National Load Despatch Centre Total Transfer Capability for February 2015

Issue Date: 02/02/2015

Issue Time: 1500 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 2015 to 28th February 2015 | 00-24 | 2500 | 500 | 2000 | 1055 | 945 | | |
| | 1st February 2015 | 00-09 | 4700 | 500 | 4200 | 4768 | 0 | | |
| | | 09-24' 00-17 | 4200 4700 | | 3700 | | 0 | | |
| | 2nd February 2015 | 23-24 17-23 | 4700 | 500 | 4200 4200 | 4768 | 0 | | |
| WR-NR | 3rd February 2015 to 10th February 2015 | 00-24 | 4200 | 500 | 3700 | 4768 | 0 | -500 | Revised considering the full generation at Rihand, Singrauli and Vindhyachal. TTC will be reviewd depending on the generation availability in this complex. |
| | 11th February 2015 to | 00-17 23-24 | 4700 | 500 | 4200 | 4768 | 0 | | |
| | 28th February 2015 | 17-23 | 4700 | 500 | 4200 | 1700 | 0 | | |
| | 1st February 2015 to | 00-06 | 2000 | | 1800 | 293 | 1507 | | |
| NR-ER* | 28th February 2015 | 18-24 06-18' | 2000 | 200 | 1800 | 358 | 1442 | | |
| | 1 | 00-17 | | 200 | | | 369 | | |
| | 1st February 2015 | 23-24 17-23 | 3100 | 300 | 2800 | 2431 | 369 | | |
| | | 00-08 3100 | 3100 | | 2800 | 2431 | 369 | | |
| | 2nd February 2015 | 08-17 23-24 | 2400 | 300 | 2100 | | 0 | | |
| ER-NR | 3rd February 2015 | 17-23 00-08 | 2800 2400 | | 2500 2100 | | 69 0 | -700 p | |
| | | 08-17 | 2400 | 300 | 2100 | 2431 | 0 | -700 | Revised due to continuous shutdown of 400 kV Kahalgaon- |
| | | 23-24 17-23 | 2400 | | 2500 | 2131 | 69 | | Barh D/C |
| | 4th February 2015 to | 00-17 | | | | | 369 | | |
| | 28th February 2015 | 23-24 17-23 | 3100 | 300 | 2800 | 2431 | 369 | | |
| W2 ED\$ | 1st February 2015 to | 00-24 | 1800 | 300 | 1500 | 351 | 1149 | | |
| W3-ER ^{\$} | 28th February 2015 1st February 2015 to | | | | | | | | |
| ER-W3 | 28th February 2015 | 00-24 | 1000 | 300 | 700 | 973 | 0 | | |
| | 1st February 2015 to 7th | 00-05 | 2500 | | 1750 | 10.50 | 400 | | |
| WR-SR## | February 2015 | 22-24 05-22' | 2100 | 750 | 1350 | 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 i | s being Specified. | I | |
| | 1st February 2015 to | 00-06 | | | | 2585 | 65 | | |
| ER-SR## | 28th February 2015 | 18-24 06-18' | 2650 | 0 | 2650 | 2585 | 0 | | |
| SR-ER * | 1st February 2015 to 28th February 2015 | 00-24 | No limit is being Specified. | | | | | | |
| | 1st February 2015 to | 00-17 | 650 | | 600 | | 390 | | |
| ER-NER | 28th February 2015 | 23-24 17-23 | 720 | 50 | 670 | 210 | 460 | | |
| | 1st February 2015 to | 00-17 | 650 | 30 | 620 | | 620 | | |
| NER-ER | 28th February 2015 | 23-24 17-23 | 710 | 40 | 670 | 0 | 670 | | |
| | | | | | | | | | |

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| 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 |
|-------------------------------|--|-------------------------|--|-----------------------|--|--|--|---|----------|
| | | 00-1330 | 3200 | | 2885 | 2520 | 365 | | |
| | 1st February 2015 | 1330-19 | 3520 | 315 | 3205 | 2630 | 575 | | |
| | | 19-24 | 3715 | | 3400 | 2030 | 770 | | |
| S1-S2 | 2nd February 2015 | 00-15 | 3715 | 315 | 3400 | 2630 | 770 | | |
| | 2110 1 001000 2010 | 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 | | |
| Import TTC for DD & DNH | 1st February 2015 to 28th February 2015 | 00-24 | 1200 | 0 | 1200 | | DA as per ex-pp edule | | |
| W3 zone Injection | 1st February 2015 to 28th February 2015 | 00-17 23-24 | 9400 | 200 | 9200 | 6862 | 2338 | | |
| injection | 28th February 2015 | 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).

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) KWPCL, 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 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.

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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 |
|----------|------|-------------------------|--|-----------------------|--|--|--|---|----------|
|----------|------|-------------------------|--|-----------------------|--|--|--|---|----------|

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 | (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 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) 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) |
| | *Primary constraints |

*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 | | | | | | | | | |
| | | 00-09 | 7800 | | 7000 | | 0 | | |
| | 1st February 2015 | 00-09 | 7800 | 800 | 7000 | 7199 | 0 | | |
| | | 09-24' | 7300 | | 6500 | | 0 | | |
| | | 00-08 | 7800 | | 7000 | | 0 | | |
| | 2nd February 2015 | 08-17 23-24 | 7100 | 800 | 6300 | 7199 | 0 | | |
| | | 17-23 | 7500 | | 6700 | | 0 | | |
| | 3rd February 2015 | 00-08 | 6600 | 800 | 5800 | 7199 | 0 | -1200 | Revised due to continuous shutdown of 400 kV Kahalgaon-Barh D/C and the full generation at Rihand, |
| NR | | 08-17 23-24 | 6600 | | 5800 | | 0 | -500 | |
| | | 17-23 | 7000 | | 6200 | | 0 | -500 | Singrauli and Vindhyachal. |
| | 4th February 2015 to 10th February 2015 | 00-17 23-24 | 7300 | 800 | 6500 | 7199 | 0 | -500 | Revised considering the full generation at Rihand, |
| | | 17-23 | 7300 | | 6500 | | 0 | | Singrauli and Vindhyachal. |
| | 11th February 2015 to 28th February | 00-17 23-24 | 7800 | 800 | 7000 | 7199 | 0 | | |
| | 2015 | 17-23 | 7800 | | 7000 | | 0 | | |
| NER | 1st February 2015 to 28th February 2015 | 00-17 23-24 | 650 | 50 | 600 | 210 | 390 | | |
| | 28th February 2015 | 17-23 | 720 | | 670 | | 460 | | |
| WR | | | | | | | | | |
| | | 00-05 | 5150 | | 4400 | 3935 | 465 | | |
| | | 05-06' | 4750 | | 4000 | 4000 | 0 | | |
| | 1st February 2015 to | 06-18' | 4750 | 750 | 4000 | 4000 | 0 | | |
| an ## | 7th February 2015 | 18-22' | 4750 | | 4000 | 3935 | 65 | | |
| SR## | | 22-24' | 5150 | | 4400 | 3935 | 465 | | |
| | 8th February 2015 to | 00-06 18-24 | 4750 | 750 | 4000 | 3935 | 65 | | |
| | 28th February 2015 | 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* | 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 | | | | | | | | | | |
| WK | | | | | | | | | | |
| 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) & liklihood of commencement of above transactions, the margins would be released for short term transactions on day ahead basis.

Limiting Constraints

| | | 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. |
|-----|--------|---|
| | 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 |
| | | D/C and from NR to WR on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda). |
| | Ermont | (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 contingencies of 400KV Kahalgaon-Banka S/C and 400 kV Farraka-Malda S/C. |
| NER | Export | (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa |
| | | 1. (n-1) contingency of one circuit of 400kV Parli(PG)-Sholapur(PG) |
| SR | Import | 2. ER-SR TTC has been declared assuming more than 1100 MW generation at Talcher Stage-2. In case Talcher Stage- |
| SK | import | 2 generation goes below 1100 MW, then the ER-SR TTC would be revised downward as constraints within ER would |
| | | emerge. |

*Primary constraints

| National Load Despatch Centre |
|--|
| Total Transfer Capability for Feburary 2015 |

| Revision | Date of | Period of | Reason for Revision | Corridor | | | |
|----------|------------|---------------|--|------------|--|--|--|
| No | Revision | Revision | | Affected | | | |
| | | | Margin revised due to change in LTA/MTOA. | NR-WR/ ER- | | | |
| | | | | W3/W3-ER | | | |
| 1 | 29-12-2014 | Whole Month | Revised considering change in LTA/MTOA and the New | W3 Zone | | | |
| | | | Transmission system commissioned. | Injection | | | |
| | | | Margin revised due to COD of SASAN Unit-5. | WR-NR | | | |
| | | | Revised due to LGBR Revision by constituents & KKNPP Unit- | | | | |
| 2 | 22-01-2014 | Whole Month | 1, commissioning of Coastal Energen | S1-S2 | | | |
| | | | Unit-1. | | | | |
| | | 01 02 2015 | Revised due to shutdown of 765kV Bus-I at Gwalior | WR-NR | | | |
| | 30-01-2014 | 01-02-2015 | Substation. | | | | |
| | | 01-02-2015 to | Revised considering the present demand pattern of | WR-SR | | | |
| 2 | | 07-02-2015 | 07-02-2015 Maharashtra during off -peak conditions. | | | | |
| 3 | | 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 | S1-S2 | | | |
| | | 01-02-2015 | Down. | 31-32 | | | |
| | | 02-02-2015 to | Pavised due to shutdown of 400 K/ Kabalgaan Barb D/C | ER-NR | | | |
| 4 | 01-02-2015 | 03-02-2015 | Revised due to shutdown of 400 kV Kahalgaon-Barh D/C | EN-INN | | | |
| 4 | 01-02-2015 | 01-02-2015 to | Revised due to outage of Vallur U-2 and expected | S1-S2 | | | |
| | | 02-02-2015 | restoration of 400kV Kalivindhapattu -Pugalur - 2 | | | | |
| | | 03-02-2015 | Revised due to continuous shutdown of 400 kV Kahalgaon- | ER-NR | | | |
| | | 03-02-2015 | Barh D/C | ER-NR | | | |
| 5 | 02-02-2015 | | | | | | |
| | 02-02-2015 | 03-02-2015 to | Revised considering the full generation at Rihand, Singrauli | | | | |
| | | 10-02-2015 | and Vindhyachal. TTC will be reviewd depending on the | WR-NR | | | |
| | | | generation availability in this complex. | | | | |