

National Load Despatch Centre
Total Transfer Capability for October 2016

Issue Date: 20/9/2016

Issue Time: 1230 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 Oct 2016 to 31st Oct 2016 | 00-24 | 2500 | 500 | 2000 | 55 | 1945 | | |
| WR-NR* | 1st Oct 2016 to 31st Oct 2016 | 00-24 | 6600 | 500 | 6100 | 6170 | 0 | -200 | Revised considering the current rating of 400 kV isolators at Dhanaunda as 2000 A |
| NR-ER* | 1st Oct 2016 to 31st Oct 2016 | 00-06 | 2000 | 200 | 1800 | 93 | 1707 | | |
| | | 06-18' | 2000 | | 1800 | 158 | 1642 | | |
| | | 18-24 | 2000 | | 1800 | 93 | 1707 | | |
| ER-NR* | 1st Oct 2016 to 31st Oct 2016 | 00-24 | 4200 | 300 | 3900 | 2531 | 1369 | | |
| W3-ER ^s | 1st Oct 2016 to 31st Oct 2016 | 00-24 | No limit is being specified. | | | | | | |
| ER-W3 | 1st Oct 2016 to 31st Oct 2016 | 00-24 | No limit is being specified. | | | | | | |
| WR-SR | 1st Oct 2016 to 31st Oct 2016 | 00-24 | 4000 | 750 | 3250 | 3250 | 0 | | |
| SR-WR * | 1st Oct 2016 to 31st Oct 2016 | 00-24 | No limit is being Specified. | | | | | | |
| ER-SR | 1st Oct 2016 to 31st Oct 2016 | 00-06 | 2650 | 0 | 2650 | 2585 | 65 | | |
| | | 18-24 | | | | 2650 | 0 | | |
| SR-ER * | 1st Oct 2016 to 31st Oct 2016 | 00-24 | No limit is being Specified. | | | | | | |
| ER-NER | 1st Oct 2016 to 31st Oct 2016 | 00-17 | 1160 | 45 | 1115 | 210 | 905 | | |
| | | 23-24 | | | 1040 | | 995 | 785 | |
| NER-ER | 1st Oct 2016 to 31st Oct 2016 | 00-17 | 1250 | 45 | 1205 | 0 | 1205 | | |
| | | 23-24 | | | 1420 | | 1375 | 1375 | |
| W3 zone Injection | 1st Oct 2016 to 31st Oct 2016 | 00-24 | No limit is being specified (in case of skewed inter-regional flows or 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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|----------|------|-------------------|---------------------------------|--------------------|-------------------------------------|----------------------------------------------------------|----------------------------------------------------|-------------------------------------|----------|
|----------|------|-------------------|---------------------------------|--------------------|-------------------------------------|----------------------------------------------------------|----------------------------------------------------|-------------------------------------|----------|

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 contingency of one circuit of 400 kV Kahalgaon-Banka leads to high loading on the other circuit |
| WR-SR & ER-SR | (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2500 MW loading on the other circuit Low Voltage at Gazuwaka (East) Bus. |
| ER-NER | (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. n-1 contingency of 400/132 kV, 2 x 200 MVA ICTs at Silchar |
| 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 Oct 2016 to 31st Oct 2016 | 00-18 | 10500 | 800 | 9700 | 8701 | 999 | 1400 | Revised considering the current rating of 400 kV isolators at Dhanaunda as 2000 A and considering the present inter regional flow pattern |
| | | 18-23' | 9700 | | 8900 | | 199 | 600 | |
| | | 23-24 | 10500 | | 9700 | | 999 | 1400 | |
| NER | 1st Oct 2016 to 31st Oct 2016 | 00-17 23-24 | 1160 | 45 | 1115 | 210 | 905 | | |
| | | 17-23 | 1040 | | 995 | | 785 | | |
| WR | | | | | | | | | |
| SR | 1st Oct 2016 to 31st Oct 2016 | 00-06 | 6650 | 750 | 5900 | 5835 | 65 | | |
| | | 06-18' | 6650 | | 5900 | 5900 | 0 | | |
| | | 18-24 | 6650 | | 5900 | 5835 | 65 | | |

* 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 Oct 2016 to 31st Oct 2016 | 00-06 | 4500 | 700 | 3800 | 148 | 3652 | | |
| | | 06-18' | | | 3800 | 213 | 3587 | | |
| | | 18-24 | 4500 | | 3800 | 148 | 3652 | | |
| NER | 1st Oct 2016 to 31st Oct 2016 | 00-17 | 1250 | 45 | 1205 | 0 | 1205 | | |
| | | 23-24 | 1420 | | 1375 | | 1375 | | |
| | | 17-23 | | | | | | | |
| WR | | | | | | | | | |
| SR * | 1st Oct 2016 to 31st Oct 2016 | 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) contingency of one circuit of 400 kV Kahalgaon-Banka leads to high loading on the other circuit 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 | (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. n-1 contingency of 400/132 kV, 2 x 200 MVA ICTs at Silchar |
| | 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. |
| SR | Import | (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2500 MW loading on the other circuit |
| | | Low Voltage at Gazuwaka (East) Bus. |

**National Load Despatch Centre
Total Transfer Capability for October 2016**

| Revision No | Date of Revision | Period of Revision | Reason for Revision | Corridor Affected |
|--------------------|-------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 1 | 3/8/2016 | Whole month | Revised due to commissioning of 400 kV Ranchi-Chandawa-Gaya D/C, 765kV Varanasi-Kanpur D/C, 765kV Kanpur-Jhatikara S/C , 400kV Kanpur (GIS)-Kanpur D/C and considering total gen at Kawai, Chhabra, Kalisindh as 2500 MW and considering the present inter regional flow pattern | WR-NR/ Simultaneous import of NR |
| 2 | 20/9/2016 | Whole month | Revised considering the current rating of 400 kV isolators at Dhanaunda as 2000 A and considering the present inter regional flow pattern | WR-NR/ Simultaneous import of NR |

| ASSUMPTIONS IN BASECASE | | | | | |
|-------------------------|----------------------------|----------------|--------------------|---------------------|---------------|
| | | | | Month : October '16 | |
| 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 | 7766 | 6417 | 3969 | 3956 |
| 2 | Haryana | 7422 | 4463 | 2801 | 2801 |
| 3 | Rajasthan | 9095 | 9429 | 6037 | 5967 |
| 4 | Delhi | 4292 | 3146 | 772 | 772 |
| 5 | Uttar Pradesh | 13589 | 12991 | 7049 | 6868 |
| 6 | Uttarakhand | 1625 | 1401 | 589 | 602 |
| 7 | Himachal Pradesh | 1231 | 946 | 472 | 451 |
| 8 | Jammu & Kashmir | 2145 | 1599 | 584 | 575 |
| 9 | Chandigarh | 228 | 144 | 0 | 0 |
| 10 | ISGS/IPPs | 28 | 29 | 18919 | 11634 |
| | Total NR | 47421 | 40565 | 41192 | 33626 |
| II | EASTERN REGION | | | | |
| 1 | Bihar | 3522 | 2856 | 200 | 200 |
| 2 | Jharkhand | 1098 | 886 | 400 | 350 |
| 3 | Damodar Valley Corporation | 2442 | 2166 | 3400 | 3199 |
| 4 | Orissa | 3717 | 2953 | 2929 | 1960 |
| 5 | West Bengal | 7815 | 6401 | 4952 | 3940 |
| 6 | Sikkim | 98 | 49 | 0 | 0 |
| 7 | Bhutan | 215 | 215 | 1484 | 1302 |
| 8 | ISGS/IPPs | 569 | 581 | 9822 | 9141 |
| | Total ER | 19476 | 16106 | 23187 | 20092 |
| III | WESTERN REGION | | | | |
| 1 | Maharashtra | 21458 | 15798 | 14993 | 9184 |
| 2 | Gujarat | 14476 | 11561 | 12229 | 9172 |
| 3 | Madhya Pradesh | 9964 | 8177 | 6187 | 4363 |
| 4 | Chattisgarh | 4093 | 2962 | 3236 | 2276 |
| 5 | Daman and Diu | 317 | 266 | 0 | 0 |
| 6 | Dadra and Nagar Haveli | 687 | 547 | 0 | 0 |
| 7 | Goa-WR | 493 | 314 | 0 | 0 |
| 8 | ISGS/IPPs | 2911 | 2930 | 30214 | 29222 |
| | Total WR | 54398 | 42554 | 66858 | 54217 |

| | | | | | |
|----|----------------------|--------|--------|--------|--------|
| | | | | | |
| IV | SOUTHERN REGION | | | | |
| 1 | Andhra Pradesh | 7547 | 6184 | 6287 | 5429 |
| 2 | Telangana | 8313 | 7248 | 3291 | 2469 |
| 3 | Karnataka | 8206 | 7674 | 6511 | 4550 |
| 4 | Tamil Nadu | 13810 | 11812 | 6465 | 6064 |
| 5 | Kerala | 3801 | 2320 | 1647 | 648 |
| 6 | Pondy | 391 | 282 | 0 | 0 |
| 7 | Goa-SR | 89 | 89 | 0 | 0 |
| 8 | ISGS/IPPs | 0 | 0 | 13978 | 11953 |
| | Total SR | 42157 | 35609 | 38179 | 31114 |
| | | | | | |
| V | NORTH-EASTERN REGION | | | | |
| 1 | Arunachal Pradesh | 130 | 86 | 0 | 0 |
| 2 | Assam | 1211 | 975 | 275 | 215 |
| 3 | Manipur | 163 | 76 | 0 | 0 |
| 4 | Meghalaya | 296 | 225 | 244 | 166 |
| 5 | Mizoram | 87 | 64 | 8 | 0 |
| 6 | Nagaland | 119 | 101 | 16 | 6 |
| 7 | Tripura | 240 | 151 | 90 | 90 |
| 8 | ISGS/IPPs | 98 | 59 | 1825 | 1488 |
| | Total NER | 2344 | 1737 | 2458 | 1965 |
| | | | | | |
| | Total All India | 166040 | 136815 | 173388 | 142316 |