# National Load Despatch Centre Total Transfer Capability for Jul 2024

Issue Date:Jun 28 2024 Issue Time:17:29:08 **Revision No:6** Margin Changes **Available Total** Reliability **Time Approved** for Tw.r.t. **Corridor Date Transfer Transfer** Comment Period(hrs) Capability(TTC) Margin(RM) Capability(ATC) **GNA(MW) GNA Previous** (MW) **Revision** 00:00 to 0 1850 60 1790 NA 17:00 01 Jul to 17:00 to 0 **ER-NER** 1570 60 1510 NA 21:00 31 Jul 21:00 to 60 1790 0 1850 NA 24:00 01 Jul to 00:00 to **ER-NR** 400 0 6700 6300 NA 24:00 31 Jul 00:00 to 6200 350 5850 0 NA 06:00 01 06:00 to Jul to **ER-SR** 0 6200 350 5850 NA 18:00 31 Jul 18:00 to 6200 350 5850 NA 0 24:00 01 00:00 to Jul to ER-W3 No limit is being specified. 24:00 31 Jul 01 00:00 to Jul to **ER-WR** 0 NA NA NA 31 24:00 Jul 00:00 to 2900 0 60 2840 NA 17:00 01 17:00 to Jul to **NER-ER** 2900 60 2840 NA 0 31 21:00 Jul 21:00 to 2900 60 2840 0 NA 24:00 00:00 to 0 4000 300 3700 NA 06:00 01 Jul to 06:00 to NR-ER 4000 0 300 3700 NA 31 18:00 Jul 18:00 to 4000 300 3700 NA 0 24:00 00:00 to TTC/ATC revised due to change in LGB 6700 500 6200 700 NA 06:00 01 06:00 to Jul to NR-WR 6700 500 6200 700 NA 18:00 31 Jul 18:00 to 6700 500 6200 700 NA 24:00 01 00:00 to Jul to SR-ER No limit is being specified. 24:00 31 Jul 00:00 to 0 6000 650 5350 NA 06:00 01 Jul to 06:00 to SR-WR 7650 650 7000 0 NA 18:00 31 Jul 18:00 to 0 6000 650 5350 NA 24:00 01 W3 Jul to 00:00 to NA NA NA 0 Injection 24:00 31 Jul 00:00 to W3-ER 01 No limit is being specified. 24:00 Jul to

Corridor	Date	Time Period(hrs)	Total Transfer Capability(TTC)	Reliability Margin(RM)	Available Transfer Capability(ATC)	Approved GNA(MW)	Margin for T- GNA (MW)	Changes w.r.t. Previous Revision	Comment
	31 Jul								
	01	00:00 to 06:00	5500	300	5200	NA		0	
WR-ER	Jul to 31	06:00 to 18:00	5500	300	5200	NA		0	
	Jul	18:00 to 24:00	5500	300	5200	NA		0	
WR-NR	01 Jul to 31	00:00 to 06:00	22350	1000	21350	NA		3150	TTC/ATC revised due to 1. Assurance received from POWERGRID vide communication dated 21st June 2024 stating that HVDC Champa-Kurukshetra link is in healthy condition and can be reliably operated up to its rated capacity of 6000 MW. 2. Change in load generation balance and inter-regional flow pattern since previous revision. 3. Full availability of HVDC Mundra - Mahendragarh Bipole to its rated capacity
	Jul	06:00 to 09:00	22350	1000	21350	NA		3150	
		09:00 to 16:00	18050	1000	17050	NA		-1150	
		16:00 to 18:00	22350	1000	21350	NA		3150	
		18:00 to 24:00	22350	1000	21350	NA		3150	
	01	00:00 to 06:00	16100	650	15450	NA		0	
WR-SR	Jul to	06:00 to 18:00	16100	650	15450	NA		0	
	Jul	18:00 to 24:00	16100	650	15450	NA		0	

- Based on the actual distribution of corridor flows, Counter flow benefit on account of transactions in the reverse direction would be considered for short-term transactions wherever applicable.
- 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.
- S1 comprises of Telangana, AP and Karnataka; S2 comprises of Tamil Nadu and Puducherry; S3 comprises Kerala
- 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) NTPC Korba I, II & III, j) NTPC Sipat I & II, k) KSK Mahanadi, L)DB Power, m) REGL (Previously KWPCL), m)RKM, o)REL, p) Bharat Aluminium, q)MCCPL, r)SKS, s) TRN, t)NTPC Lara, u) Adani Power Limited Raipur and any other regional entity generator in Chhattisgarh
- The figure is based on GNA approved by CTU. In actual Operation, due to Units being on Maintenance/ Fuel shortage/New units being commissionned, the dispatches of units 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.
- Real Time TTC/ATC revisions are uploaded on Grid-India/NLDC "News Update" (Flasher) Section.
- POWERGRID vide communication dated 21st June 2024 has given assurance that HVDC Champa-Kurukshetra link is in healthy condition and and be reliably operated up to its rated capacity of 6000 MW based on system requirement. Based on this, TTC/ATC of WR-NR/NR Importcorridor has been declared considering both bipoles of HVDC Champa-Kurukshetra.

#### **Simultaneous Import Capability**

Corridor	Date	Time Period(hrs)	Total Transfer Capability(TTC)	Reliability Margin(RM)	Available Transfer Capability(ATC)	Approved GNA(MW)	Margin for T- GNA (MW)	Changes w.r.t. Previous Revision	Comment
ER	01 Jul to 31 Jul	00:00 to 24:00	NA	NA		3112	NA	0	

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Corridor	Date	Time Period(hrs)	Total Transfer Capability(TTC)	Reliability Margin(RM)	Available Transfer Capability(ATC)	Approved GNA(MW)	Margin for T- GNA (MW)	Changes w.r.t. Previous Revision	Comment
	01	00:00 to 17:00	1350	60	1290	824	466	0	
NER	Jul to 31	17:00 to 21:00	1070	60	1010	824	186	0	
	Jul	21:00 to 24:00	1350	60	1290	824	466	0	
NR	01 Jul to 31 Jul	00:00 to 06:00	25700	1400	24300	17344	6956	-200	TTC/ATC revised due to 1. Assurance received from POWERGRID vide communication dated 21st June 2024 stating that HVDC Champa-Kurukshetra link is in healthy condition and can be reliably operated up to its rated capacity of 6000 MW. 2. Change in load generation balance and inter-regional flow pattern since previous revision. 3. Full availability of HVDC Mundra - Mahendragarh Bipole to its rated capacity
	Jui	06:00 to 09:00	25700	1400	24300	17344	6956	-200	
		09:00 to 16:00	19250	1400	17850	17344	506	-6650	
		16:00 to 18:00	25700	1400	24300	17344	6956	-200	
		18:00 to 24:00	25700	1400	24300	17344	6956	-200	
	01	00:00 to 06:00	22300	1000	21300	7601	13699	0	
SR	Jul to 31	06:00 to 18:00	22300	1000	21300	7601	13699	0	
	Jul	18:00 to 24:00	22300	1000	21300	7601	13699	0	
WR	01 Jul to 31 Jul	00:00 to 24:00	NA	NA		7813	NA	0	

- Based on the actual distribution of corridor flows, Counter flow benefit on account of transactions in the reverse direction would be considered for short-term transactions wherever applicable.
- 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.
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- The figure is based on GNA approved by CTU. In actual Operation, due to Units being on Maintenance/ Fuel shortage/New units being commissionned, the dispatches of units 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.
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#### **Simultaneous Export Capability**

Corridor	Date	Time Period(hrs)	Total Transfer Capability(TTC)	Reliability Margin(RM)	Available Transfer Capability(ATC)	Approved GNA(MW)	Margin for T-GNA (MW)	Changes w.r.t. Previous Revision	Comment
ER	01 Jul to 31 Jul	00:00 to 24:00	NA	NA		NA		0	
	04 1.11.	00:00 to 17:00	3400	60	3340	NA		0	
NER	R 01 Jul to 31 Jul	17:00 to 21:00	3400	60	3340	NA		0	
		21:00 to 24:00	3400	60	3340	NA		0	

Corridor	Date	Time Period(hrs)	Total Transfer Capability(TTC)	Reliability Margin(RM)	Available Transfer Capability(ATC)	Approved GNA(MW)	Margin for T-GNA (MW)	Changes w.r.t. Previous Revision	Comment
	04 1 1 .	00:00 to 09:00	6700	500	6200	NA		700	change in
NR	01 Jul to 31 Jul	09:00 to 18:00	7800	500	7300	NA		1800	LGB
	31 Jui	18:00 to 24:00	6700	500	6200	NA		700	
		00:00 to 06:00	5150	650	4500	NA		0	
SR	01 Jul to 31 Jul	06:00 to 18:00	6600	650	5950	NA		0	
	31 Jul	18:00 to 24:00	5150	650	4500	NA		0	
WR	01 Jul to 31 Jul	00:00 to 24:00	NA	NA		NA		0	

- Based on the actual distribution of corridor flows, Counter flow benefit on account of transactions in the reverse direction would be considered for short-term transactions wherever applicable.
- 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.
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- The figure is based on GNA approved by CTU. In actual Operation, due to Units being on Maintenance/ Fuel shortage/New units being commissionned, the dispatches of units 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.
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### **Limiting Constraints**

Corridor	Constraints	Revision
WR-NR	N-1 contingency of one ckt of 765 kV Vindhyachal-Varanasi will overload the other circuit	0-6
NR-ER	<ol> <li>Overloading of one circuit of 400 kV New Ranchi – New PPSP D/C on the tripping of the other circuit 2. Overloading of one circuit of 400 kV Kahalgaon – Farakka D/C on the tripping of the other circuit 3. Overloading of 400 kV Farakka – Sagardighi – 1 on the tripping of 400 kV Farakka – Sagardighi - 2</li> </ol>	0-6
WR-ER	<ol> <li>Overloading of one circuit of 400 kV New Ranchi – New PPSP D/C on the tripping of the other circuit 2. Overloading of one circuit of 400 kV Kahalgaon – Farakka D/C on the tripping of the other circuit 3. Overloading of 400 kV Farakka – Sagardighi – 1 on the tripping of 400 kV Farakka – Sagardighi - 2</li> </ol>	0-6
ER-NR	Inter-regional flow pattern towards NR	0-6
WR-SR	Outage of any one of the 2x1500 MVA, 765/400 kV ICTs at Maheswaram overloads the other ICT	0-6
ER-SR	1. Low Voltage at Gazuwaka (East) Bus.	0-6
SR-WR	a) Angular separation between Kudgi & Kolhapur (PG) under N-1 of 400 kV Kudgi - Kolhapur (PG) D/C touches 30 deg b) N-1 non-compliance of 2*1500 MVA, 765/400 kV ICTs at Section—A at Raigarh - PS(Kotra) with increase in HVDC Raigarh — Pugalur Bipole — II power order beyond 950 MW in SR to WR Direction (Solar Hours) c) N-1 non-compliance of 2*1500 MVA, 765/400 kV ICTs at Section—B at Raigarh -PS (Kotra) with increase in HVDC Raigarh — Pugalur Bipole — I power order beyond 450 MW in SR to WR Direction (Solar Hours) d) N-1 Contingency of 400 kV Pune — Kalwa will overload 400 kV Pune — Khargar and vice-versa	0-6
ER-NER	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Balipara-Sonabil D/C	0-6
NER-ER	a) N-1 contingency of 400 kV Bongaigaon-Alipurduar I or II b) High Loading of 400 kV Bongaigaon-Alipurduar II or I	0-6
NR_IMPORT	N-1 contingency of one ckt of 765 kV Vindhyachal-Varanasi will overload the other circuit	0-6
NR_EXPORT	Outage of any one of the two circuits from 400 kV Kankroli to 400 kV Zerda shall overload the other circuit.	0-6
NER_IMPORT	a) N-1 contingency of 400 kV Bongaigaon - Azara line b) High Loading of 220 kV Balipara-Sonabil D/C	0-6
NER_EXPORT	a) N-1 contingency of 400 kV Bongaigaon-Alipurduar I or II b) High Loading of 400 kV Bongaigaon-Alipurduar II or I	0-6
SR_IMPORT	1. Outage of any one of the 2x1500 MVA, 765/400 kV ICTs at Maheswaram overloads the other ICT 2. Low Voltage at Gazuwaka (East) Bus	0-6
SR_EXPORT	a) Angular separation between Kudgi & Kolhapur (PG) under N-1 of 400 kV Kudgi - Kolhapur (PG) D/C touches 30 deg b) N-1 non-compliance of 2*1500 MVA, 765/400 kV ICTs at Section—A at Raigarh - PS(Kotra) with increase in HVDC Raigarh — Pugalur Bipole — II power order beyond 950 MW in SR to WR Direction (Solar Hours) c) N-1 non-compliance of 2*1500 MVA, 765/400 kV ICTs at Section—B at Raigarh -PS (Kotra) with increase in HVDC Raigarh — Pugalur Bipole — I power order beyond 450 MW in SR to WR Direction (Solar Hours) d) N-1 Contingency of 400 kV Pune — Kalwa will overload 400 kV Pune — Khargar and vice-versa	0-6

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## **Revision Summary**

Revision	Date Of Revision	Period Of Revision	Reason for Revision/Comment	Corridor Affected
1	29 Doc	01 Jul to 31 Jul	Change in T-GNA Margin due to grant of additional 174 MW GNA to Uttar Pradesh from outside Northern Region	NR_IMPORT
1	28 Dec	01 Jul to 31 Jul	Change in T-GNA Margin due to grant of additional 55 MW GNA to Mizoram from outside North  Eastern Region	NER_IMPORT
		01 Jul to 31 Jul	TTC/ATC revised in view of change in load generation balance and inter-regional flow pattern towards NR	WR-NR
		01 Jul to 31 Jul	TTC/ATC revised in view of change in load generation balance and inter-regional flow pattern towards NR	ER-NR
2	26 Jan	01 Jul to 31 Jul	TTC/ATC increased with the Commissioning of 765/400 kV, 1500 MVA ICT - 3 at Nizamabad and Change in LGB	WR-SR
2	20 Jan	01 Jul to 31 Jul	TTC/ATC increased with the Commissioning of 765/400 kV, 1500 MVA ICT - 3 at Nizamabad and Change in LGB	ER-SR
		01 Jul to 31 Jul	TTC/ATC revised in view of change in load generation balance and inter-regional flow pattern towards NR	NR_IMPORT
		01 Jul to 31 Jul	TTC/ATC increased with the Commissioning of 765/400 kV, 1500 MVA ICT - 3 at Nizamabad and Change in LGB	SR_IMPORT
3	28 Feb	01 Jul to 31 Jul	Revised T-GNA margin due to approval of 500 MW GNA for Andhra Pradesh from Outside Southern Region	SR_IMPORT
4	20 May	01 Jul to 31 Jul	Enhancement in TTC due to Bypassing of 400 kV Kankroli - Bhinmal and 400 kV Bhinmal - Zerda at Bhinmal - PG (Temporary Arrangement) & revival of 400 KV Jodhpur-Kankroli-S/C after reconductoring	NR-WR
4	28 Mar	01 Jul to 31 Jul	Enhancement in TTC due to Bypassing of 400 kV Kankroli - Bhinmal and 400 kV Bhinmal - Zerda at Bhinmal - PG (Temporary Arrangement) & revival of 400 KV Jodhpur-Kankroli-S/C after reconductoring	NR_EXPORT
		01 Jul to 31 Jul	<ol> <li>Revised T-GNA margin due to approval of 6.54 MW GNA for Arunachal Pradesh from Outside North-Eastern Region.</li> <li>Revised T-GNA margin due to approval of 371 MW GNA for Assam from Outside North-Eastern Region</li> </ol>	NER_IMPORT
5	28 Apr	01 Jul to 31 Jul	Revised T-GNA margin due to approval of 25 MW GNA for Goa from Outside Western Region	WR_IMPORT
		01 Jul to 31 Jul	Revised T-GNA margin due to approval of 500 MW GNA for Karnataka from Outside Southern Region	SR_IMPORT
		01 Jul to 31 Jul	Revised T-GNA margin due to approval of 24 MW GNA for West Bengal from Outside Eastern Region	ER_IMPORT
		01 Jul to 31 Jul	TTC/ATC revised due to change in LGB	NR-WR
6	28 Jun	01 Jul to 31 Jul	TTC/ATC revised due to 1. Assurance received from POWERGRID vide communication dated 21st June 2024 stating that HVDC Champa-Kurukshetra link is in healthy condition and can be reliably operated up to its rated capacity of 6000 MW. 2. Change in load generation balance and inter-regional flow pattern since previous revision. 3. Full availability of HVDC Mundra - Mahendragarh Bipole to its rated capacity	WR-NR
		01 Jul to 31 Jul	TTC/ATC revised due to 1. Assurance received from POWERGRID vide communication dated 21st June 2024 stating that HVDC Champa-Kurukshetra link is in healthy condition and can be reliably operated up to its rated capacity of 6000 MW. 2. Change in load generation balance and inter-regional flow pattern since previous revision. 3. Full availability of HVDC Mundra - Mahendragarh Bipole to its rated capacity	NR_IMPORT

		ASSUMP	PTIONS IN BASECASE				
		M	Ionth : July'24				
S.No.	Name of State/Area	Den	nand	Genera	Generation		
		Non-Solar Peak(MW)	Solar Peak (MW)	Non-Solar Peak(MW)	Solar Peak (MW)		
I	NORTHERN REGION						
1	Punjab	7031	7510	4881	4940		
2	Haryana	7418	7386	3037	3499		
3	Rajasthan	13248	16311	8225	10042		
4	Delhi	4405	5136	564	545		
5	Uttar Pradesh	22062	18685	10734	11973		
6	Uttarakhand	2375	2108	694	463		

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7	Himachal Pradesh	1985	1936	474	302
8	Jammu & Kashmir	3311	2984	264	206
9	Chandigarh	266	258	0	0
10	ISGS/IPPs	105	105	18638	22308
	Total NR	62206	62419	47511	54278
II	EASTERN REGION				
1	Bihar	5063	4065	464	458
2	Jharkhand	1407	1559	410	365
3	Damodar Valley Corporation	3416	3284	5273	5244
4	Orissa	5269	4919	3608	3496
5	West Bengal	7175	6925	6049	5781
6	Sikkim	116	109	0	0
7	Bhutan	32	50	107	228
8	ISGS/IPPs	928	917	18890	15263
	Total ER	23406	21828	34802	30835
III	WESTERN REGION				
1	Maharashtra	24878	25141	15943	16380
2	Gujarat	18292	17984	6324	6349
3	Madhya Pradesh	15567	16371	6053	6073
4	Chattisgarh	4447	4465	1823	1592
5	DD & DNH	984	867	0	0
6	Goa-WR	660	554	0	0
7	ISGS/IPPs	2463	1937	53004	49159
	Total WR	67290	67320	83147	79553
IV	SOUTHERN REGION				
1	Andhra Pradesh	8005	10681	6952	8203
2	Telangana	10834	14680	5212	6980
3	Karnataka	12118	15214	6579	9390
4	Tamil Nadu	16381	16743	6524	9609
5	Kerala	4221	3432	1510	340
6	Pondy	493	494	0	0
7	Goa-SR	109	109	0	0
8	ISGS/IPPs	0	0	19847	21748
	Total SR	52162	61353	46623	56270
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	166	101	0	0
2	Assam	1441	1146	275	428
3	Manipur	262	139	0	0
4	Meghalaya	471	350	144	12
5	Mizoram	171	141	33	8
6	Nagaland	158	120	15	7
7	Tripura	369	318	190	187
8	ISGS/IPPs	0	0	3308	2557
	Total NER	3038	2314	3964	3200
	Total All India	208065	215177	215925	223878

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