# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

**Power Supply Position in Northern Region for 13.05.2016**
**Date of Reporting : 14.05.2016**

**I. Regional Availability/Demand:**

| Evening Peak (20:00 Hrs) MW | | | | Off Peak (03:00 Hrs) MW | | | | Day Energy (Net MU) | |
|---|---|---|---|---|---|---|---|---|---|
| Demand Met | Shortage | Requirement | Freq* (Hz) | Demand Met | Shortage | Requirement | Freq* (Hz) | Demand Met | Shortage |
| 42726 | 520 | 43246 | 50.08 | 44588 | 421 | 45009 | 50.03 | 1042.9 | 11.51 |

* Half hourly (two 15 minutes block--one block each before and after the designated time) average frequency

**II. A. State's Load Details (At States periphery) in MUs:**

UI [OD:(+ve), UD: (-ve)]

| State | State's Control Area Generation (Net MU) | | | | Drawal Schedule | Actual Drawal | UI | Consumption | Shortages * |
|---|---|---|---|---|---|---|---|---|---|
| | Thermal | Hydro | Renewable/others $ | Total | (Net MU) | (Net MU) | (Net MU) | (Net MU) | (MU) |
| Punjab | 63.34 | 10.59 | | 73.93 | 75.31 | 75.38 | 0.07 | 149.31 | 0.00 |
| Haryana | 44.61 | 0.47 | | 45.07 | 98.26 | 96.62 | -1.64 | 141.69 | 0.00 |
| Rajasthan | 127.75 | 0.00 | 18.61 | 146.36 | 55.12 | 55.30 | 0.18 | 201.66 | 0.00 |
| Delhi | 17.92 | | | 17.92 | 91.28 | 90.99 | -0.29 | 108.91 | 0.11 |
| UP | 168.36 | 13.78 | | 182.14 | 144.61 | 143.28 | -1.33 | 325.42 | 0.00 |
| Uttarakhand | | 16.31 | | 16.31 | 22.80 | 24.39 | 1.59 | 40.70 | 0.41 |
| HP | | 16.87 | | 16.87 | 7.30 | 8.69 | 1.39 | 25.56 | 0.00 |
| J & K | | 19.55 | 0.00 | 19.55 | 18.38 | 24.44 | 6.06 | 43.99 | 11.00 |
| Chandigarh | | | | 0.00 | 5.62 | 5.67 | 0.27 | 5.67 | 0.00 |
| **Total** | **421.98** | **77.56** | **18.61** | **518.15** | **518.69** | **524.76** | **6.29** | **1042.91** | **11.51** |

* Shortage furnished by the respective constituent,$ Others include UP Co-generation and JK Diesel

**II. B. State's Demand Met in MWs:**

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]

| State | Evening Peak (20:00 Hrs) MW | | | | Off Peak (03:00 Hrs) MW | | | | # Max(hourly) Demand Met of Day (MW) |
|---|---|---|---|---|---|---|---|---|---|
| | Demand Met | Shortage | UI | STOA/PX transaction | Demand Met | Shortage | UI | STOA/PX transaction | |
| Punjab | 5212 | 0 | -533 | -170 | 6284 | 0 | -108 | 303 | 6866 |
| Haryana | 6727 | 0 | -145 | 524 | 6648 | 0 | -198 | 549 | 6895 |
| Rajasthan | 7999 | 0 | -227 | 131 | 8653 | 0 | 90 | 51 | 9651 |
| Delhi | 4278 | 0 | -50 | 456 | 4644 | 0 | 340 | 330 | 5339 |
| UP | 13413 | 0 | -22 | 1127 | 14014 | 0 | -180 | 1578 | 14073 |
| Uttarakhand | 1897 | 40 | 39 | 363 | 1578 | 0 | -38 | 291 | 1897 |
| HP | 1023 | 0 | -13 | -1183 | 882 | 0 | -27 | -839 | 1241 |
| J&K | 1921 | 480 | 409 | -631 | 1685 | 421 | 33 | -646 | 2073 |
| Chandigarh | 256 | 0 | -5 | 0 | 200 | 0 | -12 | 0 | 298 |
| **Total** | **42726** | **520** | **-546** | **617** | **44588** | **421** | **-100** | **1617** | **46215** |

* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.05

**III. Regional Entities :**

UI [OG:(+ve), UG: (-ve)]

| | Station/ Constituent | Inst. Capacity (Effective) MW | Declared Capacity(MW) | Peak MW (Gross) | Off Peak MW (Gross) | Energy (Net MU) | Average Sentout(MW) | Schedule Net MU | UI Net MU |
|---|---|---|---|---|---|---|---|---|---|
| A. NTPC | Singrauli STPS (5*200+2*500) | 2000 | 1161 | 1348 | 1310 | 27.97 | 1165 | 26.62 | 1.35 |
| | Rihand I STPS (2*500) | 1000 | 780 | 772 | 753 | 17.82 | 743 | 17.51 | 0.31 |
| | Rihand II STPS (2*500) | 1000 | 963 | 1035 | 1021 | 22.49 | 937 | 22.13 | 0.36 |
| | Rihand III STPS (2*500) | 1000 | 963 | 1013 | 1022 | 22.49 | 937 | 22.56 | -0.08 |
| | Dadri I STPS (4*210) | 840 | 805 | 410 | 407 | 10.37 | 432 | 10.69 | -0.32 |
| | Dadri II STPS (2*490) | 980 | 970 | 628 | 717 | 17.39 | 724 | 18.16 | -0.77 |
| | Unchahar I TPS (2*210) | 420 | 346 | 295 | 358 | 7.51 | 313 | 7.73 | -0.22 |
| | Unchahar II TPS (2*210) | 420 | 396 | 294 | 381 | 7.89 | 329 | 8.23 | -0.34 |
| | Unchahar III TPS (1*210) | 210 | 200 | 151 | 196 | 4.17 | 174 | 4.26 | -0.09 |
| | ISTPP (Jhajjhar) (3*500) | 1500 | 1425 | 1317 | 1162 | 24.23 | 1010 | 24.39 | -0.16 |
| | Dadri GPS (4*130.19+2*154.51) | 830 | 781 | 171 | 307 | 5.36 | 223 | 5.56 | -0.20 |
| | Anta GPS (3*88.71+1*153.2) | 419 | 392 | 0 | 198 | 0.78 | 33 | 0.87 | -0.08 |
| | Auraiya GPS (4*111.19+2*109.30) | 663 | 622 | 136 | 139 | 3.32 | 138 | 3.46 | -0.14 |
| | Dadri Solar(5) | 5 | 1 | 0 | 0 | 0.00 | 0 | 0.02 | -0.02 |
| | Unchahar Solar(10) | 10 | 2 | 0 | 0 | 0.00 | 0 | 0.05 | -0.05 |
| | Singrauli Solar(15) | 15 | 3 | 0 | 0 | 0.00 | 0 | 0.06 | -0.06 |
| | KHEP(4*200) | 800 | 872 | 865 | 596 | 9.23 | 385 | 9.00 | 0.23 |
| | **Sub Total (A)** | **12112** | **10681** | **8435** | **8567** | **181** | **7543** | **181** | **0** |
| B. NPC | NAPS (2*220) | 440 | 378 | 195 | 195 | 8.71 | 363 | 9.06 | -0.35 |
| | RAPS- B (2*220) | 440 | 372 | 410 | 412 | 8.79 | 366 | 8.93 | -0.14 |
| | RAPS- C (2*220) | 440 | 410 | 435 | 440 | 9.39 | 391 | 9.84 | -0.45 |
| | **Sub Total (B)** | **1320** | **1160** | **1040** | **1047** | **26.90** | **1121** | **27.83** | **-0.93** |
| C. NHPC | Chamera I HPS (3*180) | 540 | 535 | 536 | 539 | 12.89 | 537 | 12.75 | 0.14 |
| | Chamera II HPS (3*100) | 300 | 300 | 313 | 204 | 6.84 | 285 | 6.74 | 0.10 |
| | Chamera III HPS (3*77) | 231 | 229 | 226 | 150 | 4.43 | 185 | 4.42 | 0.02 |
| | Bairasuil HPS(3*60) | 180 | 179 | 183 | 124 | 2.63 | 110 | 2.56 | 0.07 |
| | Salal-HPS (6*115) | 690 | 567 | 661 | 572 | 14.03 | 585 | 13.68 | 0.35 |
| | Tanakpur-HPS (3*31.4) | 94 | 36 | 57 | 61 | 1.00 | 42 | 0.84 | 0.16 |
| | Uri-I HPS (4*120) | 480 | 475 | 476 | 475 | 11.57 | 482 | 11.40 | 0.17 |
| | Uri-II HPS (4*60) | 240 | 237 | 241 | 240 | 5.73 | 239 | 5.69 | 0.04 |
| | Dhauliganga-HPS (4*70) | 280 | 280 | 229 | 70 | 3.32 | 138 | 3.09 | 0.23 |
| | Dulhasti-HPS (3*130) | 390 | 387 | 406 | 404 | 9.38 | 391 | 9.29 | 0.09 |
| | Sewa-II HPS (3*40) | 120 | 119 | 128 | 120 | 2.90 | 121 | 2.84 | 0.07 |
| | Parbati 3 (4*130) | 520 | 260 | 130 | 0 | 2.03 | 84 | 1.96 | 0.07 |
| | **Sub Total (C )** | **4065** | **3605** | **3586** | **2958** | **77** | **3198** | **75** | **1** |
| D.SJVNL | NJPC (6*250) | 1500 | 1605 | 1620 | 1199 | 32.94 | 1373 | 32.83 | 0.11 |
| | Rampur HEP (6*68.67) | 412 | 442 | 447 | 338 | 9.26 | 386 | 9.10 | 0.16 |
| | **Sub Total (D)** | **1912** | **2047** | **2067** | **1537** | **42.21** | **1759** | **41.93** | **0.27** |
| E. THDC | Tehri HPS (4*250) | 1000 | 256 | 258 | 132 | 3.05 | 127 | 3.00 | 0.05 |
| | Koteshwar HPS (4*100) | 400 | 82 | 189 | 66 | 1.92 | 80 | 1.89 | 0.03 |
| | **Sub Total (E)** | **1400** | **338** | **447** | **198** | **4.97** | **207** | **4.89** | **0.08** |
| F. BBMB | Bhakra HPS (2*108+3*126+5*157) | 1379 | 614 | 1026 | 443 | 14.97 | 624 | 14.72 | 0.25 |
| | Dehar HPS (6*165) | 990 | 509 | 660 | 495 | 12.20 | 508 | 12.21 | -0.01 |
| | Pong HPS (6*66) | 396 | 96 | 150 | 50 | 2.32 | 97 | 2.31 | 0.01 |
| | **Sub Total (F)** | **2765** | **1219** | **1836** | **988** | **29.49** | **1229** | **29.25** | **0.25** |
| G. IPP(s)/JV(s) | ALLAIN DUHANGAN HPS(IPP) (2* | 192 | 0 | 89 | 92 | 2.02 | 84 | 1.92 | 0.10 |
| | KARCHAM WANGTOO HPS(IPP) ( | 1000 | 0 | 890 | 732 | 18.34 | 764 | 17.92 | 0.42 |
| | Malana Stg-II HPS (2*50) | 100 | 0 | 108 | 45 | 0.96 | 40 | 0.94 | 0.02 |
| | Shree Cement TPS (2*150) | 300 | 0 | 282 | 167 | 5.63 | 235 | 6.00 | -0.37 |
| | Budhil HPS(IPP) (2*35) | 70 | 0 | 40 | 39 | 0.92 | 38 | 0.94 | -0.02 |
| | Sub Total (G ) | 1662 | 0 | 1409 | 1074 | 27.87 | 1161 | 27.72 | 0.15 |
| **H. Total Regional Entities (A-G)** | | **25237** | **19050** | **18819** | **16369** | **389.22** | **16218** | **388.17** | **1.05** |

| I. State Entities | Station | Effective Installed Capacity (MW) | Peak MW | Off Peak MW | Energy(MU) | Average(Sentout MW) |
|---|---|---|---|---|---|---|
| **Punjab** | Guru Gobind Singh TPS (Ropar) (6*210) | 1260 | 684 | 540 | 15.08 | 628 |
| | Guru Nanak Dev TPS(Bhatinda) (2*110+2*120) | 460 | 100 | 100 | 2.45 | 102 |
| | Guru Hargobind Singh TPS(L.mbt) (2*210+2*250) | 920 | 815 | 852 | 19.60 | 817 |
| | Goindwal(GVK) (2*270) | 540 | 0 | 0 | -0.06 | -2 |
| | Rajpura (2*700) | 1400 | 660 | 1320 | 26.53 | 1106 |
| | Talwandi Saboo (3*660) | 1980 | 0 | 0 | -0.27 | -11 |
| | **Thermal (Total)** | **6560** | **2259** | **2812** | **63.34** | **2639** |
| | Total Hydro | 1000 | 432 | 438 | 10.59 | 441 |
| | **Total Punjab** | **7560** | **2691** | **3250** | **73.93** | **3080** |
| **Haryana** | Panipat TPS (4*110+2*210+2*250) | 1367 | 392 | 424 | 9.55 | 398 |
| | DCRTPP (Yamuna nagar) (2*300) | 600 | 0 | 0 | 0.00 | 0 |
| | Faridabad GPS (NTPC)(2*137.75+1*156) | 432 | 160 | 187 | 4.03 | 168 |
| | RGTPP (khedar) (IPP) (2*600) | 1200 | 430 | 572 | 9.82 | 409 |
| | Magnum Diesel (IPP) | 25 | 0 | 0 | 0.00 | 0 |
| | Jhajjar(CLP) (2*660) | 1320 | 1077 | 1114 | 21.22 | 884 |
| | **Thermal (Total)** | **4944** | **2059** | **2297** | **44.61** | **1859** |
| | Total Hydro | 62 | 22 | 23 | 0.47 | 19 |
| | **Total Haryana** | **5006** | **2081** | **2320** | **45.07** | **1878** |
| **Rajasthan** | kota TPS (2*110+2*195+3*210) | 1240 | 809 | 776 | 19.12 | 796 |
| | suratgarh TPS (6*250) | 1500 | 770 | 962 | 20.75 | 865 |
| | Chabra TPS (4*250) | 1000 | 752 | 809 | 19.18 | 799 |
| | Dholpur GPS (3*110) | 330 | 94 | 100 | 2.53 | 105 |
| | Ramgarh GPS(1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50) | 271 | 188 | 180 | 4.59 | 191 |
| | RAPS A (NPC) (1*100+1*200) | 300 | 0 | 0 | 0.00 | 0 |
| | Barsingsar (NLC) (2*125) | 250 | 82 | 83 | 1.85 | 77 |
| | Giral LTPS (2*125) | 250 | 0 | 0 | 0.00 | 0 |
| | Rajwest LTPS (IPP) (8*135) | 1080 | 406 | 396 | 12.97 | 540 |
| | VS LIGNITE LTPS (IPP) (1*135) | 135 | 0 | 0 | 0.00 | 0 |
| | Kalisindh Thermal(2*600) | 1200 | 810 | 812 | 21.34 | 889 |
| | Kawai(Adani) (2*660) | 1320 | 957 | 873 | 25.44 | 1060 |
| | **Thermal (Total)** | **8876** | **4868** | **4991** | **128** | **5323** |
| | Total Hydro | 550 | 0 | 0 | 0.00 | 0 |
| | Wind power | 3214 | 826 | 1151 | 18.07 | 753 |
| | Biomass | 99 | 18 | 18 | 0.44 | 18 |
| | Solar | 730 | 0 | 0 | 0.11 | 4 |
| | Renewable/Others (Total) | 4043 | 844 | 1169 | 18.61 | 775 |
| | **Total Rajasthan** | **13469** | **5712** | **6160** | **146.36** | **6098** |
| **UP** | Anpara TPS (3*210+2*500) | 1630 | 1247 | 1407 | 31.67 | 1320 |
| | Obra TPS (2*50+2*94+5*200) | 1194 | 572 | 467 | 12.89 | 537 |
| | Paricha TPS (2*110+2*220+2*250) | 1160 | 658 | 914 | 22.00 | 917 |
| | Panki TPS (2*105) | 210 | 131 | 131 | 3.12 | 130 |
| | Harduaganj TPS (1*60+1*105+2*250) | 665 | 539 | 544 | 12.92 | 538 |
| | Tanda TPS (NTPC) (4*110) | 440 | 385 | 383 | 9.15 | 381 |
| | Roza TPS (IPP) (4*300) | 1200 | 1094 | 1089 | 24.68 | 1028 |
| | Anpara-C (IPP) (2*600) | 1200 | 1071 | 1080 | 25.75 | 1073 |
| | Bajaj Energy Pvt.Ltd(IPP) TPS (10*45) | 450 | 283 | 405 | 7.58 | 316 |
| | Anpara-D(2*500) | 1000 | 262 | 454 | 10.04 | 419 |
| | Lalitpur TPS(3*660) | 1980 | 350 | 0 | 6.16 | 257 |
| | Bara(2*660) | 1320 | 0 | 0 | 0.00 | 0 |
| | **Thermal (Total)** | **12449** | **6592** | **6874** | **166** | **6915** |
| | Vishnuparyag HPS (IPP)(4*110) | 440 | 435 | 435 | 9.67 | 403 |
| | Alaknanada(4*82.5) | 330 | 169 | 84 | 2.96 | 123 |
| | Other Hydro | 527 | 59 | 20 | 1.15 | 48 |
| | Cogeneration | 981 | 100 | 100 | 2.40 | 100 |
| | **Total UP** | **14727** | **7355** | **7513** | **182** | **7589** |
| **Uttarakhand** | Total Hydro | 1398 | 714 | 642 | 16.31 | 680 |
| | **Total Uttarakhand** | **1398** | **714** | **642** | **16.31** | **680** |
| **Delhi** | Rajghat TPS (2*67.5) | 135 | 0 | 0 | 0.00 | 0 |
| | Delhi Gas Turbine (6x30 + 3x34) | 282 | 100 | 71 | 1.67 | 70 |
| | Pragati Gas Turbine (2x104+ 1x122) | 330 | 199 | 263 | 6.33 | 264 |
| | Rithala GPS (3*36) | 95 | 0 | 0 | 0.00 | 0 |
| | Bawana GPS (4*216+2*253) | 1370 | 254 | 254 | 6.09 | 254 |
| | Badarpur TPS (NTPC) (3*95+2*210) | 705 | 180 | 162 | 3.83 | 160 |
| | Thermal (Total) | 2917 | 733 | 750 | 17.92 | 747 |
| | **Total Delhi** | **2917** | **733** | **750** | **17.92** | **747** |
| **HP** | Baspa HPS (IPP) (3*100) | 300 | 335 | 305 | 7.10 | 296 |
| | Malana HPS (IPP) (2*43) | 86 | 81 | 40 | 0.88 | 37 |
| | Other Hydro | 878 | 378 | 380 | 8.89 | 370 |
| | **Total HP** | **1264** | **794** | **725** | **16.87** | **703** |
| **J & K** | Baglihar HPS (IPP) (3*150+2*150) | 750 | 444 | 735 | 15.89 | 662 |
| | Other Hydro/IPP | 560 | 159 | 142 | 3.66 | 153 |
| | Gas/Diesel/Others | 190 | 0 | 0 | 0.00 | 0 |
| | **Total J & K** | **1500** | **603** | **877** | **19.55** | 815 |
| **Total State Control Area Generation** | | **47841** | **20683** | **22237** | **518.15** | **21590** |
| **J. Net Inter Regional Exchange** [Import (+ve)/Export (-ve)] | | | **4943** | **6913** | **140.44** | **5852** |
| **Total Regional Availability(Gross)** | | **73078** | **44445** | **45519** | **1047.82** | **43659** |

**IV. Total Hydro Generation:**

| | | | | | |
|---|---|---|---|---|---|
| **Regional Entities Hydro** | **12234** | **9887** | **7146** | **183.97** | **7666** |
| **State Control Area Hydro** | **6881** | **3228** | **3244** | **78** | **3232** |
| **Total Regional Hydro** | **19115** | **13115** | **10390** | **261.53** | **10897** |

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

| Element | Peak(20:00 Hrs) | Off Peak(03:00 Hrs | Maximum Interchange (MW) | | Energy (MU) | | Net Energy |
|---|---|---|---|---|---|---|---|
| | MW | MW | Import | Export | Import | Export | MU |
| Vindhychal(HVDC B/B) | -250 | 250 | 250 | 250 | 2.43 | 3.68 | -1.25 |
| 765 KV Gwalior-Agra (D/C) | 2235 | 2700 | 2761 | 0 | 58.46 | 0.00 | 58.46 |
| 400 KV Zerda-Kankroli | -280 | -217 | 0 | 376 | 0.00 | 6.05 | -6.05 |
| 400 KV Zerda-Bhinmal | -214 | -153 | 0 | 375 | 0.00 | 4.20 | -4.20 |
| 220 KV Auraiya-Malanpur | -38 | -28 | 0 | 83 | 0.00 | 0.69 | -0.69 |
| 220 KV Badod-Kota/Morak | -30 | 16 | 53 | 35 | 0.00 | 2.38 | -2.38 |
| Mundra-Mohindergarh(HVDC Bipole) | 2204 | 2203 | 2219 | 0 | 53.21 | 0.00 | 53.21 |
| 400 KV Vindhyachal - Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 kV Phagi-Gwalior (D/C) | 425 | 777 | 852 | 0 | 14.77 | 0.00 | 14.77 |
| **Sub Total WR** | **4052** | **5548** | | | **128.87** | **17.00** | **111.88** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pusauli Bypass/HVDC | 200 | 0 | 200 | 0 | 2.94 | 0.00 | 2.94 |
| 400 KV MZP- GKP (D/C) | 48 | 196 | 287 | 0 | 4.20 | 0.00 | 4.20 |
| 400 KV Patna-Balia(D/C) X 2 | 320 | 463 | 571 | 0 | 10.89 | 0.00 | 10.89 |
| 400 KV B'Sharif-Balia (D/C) | 12 | 61 | 196 | 0 | 1.55 | 0.00 | 1.55 |
| 765 KV Gaya-Balia | 117 | 143 | 331 | 0 | 1.89 | 0.00 | 1.89 |
| 765 KV Gaya-Varanasi (D/C) | -17 | 18 | -102 | 143 | 0.00 | 1.48 | -1.48 |
| 220 KV Pusauli-Sahupuri | 176 | 201 | 216 | 0 | 4.47 | 0.00 | 4.47 |
| 132 KV K'nasa-Sahupuri | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 132 KV Son Ngr-Rihand | -30 | -20 | 0 | 30 | 0.00 | 0.52 | -0.52 |
| 132 KV Garhwa-Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 KV Sasaram - Fatehpur | -209 | -66 | 4 | 235 | 0.00 | 2.62 | -2.62 |
| 400 KV Barh -GKP (D/C) | 396 | 490 | 534 | 0 | 8.64 | 0.00 | 8.64 |
| 400 kvB'Sharif - Varanasi (D/C) | -122 | -121 | 0 | 101 | 0.00 | 1.38 | -1.38 |
| **Sub Total ER** | **891** | **1365** | | | **34.57** | **6.01** | **28.57** |
| +/- 800 KV BiswanathCharialli-Agra | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| **Sub Total NER** | **0** | **0** | | | **0.00** | **0.00** | **0.00** |
| **Total IR Exch** | **4943** | **6913** | | | **163.45** | **23.00** | **140.44** |

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

| ISGS/LT Schedule (MU) | | | Bilateral Schedule (MU) | | Power Exchange Shdl (MU) | | Wheeling (MU) | |
|---|---|---|---|---|---|---|---|---|
| ER | Bhutan | Total | Through ER | Through WR | Through ER | Through WR | Through ER | Through WR |
| 30.83 | 0.43 | 31.27 | 2.55 | 8.24 | 1.54 | 0.00 | 0.00 | 0.00 |

| Total IR Schedule (MU) | | | Total IR Actual (MU) | | | Net IR UI (MU) | | |
|---|---|---|---|---|---|---|---|---|
| Through ER | Through WR Incids Mndra | Total | Through ER(including NER) | Through WR | Total | Through ER (including NER) | Through WR | Total |
| 35.35 | 118.68 | 154.03 | 28.57 | 111.88 | 140.44 | -6.78 | -6.80 | -13.58 |

**V(C). Inter National Exchange with Nepal [Import (+ve)/Export (-ve)] [Linkwise]**

| Element | Peak(20:00 Hrs) | Off Peak(03:00 Hrs | Maximum Interchange (MW) | | Energy (MU) | | Net Energy |
|---|---|---|---|---|---|---|---|
| | MW | MW | Import | Export | Import | Export | MU |
| 132 KV Tanakpur - Mahendarnagar | -28 | -28 | 0 | 32 | 0 | 1 | -0.69 |

**VI. Frequency Profile <---------- % of Time Frequency ---------->**

| <49.2 | <49.7 | <49.8 | <49.9 | <50.0 | 49.9-50.05 | 50.05-50.10 | 50.10-50.20 | >50.20 | >50.50 |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.25 | 9.56 | 54.86 | 76.44 | 11.94 | 2.14 | 0.00 | 0.00 |

| <---------- Frequency (Hz) ----------> | | | | Average | Frequency | Std. Dev. | Frequency in 15 Min Block | | Freq Dev Index (% of Time) |
|---|---|---|---|---|---|---|---|---|---|
| Maximum | | Minimum | | Frequency | Variation | | MAX | MIN | |
| Freq | Time | Freq | Time | Hz | Index | | (Hz) | (Hz) | |
| 50.17 | 19.02 | 49.78 | 13.49 | 49.99 | 0.040 | 0.062 | 50.17 | 49.94 | 23.56 |

**VII. Voltage profile 400 kV**

| Station | Voltage Level (kV) | Maximum | | Minimum | | Voltage (in % of Time) | | | | Voltage Deviation Index (% of |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Voltage(KV) | Time | Voltage (KV) | Time | <380 kV | <390 kV | >420 kV | >430 kV | |
| Rihand | 400 | 409 | 21:08 | 399 | 12:10 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 |
| Gorakhpur | 400 | 420 | 8:03 | 402 | 14:26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bareilly(PG)400kV | 400 | 0 | 0:00 | 0 | 0:00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Kanpur | 400 | 413 | 18:25 | 397 | 0:30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dadri | 400 | 414 | 5:59 | 396 | 14:25 | 5.0 | 5.0 | 0.0 | 0.0 | 5.0 |
| Ballabhgarh | 400 | 420 | 6:02 | 398 | 14:25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bawana | 400 | 416 | 6:05 | 399 | 14:25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bassi | 400 | 420 | 18:26 | 395 | 22:35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hissar | 400 | 411 | 6:09 | 396 | 0:03 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Moga | 400 | 410 | 18:23 | 395 | 10:39 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Abdullapur | 400 | 416 | 6:03 | 401 | 19:26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Nalagarh | 400 | 420 | 6:09 | 403 | 9:15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Kishenpur | 400 | 411 | 18:01 | 396 | 10:36 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wagoora | 400 | 406 | 18:00 | 379 | 20:37 | 0.3 | 22.5 | 0.0 | 0.0 | 0.3 |
| Amritsar | 400 | 416 | 18:27 | 164 | 6:07 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Kashipur | 400 | 416 | 18:23 | 407 | 12:44 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hamirpur | 400 | 410 | 6:02 | 396 | 9:16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rishikesh | 400 | 401 | 18:33 | 376 | 12:25 | 10.4 | 78.8 | 0.0 | 0.0 | 10.4 |

**VIII. Voltage profile 765 kV**

| Station | Voltage Level (kV) | Maximum | | Minimum | | Voltage (in % of Time) | | | | Voltage Deviation Index (% of |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Voltage(KV) | Time | Voltage (KV) | Time | <728 kV | <742 kV | >800 kV | >820 kV | |
| Fatehpur | 765 | 769 | 18:26 | 737 | 0:13 | 0.0 | 9.5 | 0.0 | 0.0 | 0.0 |
| Balia | 765 | 788 | 18:29 | 751 | 0:06 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Moga | 765 | 787 | 18:26 | 757 | 22:31 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Agra | 765 | 785 | 18:29 | 748 | 0:10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhiwani | 765 | 790 | 18:29 | 759 | 14:25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unnao | 765 | 769 | 18:26 | 734 | 0:31 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 |
| Lucknow | 765 | 784 | 18:32 | 751 | 0:29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Meerut | 765 | 794 | 18:30 | 759 | 14:25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Jhatikara | 765 | 787 | 6:01 | 750 | 14:27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bareilly 765 kV | 765 | 779 | 18:30 | 745 | 13:45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Anta | 765 | 783 | 18:11 | 758 | 13:36 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Phagi | 765 | 788 | 18:11 | 751 | 13:42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Note :** "0" in Max / Min Col -> Telemetry Outage

**IX. Reservior Parameters:**

| Name of Reservior | Parameters | | Present Parameters | | Last Year | | Last day | |
|---|---|---|---|---|---|---|---|---|
| | FRL (m) | MDDL (m) | Level (m) | Energy (MU) | Level (m) | Energy (MU) | Inflow ($m^3$/s) | Usage ($m^3$/s) |
| Bhakra | 513.59 | 445.62 | 475.41 | 361.66 | 486.23 | 619.14 | 627.56 | 551.61 |
| Pong | 426.72 | 384.05 | 392.92 | 93.10 | 405.35 | 352.07 | 75.27 | 191.56 |
| Tehri | 829.79 | 740.04 | 741.65 | 7.01 | 756.55 | 95.00 | 137.25 | 112.00 |
| Koteshwar | 612.50 | 598.50 | 605.67 | 2.88 | 609.70 | 4.44 | 112.00 | 126.81 |
| Chamera-I | 760.00 | 748.75 | 753.65 | 0.00 | 0.00 | 0.00 | 246.13 | 353.44 |
| Rihand | 268.22 | 252.98 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| RPS | 352.80 | 343.81 | 1140.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jawahar Sagar | 298.70 | 295.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| RSD | 527.91 | 487.91 | 501.50 | 3.20 | 523.73 | 10.71 | 233.18 | 145.56 |

*** NA: Not Available**

**X(A). Short-Term Open Access Details:**

| State | Off- Peak Hours (03:00 Hrs) | | | Peak Hours (20:00 Hrs) | | | Day Energy (MU) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Bilateral (MW) | IEX (MW) | PXIL (MW) | Bilateral (MW) | IEX (MW) | PXIL (MW) | Bilateral (MU) | IEX / PXIL (MU) | Total (MU) |
| **Punjab** | -28 | 332 | 0 | -433 | 263 | 0 | -2.30 | 8.12 | 5.82 |
| **Delhi** | 402 | -73 | 0 | 451 | 5 | 0 | 11.43 | 0.47 | 11.91 |
| **Haryana** | 227 | 322 | 0 | 211 | 313 | 0 | 6.01 | 6.67 | 12.68 |
| **HP** | -587 | -252 | 0 | -229 | -954 | 0 | -7.33 | -17.13 | -24.46 |
| **J&K** | -581 | -65 | 0 | -530 | -101 | 0 | -13.45 | -2.76 | -16.21 |
| **CHD** | 0 | 0 | 0 | 0 | 0 | 0 | 0.35 | 0.00 | 0.35 |
| **Rajasthan** | -389 | 440 | 0 | -389 | 520 | 0 | -9.34 | 12.66 | 3.31 |
| **UP** | 1578 | 0 | 0 | 1127 | 0 | 0 | 28.58 | 0.00 | 28.58 |
| **Uttarakhand** | 106 | 185 | 0 | 106 | 258 | 0 | 2.54 | 3.93 | 6.46 |
| **Total** | **728** | **889** | **0** | **314** | **303** | **0** | **16.49** | **11.96** | **28.45** |

**X(B). Short-Term Open Access Details:**

| State | Bilateral (MW) | | IEX (MW) | | PXIL (MW) | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum |
| **Punjab** | -28 | -433 | 365 | 260 | 0 | 0 |
| **Delhi** | 579 | 402 | 417 | -467 | 0 | 0 |
| **Haryana** | 358 | 211 | 366 | 61 | 0 | 0 |
| **HP** | -229 | -587 | -239 | -1135 | 0 | 0 |
| **J&K** | -480 | -626 | -65 | -152 | 0 | 0 |
| **CHD** | 44 | 0 | 0 | 0 | 0 | 0 |
| **Rajasthan** | -389 | -389 | 543 | 334 | 0 | 0 |
| **UP** | 1589 | 1084 | 0 | 0 | 0 | 0 |
| **Uttarakhand** | 106 | 106 | 328 | 60 | 0 | 0 |

**XI. System Reliability Indices(Violation of TTC and ATC):**

(i)%age of times N-1 Criteria was violated in the inter - regional corridors

| | |
|---|---|
| **WR** | **0.00%** |
| **ER** | **0.00%** |
| **Simultaneous** | **0.00%** |

(ii)%age of times ATC violated on the inter-regional corridors

| | |
|---|---|
| **WR** | **0.00%** |
| **ER** | **0.00%** |
| **Simultaneous** | **0.00%** |

(iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)

| | |
|---|---|
| **Rihand - Dadri** | **0.00%** |

**XII.System Constraints:**

**XIII. Grid Disturbance / Any Other Significant Event:**

**XIV. Weather Conditions For 13.05.2016 :**
Normal

**XV. Synchronisation of new generating units :**

**XVI. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XVII. Tripping of lines in pooling stations :**

**XVIII. Complete generation loss in a generating station :**

Note: Data(regarding drawal,generation, shortage , inter-regional flows and reservoir levels)of the constituents filled in the report are as per last furnished data by the respective state/constituent to NRLDC.

**Report for : 13.05.2016**

**पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**