

National Load Despatch Centre
Total Transfer Capability for February 2019

Issue Date: 1st February 2019

Issue Time: 1130 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 February 2019 to 28th February 2019	00-06	2500	500	2000	195	1805		
		06-18				250	1750		
		18-24				195	1805		
WR-NR*	1st February 2019 to 28th February 2019	00-24	13250	500	12750	9383	3367		
			12300**		11800**	8433**	3367**		
NR-ER*	1st February 2019 to 28th February 2019	00-06	2000	200	1800	193	1607		
		06-18	2000		1800	303	1497		
		18-24	2000		1800	193	1607		
ER-NR*	1st February 2019 to 28th February 2019	00-24	5250	300	4950	3892	1058		
W3-ER	1st February 2019 to 28th February 2019	00-24	No limit is being specified.						
ER-W3	1st February 2019 to 28th February 2019	00-24	No limit is being specified.						
WR-SR	1st February 2019 to 28th February 2019	00-05	5550	500	5050	4435	615		
		05-22	5550		5050		615		
		22-24	5550		5050		615		
SR-WR *	1st February 2019 to 28th February 2019	00-24	No limit is being Specified.						
ER-SR	1st February 2019	00-06	3950	250	3700	2762	938		
		06-18				2847	853		
		18-24				2762	938		
	02nd February 2019	00-05	2950	250	2700	2762	938		
		05-06				2762	0		
		06-18				2847	0		
	18-24	06-18	2950	250	2700	2762	0		
		00-06				2762	0		
		06-18				2847	0		
	3rd February 2019 to 04th February 2019	00-06	2950	250	2700	2762	0		
		06-18				2847	0		
		18-24				2762	0		
	05th February 2019 to 06th February 2019	00-06	3950	250	3700	2762	938		
		06-18				2847	853		
		18-24				2762	938		
07th February 2019 to 28th February 2019	00-06	4950	250	4700	2762	1938			
	06-18				2847	1853			
	18-24				2762	1938			
SR-ER *	1st February 2019 to 28th February 2019	00-24	No limit is being Specified.						

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ER-NER	1st February 2019	00-17	1280	45	1235	225	1010			
		17-23	1450		1405		1180			
		23-24	1280		1235		1010			
	2nd February 2019	00-08	1280	45	1235	225	1010		Revised TTC due to day time Shutdown of 400 kV Bongaigaon - Azara line for testing, commissioning and jumper connection of new reactor at Bongaigaon Substation.	
		08-17	1070		1025		800	-210		
		17-23	1160		1115		890	-290		
		23-24	1070		1025		800	-210		
	3rd February 2019 to 28th February 2019	00-17	1280	45	1235	225	1010			
		17-23	1450		1405		1180			
		23-24	1280		1235		1010			
	NER-ER	1st February 2019	00-17	1900	45	1855	0	1855		
			17-23	1830		1785		1785		
23-24			1900	1855		1855				
2nd February 2019		00-08	1900	45	1855	0	1855		Revised TTC due to day time Shutdown of 400 kV Bongaigaon - Azara line for testing, commissioning and jumper connection of new reactor at Bongaigaon Substation.	
		08-17	1490		1445		1445	-410		
		17-23	1460		1415		1415	-370		
		23-24	1490		1445		1445	-410		
3rd February 2019 to 28th February 2019		00-17	1900	45	1855	0	1855			
		17-23	1830		1785		1785			
		23-24	1900		1855		1855			
W3 zone Injection		1st February 2019 to 28th February 2019	00-24	No limit is being specified (In case of any constraints appearing in the system, W3 zone export would be revised accordingly)						

Note: TTC/ATC of S1-(S2&S3) corridor, Import of S3(Kerala), Import of Punjab and Import of DD & DNH is uploaded on NLDC website under Intra-Regional Section in Monthly ATC.

* 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).

**Considering 400 kV Rihand stage-III - Vindhyaachal PS D/C line as inter-regional line for the purpose of scheduling, metering and accounting and 950 MW ex-bus generation in Rihand stage-III. Rihand Stage-III generation is considered as NR regional entity.

1) S1 comprises of Telangana, AP and Karnataka; S2 comprises of Tamil Nadu and Puducherry; S3 comprises Kerala

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) KWPC, n)Vandana Vidut o)RKM, p)GMR Raikheda, q)Ind Barath

and any other regional entity generator in Chhattisgarh

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.

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 2019 to 28th February 2019	00-06	17650 16700**	800	16850 15900**	13275 12325**	3575 3575**			
		06-17	18900 17950**		18100 17150**		4825 4825**			
		17-24	17000 16050**		16200 15250**		2925 2925**			
NER	1st February 2019	00-17	1280	45	1235	225	1010		Revised TTC due to day time Shutdown of 400 kV Bongaigaon - Azara line for testing, commissioning and jumper connection of new reactor at Bongaigaon Substation.	
		17-23	1450		1405		1180			
		23-24	1280		1235		1010			
	2nd February 2019	00-08	1280	45	1235	225	1010			
		08-17	1070		1025		800	-210		
		17-23	1160		1115		890	-290		
		23-24	1070		1025		800	-210		
	3rd February 2019 to 28th February 2019	00-17	1280	45	1235	225	1010			
		17-23	1450		1405		1180			
		23-24	1280		1235		1010			
	WR									
	SR	1st February 2019	00-06	9500	750	8750	7197	1553		
06-18			9500	8750		7282	1468			
18-24			9500	8750		7197	1553			
02nd February 2019		00-05	9500	750	8750	7197	1553			
		05-06	8500		7750	7197	553			
		06-18	8500		7750	7282	468			
		18-24	8500		7750	7197	553			
03rd February 2019 to 04th February 2019		00-06	8500	750	7750	7197	553			
		06-18	8500		7750	7282	468			
		18-24	8500		7750	7197	553			
05th February 2019 to 06th February 2019		00-06	9500	750	8750	7197	1553			
		06-18	9500		8750	7282	1468			
		18-24	9500		8750	7197	1553			

SR	07th February 2019 to 28th February 2019	00-06	10500	750	9750	7197	2553		
		06-18	10500		9750	7282	2468		
		18-24	10500		9750	7197	2553		

* 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).

**Considering 400 kV Rihand stage-III - Vindhyachal PS D/C line as inter-regional line for the purpose of scheduling, metering and accounting and 950 MW ex-bus generation in Rihand stage-III. Rihand Stage-III generation is considered as NR regional entity.

* For approving STOA Bilateral transactions, margin available in Simultaneous Import of NR would be apportioned on WR-NR Corridor & ER-NR Corridor in the following ratio:

Margin in Simultaneous import of NR = A

WR-NR ATC =B

ER-NR ATC = C

Margin for WR-NR applicants = $A * B/(B+C)$

Margin for ER-NR Applicants = $A * C/(B+C)$

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 2019 to 28th February 2019	00-06	4500	700	3800	388	3412			
		06-18			3800	553	3247			
		18-24			3800	388	3412			
NER	1st February 2019	00-17	1900	45	1855	0	1855			
		17-23	1830		1785		1785			
		23-24	1900		1855		1855			
	2nd February 2019	00-08	1900	45	1855	0	1855		Revised TTC due to day time Shutdown of 400 kV Bongaigaon - Azara line for testing, commissioning and jumper connection of new reactor at Bongaigaon Substation.	
		08-17	1490		1445		1445	-410		
		17-23	1460		1415		1415	-370		
		23-24	1490		1445		1445	-410		
	3rd February 2019 to 28th February 2019	00-17	1900	45	1855	0	1855			
		17-23	1830		1785		1785			
		23-24	1900		1855		1855			
	WR									
SR *	1st February 2019 to 28th February 2019	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 (Corridor wise)

Corridor	Constraint	Applicable Revisions
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Bhanpura-Modak	Rev-0 to 5
WR-NR	(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 2
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Agra (PG) will lead to overloading of the second ICT	Rev-3 to 5
	Frequent tripping of HVDC Champa - Kurukshetra poles	Rev-0 to 1
	RVO operation of HVDC Champa Kurukshetra Poles	Rev-2
	Reversal of BNC-Agra pole towards BNC & blocking of APD-Agra pole due to lean hydro period in NER	Rev - 2
NR-ER	(n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 5
ER-NR	1. N-1 contingencies of 400 kv Mejia-Maithon A S/c 2. N-1 contingencies of 400 kv Kahalgaon-Banka S/c 3. N-1 contingencies of 400kV MPL- Maithon S/C	Rev-0 to 5
WR-SR and ER-SR	n-1 contingency of 2x315 MVA, 400/220 kV ICTs at Mardam will lead to overloading of the second ICT	Rev-0 to 5
	n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 5
	Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 5
ER-NER	a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa	Rev-0 to 4
	b. High loading of 220 kV Balipara-Sonabil line(200 MW)	Rev-0 to 5
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 5
W3 zone Injection	---	Rev-0 to 5

Limiting Constraints (Simultaneous)

		Applicable Revisions	
NR	Import	1. N-1 contingencies of 400 kv Mejia-Maithon A S/c 2. N-1 contingencies of 400 kv Kahalgaon-Banka S/c 3. N-1 contingencies of 400kV MPL- Maithon S/C	Rev-0 to 5
		(n-1) Contingency of 765kV Aligarh-Jhatikara leads to 2500 MW loading on 765kV Aligarh-Greater Noida.	Rev-0 to 2
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Agra (PG) will lead to overloading of the second ICT	Rev - 3 to 5
		Frequent tripping of HVDC Champa - Kurukshetra poles	Rev-0 to 1
		RVO operation of HVDC Champa Kurukshetra Poles	Rev-2
		Reversal of BNC-Agra pole towards BNC & blocking of APD-Agra pole due to lean hydro period in NER	Rev-2
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Bhanpura-Modak. (n-1) contingency of 400 kV Saranath-Pusauli	Rev-0 to 5
NER	Import	a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Balipara-Sonabil line (200 MW)	Rev-0 to 4 Rev-0 to 5
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other ICT at Misa	Rev-0 to 5
SR	Import	n-1 contingency of 2x315 MVA, 400/220 kV ICTs at Mardam will lead to overloading of the second ICT	Rev-0 to 5
		n-1 contingency of 2x1500 MVA, 765/400 kV ICTs at Vemagiri (PG) will lead to overloading of the second ICT	Rev-1 to 5
		Low Voltage at Gazuwaka (East) Bus.	Rev-0 to 5

**National Load Despatch Centre
Total Transfer Capability for February 2019**

Revision No	Date of Revision	Period of Revision	Reason for Revision/Comment	Corridor Affected
1	26th Nov 2018	Whole Month	Revised considering (a) recent commissioning of 765 kV Jharsuguda - Dharamjaygarh 3&4, 765 kV Gadarwara - Warora PS D/C, 765 kV Warora PS - Parli D/C, LILO of Kurnool - Thirvualam D/C at Cuddapah, 400 kV Cuddapah-Hindupur D/C, Salem PS - Madhugiri PS S/C, 765 kV Dharamjaigarh - Champa S/C, 765 kV Champa-Raigarh S/C and 765 kV Sipat-Bilaspur ckt-3 and some other 400 kV lines	WR-SR/ER-SR/Import of SR
			Revised STOA margin due to operationalization of additional 20 MW LTA from OKWPL to UP discom	WR-NR/Import of NR
2	4th Jan 2019	Whole Month	Revised STOA margins due to: (i) Additional 20 MW LTA to Delhi from Ostro Kutch Wind Power Ltd (OKWPL) (ii) Operationalization of 108 MW MTOA from SKS Power Gen Ltd to Noida Power Company	WR-NR/Import of NR
			Revised TTC due to: (i) Change in load generation balance (ii) Commissioning of circuit 3 & 4 of 765 kV Angul Jharsuguda (iii) Prevailing pattern of load in downstream of 400/220 kV Maradam ICTs	ER-SR/WR-SR/Import of SR
3	28th Jan 2019	Whole Month	Revised TTC due to normalization of Champa Kurukshetra bipole	WR-NR/Import of NR
			Change in pattern of inter-regional flow towards NR	Import of NR
			Revised STOA margin due to termination of 100 MW MTOA from LANCO Anpara power limited to TANGEDCO	WR-SR/Import of SR
4	29th Jan 2019	Whole Month	Revised TTC Due to recent changes in network of NER (Upgradation of 132 kV Silchar - Imphal D/C to 400 kV Level, commissioning of 132 kV Silchar- Melriat D/C ,2*315 MVA, 400/132 kV ICTs at Imphal(PG)) and changes in load -generation balance in NER	ER-NER/NER-ER/Import /Export of NER
		01st Feb 2019 to 06th Feb 19	Revised due to Talcher - kolar single/Bi-pole Shutdown on various dates.	ER-SR/Import of SR
5	1st Feb 2019	2nd Feb 2019	Revised TTC due to day time Shutdown of 400 kV Bongaigaon - Azara line for testing, commissioning and jumper connection of new reactor at Bongaigaon Substation.	ER-NER/NER-ER/Import /Export of NER

ASSUMPTIONS IN BASECASE					
					Month : February'19
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	7631	5772	3251	3146
2	Haryana	7632	5724	2416	2391
3	Rajasthan	10162	9776	5870	5810
4	Delhi	4284	2411	541	535
5	Uttar Pradesh	13764	12749	6360	6225
6	Uttarakhand	1805	1059	722	371
7	Himachal Pradesh	1447	430	204	27
8	Jammu & Kashmir	2034	1268	292	235
9	Chandigarh	241	122	0	0
10	ISGS/IPPs	30	30	18516	9378
	Total NR	49030	39342	38172	28120
II	EASTERN REGION				
1	Bihar	3735	2405	351	207
2	Jharkhand	970	758	360	223
3	Damodar Valley Corporation	2950	2695	5233	4381
4	Orissa	3969	3029	2364	1707
5	West Bengal	6784	4742	5378	4065
6	Sikkim	104	102	0	0
7	Bhutan	207	199	643	643
8	ISGS/IPPs	1120	1112	12272	9164
	Total ER	19839	15041	26600	20390
III	WESTERN REGION				
1	Maharashtra	17960	12988	12516	9289
2	Gujarat	13475	11417	8764	7972
3	Madhya Pradesh	10868	6191	5106	4336
4	Chattisgarh	3606	2644	2248	1867
5	Daman and Diu	324	287	0	0
6	Dadra and Nagar Haveli	793	707	0	0
7	Goa-WR	522	327	0	0
8	ISGS/IPPs	4337	3466	37969	26997
	Total WR	51885	38026	66603	50461

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
IV	SOUTHERN REGION				
1	Andhra Pradesh	8132	7088	6103	4712
2	Telangana	9743	8088	4823	4423
3	Karnataka	10431	7051	7633	5219
4	Tamil Nadu	14513	10993	6958	5513
5	Kerala	3871	2460	1678	402
6	Pondy	329	347	0	0
7	Goa-SR	74	78	0	0
8	ISGS/IPPs	0	0	14302	12230
	Total SR	47093	36106	41497	32500
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	133	76	0	0
2	Assam	1233	1073	185	142
3	Manipur	162	100	0	0
4	Meghalaya	301	215	197	96
5	Mizoram	90	67	8	8
6	Nagaland	115	74	12	12
7	Tripura	198	193	72	74
8	ISGS/IPPs	116	116	1902	1449
	Total NER	2348	1913	2376	1781
	Total All India	170195	130428	175247	133253