National Load Despatch Centre Total Transfer Capability for May 2016

Revision No. 6

Issue Time: 1600 hrs

Issue Date: 2/5/2016

Long Term Margin Changes Total Available Time Access (LTA)/ Available for in TTC Reliability Transfer Transfer Medium Term Corridor Date Period Short Term Comments w.r.t. Capability Margin Capability **Open Access** (hrs) **Open Access** Last (TTC) (ATC) (MTOA) # (STOA) Revision 1st May 2016 to NR-WR * 2500 00-24 500 2000 149 1851 31st May 2016 1st May 2016 30 00-24 6700 500 6200 6170 2nd May 2016 to 00-07 6700 500 6200 6170 30 3rd May 2016 07-24' 6170 500 5800 6300 0 4th May 2016 00-24 500 6200 6170 6700 30 00-07 6700 500 6200 6170 30 WR-NR* 5th May 2016 Revised due to correction in timing 07'-24 5850 500 5350 6170 0 of the shutdown 6th May 2016 to 00-24 5850 500 5350 6170 0 10th May 2016 11th May 2016 to 00-24 6700 500 6200 6170 30 31st May 2016 00-06 2000 1800 293 1507 1st May 2016 to NR-ER* 06-18' 2000 200 1800 358 1442 31st May 2016 18-24 2000 1800 293 1507 1st May 2016 to ER-NR* 00-24 3800 300 3500 2431 1069 31st May 2016 1st May 2016 to No limit is being specified. W3-ER^{\$} 00-24 No Re-routing is allowed via W3-ER-NR. 31st May 2016 1st May 2016 to ER-W3 00-24 No limit is being specified. 31st May 2016 1st May 2016 to 4000 3250 WR-SR 00-24 750 3250 0 31st May 2016 1st May 2016 to SR-WR * 00-24 No limit is being Specified. 31st May 2016 00-06 2585 0 18-24 1st May 2016 2350 0 2350 06-18' 2650 0 00-06 2585 0 ER-SR 2nd May 2016 to 18-24 2350 2350 0 3rd May 2016 06-18' 2650 0 00-06 4th May 2016 to 2585 65 2650 0 2650 18-24 31st May 2016 06-18' 2650 0 1st May 2016 to SR-ER * 00-24 No limit is being Specified. 31st May 2016 00-17 1st May 2016 to 1430 1385 1175 ER-NER 45 210 23-24 31st May 2016 17-23 1240 1195 985 00-17 1st May 2016 to 1200 1155 1155 45 NER-ER 0 23-24 31st May 2016 1255 17-23 1300 1255 W3 zone 1st May 2016 to No limit is being specified (in case of skewed inter-regional flows or any constraints 00-24 31st May 2016 appearing in the system, W3 zone export would be revised accordingly) Injection 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.

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Issue Date: 2/5/2016

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Revision No. 6

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

* 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).

\$ 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) 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) 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.

Limiting Constraints

| Corridor | Constraint |
|----------------------|---|
| NR-WR | (n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak |
| WR-NR | (n-1) Contingnecy of 765kV Gwalior-Agra one ckt leads to 2750 MW loading on second circuit. 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 cicuit of 400 kV Biharshariff- Lakhisarai leads to high loading on the other cicuit |
| 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 cntingency 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 | | | | | | | | | |
| | 1st May 2016 | 00-24 | 8400 | 800 | 7600 | 8601 | 0 | | |
| | 2nd May 2016 to 3rd May 2016 | 00-07 | 8400 | 800 | 7600 | 8601 | 0 | | |
| | 4th May 2016 | 07-24' | 7900 8400 | 800 | 7100 | 8601 | 0 | | |
| | 4th May 2016 | 00-24 | 8400 | 800 | 7600 | 8601 | 0 | | |
| | | 00-07 | 8400 | 800 | 7600 | 8601 | 0 | | |
| NR* | 5th May 2016 | 07'-24 | 7350 | 800 | 6550 | 8601 | 0 | | Revised due to correction in timing of the shutdown |
| | 6th May 2016 to 10th May 2016 | 00-24 | 7350 | 800 | 6550 | 8601 | 0 | | |
| | 11th May 2016 to 31st May 2016 | 00-24 | 8400 | 800 | 7600 | 8601 | 0 | | |
| NER | 1st May 2016 to 31st May 2016 | 00-17 23-24 | 1430 | 45 | 1385 | 210 | 1175 | | |
| | | 17-23 | 1240 | | 1195 | | 985 | | |
| WR | | | | | | | | | |
| | | 00-06 | 6350 | | 5600 | 5835 | 0 | | |
| SR | 1st May 2016 | 06-18' | 6350 | 750 | 5600 | 5900 | 0 | | |
| | | 18-24 | 6350 | | 5600 | 5835 | 0 | | |
| | | 00-06 | 6350 | | 5600 | 5835 | 0 | | |
| | 2nd May 2016 to 3rd May 2016 | 06-18' | 6350 | 750 | 5600 | 5900 | 0 | | |
| | | 18-24 | 6350 | | 5600 | 5835 | 0 | | |
| | 4th May 2016 to | 00-06 | 6650 | | 5900 | 5835 | 65 | | |
| | 31st May 2016 | 06-18' | 6650 | 750 | 5900 | 5900 | 0 | | |
| 5 | - | 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 May 2016 to 31st May 2016 | 00-06 06-18' | 4500 | 700 | 3800 3800 | 442 507 | 3358 3293 | | |
| | 51st May 2010 | 18-24 | 4500 | | 3800 | 442 | 3358 | | |
| NER | 1st May 2016 to | 00-17 23-24 | 1200 | 45 | 1155 | 0 | 1155 | | |
| | 31st May 2016 | 17-23 | 1300 | | 1255 | | 1255 | | |
| WR | | | | | | | | | |
| | | | | | | | | | |
| SR * | 1st May 2016 to 31st May 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

| | s comper annep | | | | | | |
|-----|----------------|---|--|--|--|--|--|
| | | (n-1) contingency of one circuit of 400 kV Biharshariff- Lakhisarai leads to high loading on the other circuit | | | | | |
| NR | Import | 1. (n-1) Contingnecy 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 | | | | | |
| | Import | (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA | | | | | |
| NER | | ICT at Misa. n-1 entingency of 400/132 kV, 2 x 200 MVA ICTs at Silchar | | | | | |
| NEK | _ | (n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa results in high loading of other 400/220 kV, 315 MVA | | | | | |
| | Export | ICT at Misa. | | | | | |
| SD | Import | (n-1) contingency of one circuit of 765 kV Raichur - Sholapur will lead to 2500 MW loading on the other circuit | | | | | |
| SR | Import | Low Voltage at Gazuwaka (East) Bus. | | | | | |

| National Load Despatch Centre |
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| Total Transfer Capability for May 2016 |

| Revision No | Date of Revision | Period of Revision | Reason for Revision | Corridor Affected |
|----------------|---------------------|---------------------------|--|---|
| 1 | 1/3/2016 | Whole Month | STOA Margin revised considering the completion of ISGS Allocation towards SR. | NR-WR/ Export of NR |
| 2 | 31/3/2016 | Whole Month | STOA Margin revised considering the grant of of MTOA. | WR-NR |
| 3 | 12/4/2016 | Whole Month | STOA Margin revised due to allocation of power from NR ISGS to SR Constituents | NR-WR/ Export of NR |
| | | 1/5/2016 | Revised considering the present high generation in Rajasthan state and trend of import of NR from WR and ER | WR-NR/ Import of NR |
| | | 1/5/2016 | Revised considering shutwon of one pole of HVDC Gazuwaka B/B and high valve hall temperature at HVDC Gauwaka B/B | ER-SR / Import of SR |
| 4 | 30/4/2016 | 2/5/2016 to 3/5/2016 | Revised due to shutdown of HVDC Rihand Dadri Bipole, considering present high generation trend in Rajasthan and trend of import of NR from WR and ER | |
| | | 4/5/2016 | Revised considering the present high generation in Rajasthan state and trend of import of NR from WR and ER | WR-NR/ |
| | | | 5/5/2016 to 10/5/2016 | Revised considering Shutdown of 765 kV Phagi - Bhiwani S/C, present high generation in Rajasthan and trend of import of NR from WR and ER |
| | | 11/5/2016 to 31/5/2016 | Revised considering the present high generation trend in Rajasthan state and trend of import of NR from WR and ER | |
| 5 | 1/5/2016 | 2/5/2016 to 3/5/2016 | Revised considering shutdown of one pole of HVDC Gazuwaka B/B and high valve hall temperature at HVDC Gauwaka B/B | ER-SR / Import of SR |
| 6 | 2/5/2016 | 5/5/2016 | Revised due to correction in timing of the shutdown | WR-NR/ Import of NR |

| ASSU | MPTIONS IN BASECASE | | | | |
|-------|----------------------------|----------------|--------------------|-----------------|---------------|
| | | | | Month : May '16 | |
| S.No. | Name of State/Area | | Load | Gene | eration |
| | | Peak Load (MW) | Off Peak Load (MW) | Peak (MW) | Off Peak (MW) |
| I | NORTHERN REGION | | | | |
| 1 | Punjab | 6191 | 5617 | 2395 | 2423 |
| 2 | Haryana | 6958 | 6342 | 2256 | 2256 |
| 3 | Rajasthan | 8173 | 7964 | 4722 | 4722 |
| 4 | Delhi | 4850 | 4752 | 1117 | 1117 |
| 5 | Uttar Pradesh | 13236 | 12912 | 6416 | 6087 |
| 6 | Uttarakhand | 1591 | 1325 | 724 | 730 |
| 7 | Himachal Pradesh | 1149 | 921 | 864 | 771 |
| 8 | Jammu & Kashmir | 2220 | 1595 | 753 | 735 |
| 9 | Chandigarh | 258 | 187 | 0 | 0 |
| 10 | ISGS/IPPs | 0 | 0 | 19254 | 16602 |
| | Total NR | 44627 | 41614 | 38500 | 35442 |
| | | | | | |
| II | EASTERN REGION | | | | |
| 1 | Bihar | 3004 | 2153 | 210 | 100 |
| 2 | Jharkhand | 1140 | 881 | 470 | 300 |
| 3 | Damodar Valley Corporation | 2652 | 2202 | 3463 | 2943 |
| 4 | Orissa | 3838 | 2931 | 2849 | 1818 |
| 5 | West Bengal | 7169 | 5199 | 4850 | 3600 |
| 6 | Sikkim | 98 | 64 | 0 | 0 |
| 7 | Bhutan | 215 | 215 | 757 | 427 |
| 8 | ISGS/IPPs | 629 | 626 | 10995 | 9916 |
| | Total ER | 18745 | 14270 | 23594 | 19104 |
| | | | | | |
| | WESTERN REGION | | | | |
| 1 | Maharashtra | 19564 | 14106 | 14568 | 10078 |
| 2 | Gujarat | 13686 | 12793 | 10999 | 9783 |
| 3 | Madhya Pradesh | 8365 | 5488 | 4654 | 3091 |
| 4 | Chattisgarh | 3699 | 2994 | 2392 | 1932 |
| 5 | Daman and Diu | 298 | 250 | 0 | 0 |
| 6 | Dadra and Nagar Haveli | 776 | 656 | 0 | 0 |
| 7 | Goa-WR | 478 | 281 | 0 | 0 |
| 8 | ISGS/IPPs | 1074 | 1073 | 27268 | 23418 |
| | Total WR | 47941 | 37639 | 59880 | 48301 |

| IV | SOUTHERN REGION | | | | |
|----|----------------------|--------|--------|--------|--------|
| 1 | Andhra Pradesh | 6930 | 5771 | 6047 | 5570 |
| 2 | Telangana | 7271 | 6232 | 2651 | 2111 |
| 3 | Karnataka | 9132 | 7475 | 6868 | 5269 |
| 4 | Tamil Nadu | 15237 | 13449 | 8546 | 6146 |
| 5 | Kerala | 3924 | 2824 | 1608 | 655 |
| 6 | Pondy | 391 | 309 | 0 | 0 |
| 7 | Goa-SR | 89 | 89 | 0 | 0 |
| 8 | ISGS/IPPs | 0 | 0 | 13286 | 11952 |
| | Total SR | 42621 | 35840 | 39006 | 31703 |
| | | | | | |
| V | NORTH-EASTERN REGION | | | | |
| 1 | Arunachal Pradesh | 115 | 44 | 0 | 0 |
| 2 | Assam | 1008 | 699 | 308 | 170 |
| 3 | Manipur | 112 | 59 | 0 | 0 |
| 4 | Meghalaya | 268 | 182 | 185 | 80 |
| 5 | Mizoram | 72 | 44 | 4 | 4 |
| 6 | Nagaland | 90 | 69 | 16 | 8 |
| 7 | Tripura | 246 | 157 | 87 | 87 |
| 8 | ISGS/IPPs | 0 | 0 | 1396 | 956 |
| | Total NER | 1902 | 1249 | 1996 | 1305 |
| | Total All India | 155837 | 130612 | 162976 | 135856 |