

National Load Despatch Centre
Total Transfer Capability for November 2017

Issue Date: 27th October 2017

Issue Time: 2300 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 November 2017 to 30th November 2017 | 00-06 | 2500 | 500 | 2000 | 55 | 1945 | | | |
| | | 06-18 | | | | 65 | 1935 | | | |
| | | 18-24 | | | | 55 | 1945 | | | |
| WR-NR* | 1st November 2017 to 30th November 2017 | 00-24 | 10050 | 500 | 9550 | 8368 | 1182 | | | |
| | | | | | | | | | | |
| NR-ER* | 1st November 2017 to 30th November 2017 | 00-06 | 2000 | 200 | | 1800 | 193 | 1607 | | |
| | | 06-18 | 2000 | | | 1800 | 303 | 1497 | | |
| | | 18-24 | 2000 | | | 1800 | 193 | 1607 | | |
| ER-NR* | 1st November 2017 to 30th November 2017 | 00-24 | 4500 | 300 | 4200 | 3030 | 1170 | | | |
| | | | | | | | | | | |
| W3-ER | 1st November 2017 to 30th November 2017 | 00-24 | No limit is being specified. | | | | | | | |
| ER-W3 | 1st November 2017 to 30th November 2017 | 00-24 | No limit is being specified. | | | | | | | |
| | | | | | | | | | | |
| WR-SR | 1st November 2017 to 30th November 2017 | 00-05 | 5700 | 500 | | 5200 | 3710 | 1490 | 1000 | Revised due to commissioning of 400 kV Nizamabad-Shankarapalli D/C and consideration of present load generation balance |
| | | 05-22 | 5700 | | | 5200 | | 1490 | 1000 | |
| | | 22-24 | 5700 | | | 5200 | | 1490 | 1000 | |
| SR-WR * | 1st November 2017 to 30th November 2017 | 00-24 | No limit is being Specified. | | | | | | | |
| | | | | | | | | | | |
| ER-SR | 1st November 2017 to 30th November 2017 | 00-06 | 3800 | 250 | 3550 | 3289 | 261 | 50 | Revised due to commissioning of 400 kV Nizamabad-Shankarapalli D/C and consideration of present load generation balance | |
| | | 06-18' | | | | 3374 | 176 | 50 | | |
| | | 18-24 | | | | 3289 | 261 | 50 | | |
| SR-ER * | 1st November 2017 to 30th November 2017 | 00-24 | No limit is being Specified. | | | | | | | |

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|---|---|-------------------|---|--------------------|-------------------------------------|--|--|-------------------------------------|----------|
| ER-NER | 1st November 2017 to 30th November 2017 | 00-17 | 1120 | 45 | 1075 | 225 | 850 | | |
| | | 17-23 | 1010 | | 965 | | 740 | | |
| | | 23-24 | 1120 | | 1075 | | 850 | | |
| NER-ER | 1st November 2017 to 30th November 2017 | 00-17 | 1340 | 45 | 1295 | 0 | 1295 | | |
| | | 17-23 | 1260 | | 1215 | | 1215 | | |
| | | 23-24 | 1340 | | 1295 | | 1295 | | |
| W3 zone Injection | 1st November 2017 to 30th November 2017 | 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).

- 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) KWPCCL, n)Vandana Vidyut 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 November 2017 to 30th November 2017 | 00-05 | 14350 | 800 | 13550 | 11398 | 2152 | | |
| | | 05-08 | 14350 | | 13550 | | 2152 | | |
| | | 08-18 | 14350 | | 13550 | | 2152 | | |
| | | 18-23 | 13050 | | 12250 | | 852 | | |
| | | 23-24 | 14350 | | 13550 | | 2152 | | |
| NER | 1st November 2017 to 30th November 2017 | 00-17 | 1120 | 45 | 1075 | 225 | 850 | | |
| | | 17-23 | 1010 | | 965 | | 740 | | |
| | | 23-24 | 1120 | | 1075 | | 850 | | |
| WR | | | | | | | | | |
| SR | 1st November 2017 to 30th November 2017 | 00-05 | 9500 | 750 | 8750 | 6998 | 1752 | 1050 | Revised due to commissioning of 400 kV Nizamabad-Shankarapalli D/C and consideration of present load generation balance |
| | | 05-06 | 9500 | | 8750 | 6998 | 1752 | 1050 | |
| | | 06-18 | 9500 | | 8750 | 7083 | 1667 | 1050 | |
| | | 18-22 | 9500 | | 8750 | 6998 | 1752 | 1050 | |
| | | 22-24 | 9500 | | 8750 | 6998 | 1752 | 1050 | |

* 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).

* 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 November 2017 to 30th November 2017 | 00-06 | 4500 | 700 | 3800 | 248 | 3552 | | |
| | | 06-18' | | | 3800 | 368 | 3432 | | |
| | | 18-24 | 4500 | | 3800 | 248 | 3552 | | |
| NER | 1st November 2017 to 30th November 2017 | 00-17 | 1340 | 45 | 1295 | 0 | 1295 | | |
| | | 17-23 | 1260 | | 1215 | | 1215 | | |
| | | 23-24 | 1340 | | 1295 | | 1295 | | |
| WR | | | | | | | | | |
| SR * | 1st November 2017 to 30th November 2017 | 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)

| | | Applicable Revisions |
|-------------------|--|----------------------|
| Corridor | Constraint | |
| NR-WR | (n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak | All |
| WR-NR | 1. (n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. 2.High Loading of 400kV Singrauli-Anpara S/C. | All |
| NR-ER | (n-1) contingency of 400 kV Saranath-Pusauli | All |
| ER-NR | (n-1) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon S/c | All |
| WR-SR & ER-SR | (n-1) contingency of 400 kV Dichipalli-Ramagundam or one ckt of 765 kV Aurangabad-Solapur D/C will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C) | All |
| | a. (n-1) contingency of 400 kV Vemagiri - Vijaywada S/C will lead to high loading (874 MW) on 400 kV Vemagiri - Gazuwaka S/C b. N-1 contingency of 765/400 kV 2x1500 MVA Maheswaram (PG) ICTs results in high loading of other ICT Low Voltage at Gazuwaka (East) Bus. | All except Rev 0-1 |
| | | All |
| ER-NER | a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Balipara-Sonabil line(200 MW) | All |
| 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 | All |
| W3 zone Injection | --- | All |

Limiting Constraints (Simultaneous)

| | | | Applicable Revisions |
|-----|--------|--|----------------------|
| NR | Import | (n-1) contingencies of N.Ranchi - Chandawa S/c & (n-1) contingencies of 400kV MPL- Maithon S/c. 1. (n-1) Contingency of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. 2.High Loading of 400kV Singrauli-Anpara S/C. | All |
| | Export | (n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli | All |
| 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) | All |
| | Export | (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. | All |
| SR | Import | (n-1) contingency of 400 kV Dichipalli-Ramagundam or one ckt of 765 kV Aurangabad-Solapur D/C will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C) | All |
| | | a. (n-1) contingency of 400 kV Vemagiri - Vijaywada S/C will lead to high loading (874 MW) on 400 kV Vemagiri - Gazuwaka S/C b. N-1 contingency of 765/400 kV 2x1500 MVA Maheswaram (PG) ICTs results in high loading of other ICT | All except Rev 0-1 |
| | | Low Voltage at Gazuwaka (East) Bus. | All |

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Total Transfer Capability for November 2017**

| Revision No | Date of Revision | Period of Revision | Reason for Revision | Corridor Affected |
|--------------------|-------------------------|---------------------------|--|------------------------------|
| 1 | 31st July 2017 | Whole month | Revised considering the change in LTA/MTOA granted by CTU | WR-NR/Import of NR |
| 2 | 20th September 2017 | Whole month | Revised considering commissioning and commercial operation of 765 kV Nizamabad - Maheswaram D/C, 765/400 kV 2x1500 MVA ICTs at Maheswaram, 400 kV Maheswaram(PG) - Maheswaram D/C, 400/220 kV 1x500 MVA ICTs at Maheswaram, 400 kV Maheswaram(PG) - Kurnool S/C and 400 kV Maheswaram - Ghanapur S/C (LIL0 of 400 kV Ghanapur - Kurnool S/C) | ER-SR / WR-SR / Import of SR |
| 3 | 29th September 2017 | Whole month | Due to commissioning and commercial operation of HVDC Champa Kurukshetra pole II and change in LTA/MTOA as approved by CTU | WR-NR / Import of NR |
| | | | Revised STOA margins to change in LTA/MTOA approved by CTU | WR-SR / ER-SR/Import of SR |
| 4 | 27th October 2017 | Whole month | Revised due to commissioning of 400 kV Nizamabad-Shankarapalli D/C and consideration of present load generation balance | WR-SR/ER-SR/Import of SR |

| ASSUMPTIONS IN BASECASE | | | | | |
|-------------------------|----------------------------|----------------|--------------------|-----------|----------------|
| | | | | | Month : Nov'17 |
| 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 | 5076 | 3313 | 2505 | 2469 |
| 2 | Haryana | 6779 | 3330 | 1533 | 1533 |
| 3 | Rajasthan | 10005 | 10899 | 5097 | 5121 |
| 4 | Delhi | 3244 | 1750 | 755 | 755 |
| 5 | Uttar Pradesh | 15422 | 13884 | 8026 | 7851 |
| 6 | Uttarakhand | 1899 | 1518 | 848 | 390 |
| 7 | Himachal Pradesh | 1421 | 1282 | 195 | 85 |
| 8 | Jammu & Kashmir | 2496 | 2504 | 551 | 356 |
| 9 | Chandigarh | 175 | 91 | 0 | 0 |
| 10 | ISGS/PPs | 26 | 26 | 17096 | 8611 |
| | Total NR | 46543 | 38599 | 36606 | 27171 |
| II | EASTERN REGION | | | | |
| 1 | Bihar | 4062 | 2536 | 202 | 181 |
| 2 | Jharkhand | 1290 | 891 | 197 | 190 |
| 3 | Damodar Valley Corporation | 3068 | 2634 | 4868 | 3974 |
| 4 | Orissa | 4265 | 3347 | 3232 | 2292 |
| 5 | West Bengal | 7139 | 5869 | 5379 | 4539 |
| 6 | Sikkim | 88 | 50 | 0 | 0 |
| 7 | Bhutan | 212 | 216 | 1434 | 1434 |
| 8 | ISGS/PPs | 267 | 263 | 11767 | 8535 |
| | Total ER | 20389 | 15807 | 27079 | 21146 |
| III | WESTERN REGION | | | | |
| 1 | Maharashtra | 17837 | 13518 | 12629 | 10871 |
| 2 | Gujarat | 12982 | 10844 | 9406 | 8143 |
| 3 | Madhya Pradesh | 11007 | 8265 | 5273 | 4547 |
| 4 | Chattisgarh | 3620 | 2188 | 2520 | 1990 |
| 5 | Daman and Diu | 312 | 269 | 0 | 0 |
| 6 | Dadra and Nagar Haveli | 635 | 686 | 0 | 0 |
| 7 | Goa-WR | 570 | 316 | 0 | 0 |
| 8 | ISGS/PPs | 3903 | 3510 | 34513 | 29450 |
| | Total WR | 50865 | 39597 | 64342 | 55002 |

| 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 | 7515 | 6742 | 5781 | 3958 |
| 2 | Telangana | 7346 | 5433 | 4521 | 2775 |
| 3 | Karnataka | 10351 | 8454 | 5936 | 4350 |
| 4 | Tamil Nadu | 13800 | 11600 | 6869 | 5544 |
| 5 | Kerala | 3743 | 2200 | 1400 | 141 |
| 6 | Pondy | 387 | 387 | 0 | 0 |
| 7 | Goa-SR | 87 | 87 | 0 | 0 |
| 8 | ISGS/PPs | 0 | 0 | 13456 | 12330 |
| | Total SR | 43229 | 34903 | 37963 | 29098 |
| V | NORTH-EASTERN REGION | | | | |
| 1 | Arunachal Pradesh | 122 | 63 | 0 | 0 |
| 2 | Assam | 1057 | 825 | 230 | 140 |
| 3 | Manipur | 147 | 87 | 0 | 0 |
| 4 | Meghalaya | 307 | 203 | 145 | 82 |
| 5 | Mizoram | 89 | 65 | 8 | 8 |
| 6 | Nagaland | 97 | 81 | 8 | 6 |
| 7 | Tripura | 197 | 185 | 83 | 82 |
| 8 | ISGS/PPs | 160 | 60 | 1677 | 1260 |
| | Total NER | 2176 | 1569 | 2151 | 1578 |
| | Total All India | 163444 | 130721 | 169633 | 135488 |