.	S1-S2		
		5/3/2015 -	STOA Margin revised due to grant of MTOA from	W3 Zone/		
7	03-03-2015	03-03-2015	7 03-03-2015	31/3/2015	Chattisgarh to KSEB by CTU.	W3-ER
,	03-03-2013	05-03-2015	Revised due to 220kV Kadakola - Kaniyampeta Shutdown.	S1-S2		
8	04-03-2015	04/03/2015 - 07/03/2015	Revised due to outage of Vallur Unit - 2	S1-S2		
0	06.03.2045	07.02.2045	Revised due to shutdown of 400kV Cudappah - Chitoor-	S1-S2		
9	06-03-2015	07-03-2015	Sriperumbudur S/C.			
10	07-03-2015	08-03-2015 - 10-03-2015	Revised due to extension of outage of Vallur Unit-2	S1-S2		
		10-03-2015 -	Revised due to extension of Vallur Unit-2 outage and			
11	09-03-2015	12-03-2015	synchornisation of NCTPS Stage-2 Unit -1	S1-S2		
12	10-03-2015	11-03-2015	Revised due to shutdown of 400 kV Indravati - Jeypore S/C	ER-SR		
			Revised due to extension of outage of Vallur unit 2 and	S1-S2		
13	10-03-2015	11-03-2015	NCTPS stage 2 unit 1.	31 32		
		12-03-2015	Revised due to the shutdown of 400 kV Biharshariff-	ER-NR		
14	11-03-2015	22-03-2015	Lakhisarai D/C	ER IVI		
			Revised due to shutdown of HVDC Mundra - Mahendragarh	WR-NR		
		13-03-2015	pole 1			
		13-03-2015-	Revised due to extension of Vallur Unit-2 and outage of			
15	12-03-2015	16-03-2015	NCTPS Stage-2 Unit -1			
		17-03-2015	Revised due to extension of NCTPS Stage-2 Unit -1 outage & Less generation at Vallur	S1-S2		
		18-03-2015 -	Revised due to revival of NCTPS Stage-2 Unit -1 & less			
		31-03-2015	generation Vallur			
		13-03-2015	Revised due to outage of Vallur unit 3			
16	13-03-2015	14-03-2015 -		S1-S2		
		18-03-2015	Revised due to shutdown of 400kV Kurnool-Tiruvalam D/C.			

Revision No	Date of Revision	Period of Revision	Reason for Revision	Corridor Affected	
17	15-03-2015	15-03-2015 - 17-03-2015	Revised due to synchronisation of NCTPS Unit-1	S1-S2	
18	15-03-2015	15-03-2015	Revised due to outage of NCTPS-II Unit-1	S1-S2	
19	16-03-2015	16-03-2015	Revised due to outage of NCTPS-II Unit-1	S1-S2	
20	16-03-2015	17-03-2015	Revised due to extension of outage of Vallur unit-3	S1-S2	
21	16-03-2015	17-03-2015 - 18-03-2015	Revised due to extension of Outage of NCTPS Unit-1 & Outage of Mettur-III Unit-1.	S1-S2	
22	17-03-2015	18-03-2015 19-03-2015	Revised due to extension of outage of Vallur unit 3 Revised due to extensions of the outages of Vallur unit 3 & Mettur-III unit 1	S1-S2	
23	18-03-2015	19-03-2015	Revised due to shutdown of 400 kV Jeypore - Indravati S/C	ER-SR	
		Revised due to Mettur-III Unit-1 revival & NCTPS Unit-1 outage extension			
24	18-03-2015	Whole month	Revised due to outage of Rihand unit 4	WR-NR	
25	20-03-2015	20-03-2015- 21-03-2015	Revised due to outage of Vallur Unit-3	S1-S2	
26	21-03-2015	22-03-2015 - 24-03-2015	Revised due to extension of outage of Vallur unit 3	S1-S2	
27	23-03-2015	24-03-015	Revised due to shutdown of HVDC Bhadrawti Pole-1	WR-SR	
28	24-03-2015	25-03-2015	Revised due to extension of outage of Vallur unit 3 and revised due to shutdown of 400 kV Somanhalli - Hosur	S1-S2	
29	25-03-2015	25-03-2015 - 26-03-2015	Revised due to extension of Vallur Unit-3 outage.	S1-S2	
30	28-03-2015	28-03-2015 - 30-03-2015	Revised due to extension of outage of Vallur unit 3	S1-S2	

# **ASSUMPTIONS IN BASECASE**

Month: Mar '15

		L	oad	Gen	eration
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

			•	Osmanstian		
		L	oad	Gene	eration	
S.No.	Name of State/Area	Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)	
IV	SOUTHERN REGION					
1	Andhra Pradesh	5945	5241	5011	4762	
2	Telangana	6351	5662	2707	2367	
3	Tamil Nadu	12188	10362	6958	5865	
4	Karnataka	8873	7418	7473	4852	
5	Kerala	2699	2630	1249	1276	
6	Pondy	330	319	0	0	
7	Goa	89	88	0	0	
8	ISGS/IPPs	0	0	9103	8630	
	Total SR	36475	31720	32501	27752	
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	139813	112407	139620	114451	
	Total All Illula	139813	112407	139620	114451	