

National Load Despatch Centre
Total Transfer Capability for April 2017

Issue Date: 28/2/2017

Issue Time: 1200 hrs

Revision No. 2

| 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 Apr 2017 to 30th Apr 2017 | 00-06 | 2500 | 500 | 2000 | 55 | 1945 | | |
| | | 06-18 | | | | 65 | 1935 | | |
| | | 18-24 | | | | 55 | 1945 | | |
| WR-NR* | 1st Apr 2017 to 30th Apr 2017 | 00-24 | 7200 | 500 | 6700 | 6850 | 0 | | |
| NR-ER* | 1st Apr 2017 to 30th Apr 2017 | 00-06 | 2000 | 200 | 1800 | 193 | 1607 | | |
| | | 06-18' | 2000 | | 1800 | 303 | 1497 | | |
| | | 18-24 | 2000 | | 1800 | 193 | 1607 | | |
| ER-NR* | 1st Apr 2017 to 30th Apr 2017 | 00-24 | 4200 | 300 | 3900 | 2931 | 969 | | |
| W3-ER | 1st Apr 2017 to 30th Apr 2017 | 00-24 | No limit is being specified. | | | | | | |
| ER-W3 | 1st Apr 2017 to 30th Apr 2017 | 00-24 | No limit is being specified. | | | | | | |
| WR-SR | 1st Apr 2017 to 30th Apr 2017 | 00-05 | 3400 | 500 | 2900 | 2900 | 0 | -600 | Revised due to commissioning of 765 kV Angul-Srikakulam-Vemagiri D/C, LILO of 400 kV Gazuwaka - Nunna at Vemagiri (PG), and opening of 400 kV Vemagiri-Nunna S/C. STOA margin revised due to operationalization of MTOA. |
| | | 05-22 | 3400 | | 2900 | | 0 | | |
| | | 22-24 | 3400 | | 2900 | | 0 | | |
| SR-WR * | 1st Apr 2017 to 30th Apr 2017 | 00-24 | No limit is being Specified. | | | | | | |
| ER-SR | 1st Apr 2017 to 30th Apr 2017 | 00-06 | 3450 | 250 | 3200 | 3232 | 0 | 800 | Revised due to commissioning of 765 kV Angul-Srikakulam-Vemagiri D/C, LILO of 400 kV Gazuwaka - Nunna at Vemagiri (PG), and opening of 400 kV Vemagiri-Nunna S/C. STOA margin revised due to operationalization of MTOA. |
| | | 06-18' | | | | 3317 | 0 | | |
| | | 18-24 | | | | 3232 | 0 | | |
| SR-ER * | 1st Apr 2017 to 30th Apr 2017 | 00-24 | No limit is being Specified. | | | | | | |
| ER-NER | 1st Apr 2017 to 30th Apr 2017 | 00-17 | 1040 | 45 | 995 | 225 | 770 | | |
| | | 17-23 | 1050 | | 1005 | | 780 | | |
| | | 23-24 | 1040 | | 995 | | 770 | | |
| NER-ER | 1st Apr 2017 to 30th Apr 2017 | 00-17 | 1230 | 45 | 1185 | 0 | 1185 | | |
| | | 17-23 | 1300 | | 1255 | | 1255 | | |
| | | 23-24 | 1230 | | 1185 | | 1185 | | |
| W3 zone Injection | 1st Apr 2017 to 30th Apr 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 corridor, 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).

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

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

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.

Limiting Constraints

| Corridor | Constraint |
|-------------------|--|
| NR-WR | (n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak |
| 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. |
| NR-ER | (n-1) contingency of 400 kV Saranath-Pusauli |
| ER-NR | (n-1) contingencies of N.Ranchi - Chandawa S/C & (n-1) contingencies of 400kV MPL- Maithon S/C |
| WR-SR & ER-SR | (n-1) contingency of one circuit of 765kV Aurangabad-Sholapur will lead to 874 MW loading on 400kV Vemagiri(PG)-Gazuwaka (With Opening of 400kV Vemagiri(PG)-Nunna S/C) Low Voltage at Gazuwaka (East) Bus. |
| ER-NER | a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Samaguri-Sonabil line(200 MW) |
| 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 |
| W3 zone Injection | --- |

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 Apr 2017 to 30th Apr 2017 | 00-07 | 10300 | 800 | 9500 | 9781 | 0 | | |
| | | 07-18 | 10300 | | 9500 | | 0 | | |
| | | 18-23 | 9600 | | 8800 | | 0 | | |
| | | 23-24 | 10300 | | 9500 | | 0 | | |
| NER | 1st Apr 2017 to 30th Apr 2017 | 00-17 | 1040 | 45 | 995 | 225 | 770 | | |
| | | 17-23 | 1050 | | 1005 | | 780 | | |
| | | 23-24 | 1040 | | 995 | | 770 | | |
| WR | | | | | | | | | |
| SR | 1st Apr 2017 to 30th Apr 2017 | 00-05 | 6850 | 750 | 6100 | 6132 | 0 | 200 | Revised due to commissioning of 765 kV Angul-Srikakulam-Vemagiri D/C, LILO of 400 kV Gazuwaka - Nunna at Vemagiri (PG), and opening of 400 kV Vemagiri-Nunna S/C. STOA margin revised due to operationalization of MTOA. |
| | | 05-06 | 6850 | | 6100 | 6132 | 0 | | |
| | | 06-18 | 6850 | | 6100 | 6217 | 0 | | |
| | | 18-22 | 6850 | | 6100 | 6132 | 0 | | |
| | | 22-24 | 6850 | | 6100 | 6132 | 0 | | |

* 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 Apr 2017 to 30th Apr 2017 | 00-06 | 4500 | 700 | 3800 | 248 | 3552 | | |
| | | 06-18' | | | 3800 | 368 | 3432 | | |
| | | 18-24 | | | 3800 | 248 | 3552 | | |
| NER | 1st Apr 2017 to 30th Apr 2017 | 00-17 | 1230 | 45 | 1185 | 0 | 1185 | | |
| | | 17-23 | 1300 | | 1255 | | 1007 | | |
| | | 23-24 | 1230 | | 1185 | | 1185 | | |
| WR | | | | | | | | | |
| SR * | 1st Apr 2017 to 30th Apr 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

| | | |
|-----|--------|--|
| 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. |
| | Export | (n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Saranath-Pusauli |
| NER | Import | a. (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa b. High loading of 220 kV Samaguri-Sonabil line(200 MW) |
| | Export | (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA |
| SR | Import | 00-05 hrs & 22-24 hrs: (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2750 MW loading on the other circuit. |
| | | 05-22 hrs: (n-1) contingency of one circuit of 765 kV Aurangabad - Sholapur will lead to 2750 MW loading on the other circuit and 10kV voltage dip at Sholapur (PG) Low Voltage at Gazuwaka (East) Bus. |

**National Load Despatch Centre
Total Transfer Capability for April 2017**

| Revision No | Date of Revision | Period of Revision | Reason for Revision | Corridor Affected |
|--------------------|-------------------------|---------------------------|--|----------------------------|
| 1 | 02-03-2017 | Whole month | STOA margin revised considering Solar allocation in LTA/MTOA during non solar hours | Import of SR |
| 2 | 28-02-2017 | Whole month | Revised due to commissioning of 765 kV Angul-Srikakulam-Vemagiri D/C, LILO of 400 kV Gazuwaka - Nunna at Vemagiri (PG), and opening of 400 kV Vemagiri-Nunna S/C. STOA margin revised due to operationalization of MTOA. | WR-SR/ ER-SR/ Import of SR |

| ASSUMPTIONS IN BASECASE | | | | | |
|-------------------------|----------------------------|----------------|--------------------|------------------|---------------|
| | | | | Month : April'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 | 6138 | 5892 | 2760 | 2789 |
| 2 | Haryana | 6634 | 4998 | 2470 | 2470 |
| 3 | Rajasthan | 8620 | 8226 | 6298 | 6298 |
| 4 | Delhi | 4678 | 4074 | 437 | 437 |
| 5 | Uttar Pradesh | 13735 | 12612 | 7711 | 7738 |
| 6 | Uttarakhand | 1920 | 1329 | 728 | 691 |
| 7 | Himachal Pradesh | 1342 | 929 | 379 | 547 |
| 8 | Jammu & Kashmir | 2372 | 1687 | 618 | 700 |
| 9 | Chandigarh | 232 | 164 | 0 | 0 |
| 10 | ISGS/IPPs | 175 | 133 | 17627 | 11556 |
| | Total NR | 45844 | 40044 | 39027 | 33225 |
| II | EASTERN REGION | | | | |
| 1 | Bihar | 3680 | 2648 | 200 | 131 |
| 2 | Jharkhand | 1042 | 883 | 400 | 400 |
| 3 | Damodar Valley Corporation | 2531 | 2207 | 3741 | 3372 |
| 4 | Orissa | 4031 | 2991 | 3359 | 2199 |
| 5 | West Bengal | 7642 | 5394 | 5049 | 3656 |
| 6 | Sikkim | 89 | 39 | 0 | 0 |
| 7 | Bhutan | 245 | 245 | 842 | 527 |
| 8 | ISGS/IPPs | 563 | 568 | 9897 | 8843 |
| | Total ER | 19793 | 14946 | 23459 | 19114 |
| III | WESTERN REGION | | | | |
| 1 | Maharashtra | 19346 | 14655 | 15124 | 11320 |
| 2 | Gujarat | 13639 | 12072 | 9171 | 8787 |
| 3 | Madhya Pradesh | 7977 | 7209 | 3825 | 4078 |
| 4 | Chattisgarh | 3532 | 3572 | 2830 | 2020 |
| 5 | Daman and Diu | 303 | 258 | 0 | 0 |
| 6 | Dadra and Nagar Haveli | 787 | 692 | 0 | 0 |
| 7 | Goa-WR | 436 | 327 | 0 | 0 |
| 8 | ISGS/IPPs | 3139 | 3282 | 31411 | 27887 |
| | Total WR | 49158 | 42068 | 62360 | 54091 |

| ASSUMPTIONS IN BASECASE | | | | | |
|-------------------------|----------------------|----------------|--------------------|------------------|---------------|
| | | | | Month : April'17 | |
| 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 | 8268 | 7479 | 7920 | 6664 |
| 2 | Telangana | 8627 | 7461 | 3853 | 3386 |
| 3 | Karnataka | 9575 | 8509 | 7352 | 5568 |
| 4 | Tamil Nadu | 14817 | 12625 | 7110 | 6510 |
| 5 | Kerala | 4200 | 3110 | 1698 | 650 |
| 6 | Pondy | 395 | 330 | 0 | 0 |
| 7 | Goa-SR | 89 | 89 | 0 | 0 |
| 8 | ISGS/IPPs | 0 | 0 | 14288 | 12255 |
| | Total SR | 45971 | 39603 | 42222 | 35033 |
| V | NORTH-EASTERN REGION | | | | |
| 1 | Arunachal Pradesh | 110 | 68 | 0 | 0 |
| 2 | Assam | 1042 | 812 | 230 | 180 |
| 3 | Manipur | 132 | 74 | 0 | 0 |
| 4 | Meghalaya | 244 | 135 | 75 | 15 |
| 5 | Mizoram | 86 | 60 | 8 | 8 |
| 6 | Nagaland | 98 | 76 | 12 | 8 |
| 7 | Tripura | 217 | 135 | 82 | 77 |
| 8 | ISGS/IPPs | 83 | 60 | 1534 | 1070 |
| | Total NER | 2012 | 1420 | 1941 | 1358 |
| | Total All India | 162877 | 138219 | 169753 | 143348 |