# 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 11.01.2016**
**Date of Reporting : 12.01.2016**

**I. Regional Availability/Demand:**

| Evening Peak (19:00 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 |
| 40086 | 1691 | 41777 | 50.05 | 29596 | 464 | 30059 | 50.11 | 849.4 | 44.32 |

* 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 | 46.78 | 10.78 | | 57.56 | 46.78 | 48.63 | 1.85 | 106.19 | 0.00 |
| Haryana | 44.30 | 0.31 | | 44.60 | 72.18 | 70.64 | -1.54 | 115.24 | 0.00 |
| Rajasthan | 133.27 | 4.74 | 6.67 | 144.67 | 76.03 | 79.22 | 3.19 | 223.90 | 0.00 |
| Delhi | 16.24 | | | 16.24 | 45.25 | 44.36 | -0.89 | 60.60 | 0.01 |
| UP | 124.20 | 4.80 | | 129.00 | 103.15 | 105.61 | 2.45 | 234.61 | 33.59 |
| Uttarakhand | | 10.30 | | 10.30 | 24.40 | 25.71 | 1.31 | 36.01 | 0.58 |
| HP | | 3.88 | | 3.88 | 22.07 | 22.45 | 0.38 | 26.33 | 0.02 |
| J & K | | 6.30 | 0.00 | 6.30 | 36.03 | 36.64 | 0.62 | 42.94 | 10.13 |
| Chandigarh | | | | 0.00 | 3.62 | 3.62 | 0.27 | 3.62 | 0.00 |
| | | | | | | | | | |
| **Total** | **364.78** | **41.11** | **6.67** | **412.56** | **429.50** | **436.87** | **7.64** | **849.43** | **44.32** |

* 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 (19:00 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 | 4595 | 0 | -142 | -489 | 3237 | 0 | 135 | 47 | 5334 |
| Haryana | 6462 | 0 | 96 | -329 | 3161 | 0 | 162 | -309 | 6462 |
| Rajasthan | 9625 | 0 | 55 | 667 | 8368 | 0 | 41 | 689 | 10318 |
| Delhi | 3067 | 0 | -173 | -124 | 1447 | 0 | 110 | -964 | 3604 |
| UP | 10892 | 1100 | 29 | 94 | 9810 | 180 | 87 | 102 | 10892 |
| Uttarakhand | 1835 | 75 | 22 | 596 | 1124 | 0 | 33 | 279 | 1908 |
| HP | 1353 | 0 | -16 | 368 | 752 | 0 | 90 | 310 | 1417 |
| J&K | 2065 | 516 | 79 | 729 | 1607 | 284 | -8 | 703 | 2065 |
| Chandigarh | 192 | 0 | -16 | 0 | 90 | 0 | 6 | -31 | 218 |
| **Total** | **40086** | **1691** | **-66** | **1512** | **29596** | **464** | **656** | **826** | **40086** |

* 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 | 1704 | 1991 | 1476 | 40.34 | 1681 | 40.38 | -0.05 |
| | Rihand I STPS (2*500) | 1000 | 878 | 905 | 625 | 18.38 | 766 | 18.89 | -0.51 |
| | Rihand II STPS (2*500) | 1000 | 964 | 1034 | 634 | 20.02 | 834 | 20.72 | -0.69 |
| | Rihand III STPS (2*500) | 1000 | 974 | 1000 | 824 | 20.61 | 859 | 21.44 | -0.82 |
| | Dadri I STPS (4*210) | 840 | 815 | 447 | 435 | 10.03 | 418 | 10.60 | -0.57 |
| | Dadri II STPS (2*490) | 980 | 980 | 468 | 339 | 9.07 | 378 | 9.79 | -0.72 |
| | Unchahar I TPS (2*210) | 420 | 406 | 325 | 308 | 7.58 | 316 | 8.32 | -0.74 |
| | Unchahar II TPS (2*210) | 420 | 404 | 293 | 271 | 6.99 | 291 | 7.73 | -0.73 |
| | Unchahar III TPS (1*220) | 210 | 202 | 140 | 135 | 3.42 | 143 | 3.88 | -0.46 |
| | ISTPP (Jhajjhar) (3*500) | 1500 | 1500 | 843 | 634 | 15.43 | 643 | 15.80 | -0.37 |
| | Dadri GPS (4*130.19+2*154.51) | 830 | 813 | 205 | 182 | 4.37 | 182 | 4.56 | -0.19 |
| | Anta GPS (3*88.71+1*153.2) | 419 | 411 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Auraiya GPS (4*111.19+2*109.30) | 663 | 492 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Dadri Solar | 5 | 1 | 0 | 0 | 0.02 | 1 | 0.02 | 0.00 |
| | Unchahar Solar | 10 | 1 | 0 | 0 | 0.03 | 1 | 0.03 | 0.00 |
| | Singrauli Solar | 15 | 2 | 0 | 0 | 0.05 | 2 | 0.04 | 0.01 |
| | KHEP | 800 | 870 | 849 | 0 | 2.72 | 113 | 2.61 | 0.11 |
| | **Sub Total (A)** | **12112** | **11417** | **8500** | **5863** | **159** | **6628** | **165** | **-6** |
| B. NPC | NAPS (2*220) | 440 | 408 | 443 | 450 | 9.86 | 411 | 9.79 | 0.06 |
| | RAPS- B (2*220) | 440 | 403 | 444 | 443 | 9.63 | 401 | 9.67 | -0.05 |
| | RAPS- C (2*220) | 440 | 420 | 456 | 457 | 9.88 | 412 | 10.08 | -0.20 |
| | **Sub Total (B)** | **1320** | **1231** | **1343** | **1350** | **29.37** | **1224** | **29.54** | **-0.18** |
| C. NHPC | Chamera I HPS (3*180) | 540 | 540 | 490 | 0 | 1.84 | 77 | 1.62 | 0.22 |
| | Chamera II HPS (3*100) | 300 | 300 | 303 | 0 | 1.26 | 53 | 1.14 | 0.12 |
| | Chamera III HPS (3*77) | 231 | 154 | 151 | 0 | 0.68 | 28 | 0.60 | 0.08 |
| | Bairasuil HPS(3*60) | 180 | 124 | 126 | 0 | 0.54 | 23 | 0.50 | 0.04 |
| | Salal-HPS (6*115) | 690 | 156 | 230 | 115 | 4.49 | 187 | 3.71 | 0.78 |
| | Tanakpur-HPS (3*40) | 94 | 19 | 31 | 18 | 0.52 | 22 | 0.46 | 0.06 |
| | Uri-I HPS (4*120) | 480 | 218 | 323 | 154 | 5.42 | 226 | 5.21 | 0.21 |
| | Uri-II HPS (4*60) | 240 | 132 | 106 | 120 | 3.29 | 137 | 3.17 | 0.12 |
| | Dhauliganga-HPS (4*70) | 280 | 140 | 139 | 0 | 0.83 | 35 | 0.77 | 0.06 |
| | Dulhasti-HPS (3*130) | 390 | 258 | 269 | 0 | 2.92 | 121 | 2.80 | 0.12 |
| | Sewa-II HPS (3*40) | 120 | 119 | 0 | 0 | 0.37 | 16 | 0.37 | 0.01 |
| | Parbati 3 (4*130) | 520 | 0 | 0 | 0 | 0.81 | 34 | 0.00 | 0.81 |
| | **Sub Total (C )** | **4065** | **2160** | **2168** | **407** | **23** | **957** | **20** | **3** |
| D.SJVNL | NJPC (6*250) | 1500 | 1125 | 1315 | 0 | 7.41 | 309 | 7.28 | 0.13 |
| | Rampur HEP (6*68.67) | 412 | 280 | 299 | 0 | 2.09 | 87 | 1.99 | 0.10 |
| | **Sub Total (D)** | **1912** | **1405** | **1614** | **0** | **9.49** | **396** | **9.27** | **0.23** |
| E. THDC | Tehri HPS (4*250) | 1000 | 940 | 929 | 0 | 8.84 | 368 | 8.80 | 0.04 |
| | Koteshwar HPS (4*100) | 400 | 130 | 400 | 89 | 3.15 | 131 | 3.13 | 0.02 |
| | **Sub Total (E)** | **1400** | **1070** | **1329** | **89** | **11.99** | **499** | **11.93** | **0.06** |
| F. BBMB | Bhakra HPS (2*108+3*126+5*157) | 1379 | 611 | 1096 | 373 | 15.00 | 625 | 14.66 | 0.34 |
| | Dehar HPS (6*165) | 990 | 118 | 495 | 0 | 2.92 | 122 | 2.84 | 0.08 |
| | Pong HPS (6*66) | 396 | 229 | 384 | 66 | 5.54 | 231 | 5.49 | 0.05 |
| | **Sub Total (F)** | **2765** | **958** | **1975** | **439** | **23.46** | **977** | **22.99** | **0.47** |
| G. IPP(s)/JV(s) | ALLAIN DUHANGAN HPS(IPP) (2*96) | 192 | 0 | 101 | 0 | 0.49 | 20 | 0.47 | 0.02 |
| | KARCHAM WANGTOO HPS(IPP) (4*250 | 1000 | 0 | 630 | 0 | 3.86 | 161 | 3.84 | 0.02 |
| | Malana Stg-II HPS (2*50) | 100 | 0 | 0 | 0 | 0.22 | 9 | 0.19 | 0.02 |
| | Shree Cement TPS (2*150) | 300 | 0 | 293 | 275 | 6.97 | 290 | 7.05 | -0.08 |
| | Budhil HPS(IPP) (2*35) | 70 | 0 | 38 | 0 | 0.14 | 6 | 0.14 | 0.00 |
| | Sub Total (G ) | 1662 | 0 | 1062 | 275 | 11.68 | 487 | 11.69 | -0.01 |
| **H. Total Regional Entities (A-G)** | | **25237** | **18241** | **17990** | **8424** | **268.01** | **11167** | **270.56** | **-2.56** |

| I. State Entities | Station | Effective Installed Capacity (MW) | Peak MW | Off Peak MW | Energy(MU) | Average(Sent out MW) |
|---|---|---|---|---|---|---|
| **Punjab** | Guru Gobind Singh TPS (Ropar) (6*210) | 1260 | 210 | 160 | 4.08 | 170 |
| | Guru Nanak Dev TPS(Bhatinda) (2*110+2*120) | 460 | 110 | 100 | 2.31 | 96 |
| | Guru Hargobind Singh TPS(L.mbt) (2*210+2*250) | 920 | 246 | 204 | 5.13 | 214 |
| | Goindwal(GVK) | | 0 | 0 | 0.00 | 0 |
| | Rajpura (2*700) | 1400 | 1319 | 706 | 24.71 | 1030 |
| | Talwandi Saboo (2*660) | 1320 | 340 | 338 | 10.55 | 439 |
| | **Thermal (Total)** | **5360** | **2225** | **1508** | **46.78** | **1949** |
| | Total Hydro | 1000 | 436 | 428 | 10.78 | 449 |
| | **Total Punjab** | **6360** | **2661** | **1936** | **57.56** | **2398** |
| **Haryana** | Panipat TPS (4*110+2*210+2*250) | 1367 | 0 | 0 | 0.00 | 0 |
| | DCRTPP (Yamuna nagar) (2*300) | 600 | 552 | 229 | 10.97 | 457 |
| | Faridabad GPS (NTPC) | 432 | 0 | 0 | 0.00 | 0 |
| | RGTPP (khedar) (IPP) (2*600) | 1200 | 1108 | 793 | 22.85 | 952 |
| | Magnum Diesel (IPP) | 25 | 0 | 0 | 0.00 | 0 |
| | Jhajjar(CLP) (2*660) | 1320 | 560 | 374 | 10.47 | 436 |
| | **Thermal (Total)** | **4944** | **2220** | **1396** | **44.30** | **1846** |
| | Total Hydro | 62 | 10 | 10 | 0.31 | 13 |
| | **Total Haryana** | **5006** | **2230** | **1406** | **44.60** | **1859** |
| **Rajasthan** | kota TPS (2*110+2*195+3*210) | 1240 | 863 | 858 | 21.50 | 896 |
| | suratgarh TPS (6*250) | 1500 | 579 | 387 | 13.69 | 570 |
| | Chabra TPS (4*250) | 1000 | 575 | 601 | 15.17 | 632 |
| | Dholpur GPS (3*110) | 330 | 0 | 0 | 0.00 | 0 |
| | Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50) | 271 | 192 | 195 | 4.85 | 202 |
| | RAPS A (NPC) (1*100+1*200) | 300 | 165 | 164 | 4.06 | 169 |
| | Barsingsar (NLC) (2*125) | 250 | 91 | 91 | 1.99 | 83 |
| | Giral LTPS (2*125) | 250 | 56 | 56 | 1.10 | 46 |
| | Rajwest LTPS (IPP) (8*135) | 1080 | 741 | 729 | 17.20 | 717 |
| | VS LIGNITE LTPS (IPP) (1*135) | 135 | 0 | 0 | 0.00 | 0 |
| | Kalisindh Thermal(2*600) | 1200 | 1078 | 1089 | 25.28 | 1053 |
| | Kawai(Adani) (2*660) | 1320 | 1193 | 1190 | 28.44 | 1185 |
| | **Thermal (Total)** | **8876** | **5533** | **5360** | **133** | **5553** |
| | Total Hydro | 550 | 197 | 210 | 4.74 | 198 |
| | Wind power | 3214 | 79 | 46 | 3.39 | 141 |
| | Biomass | 99 | 18 | 18 | 0.44 | 18 |
| | Solar | 730 | 0 | 0 | 2.84 | 118 |
| | Renewable/Others (Total) | 4043 | 97 | 64 | 6.67 | 278 |
| | **Total Rajasthan** | **13469** | **5827** | **5634** | **144.67** | **6028** |
| **UP** | Anpara TPS (3*210+2*500) | 1630 | 932 | 1400 | 27.30 | 1138 |
| | Obra TPS (2*50+2*94+5*200) | 1194 | 447 | 474 | 10.90 | 454 |
| | Paricha TPS (2*110+2*220+2*250) | 1140 | 917 | 820 | 20.20 | 842 |
| | Panki TPS (2*105) | 210 | 0 | 0 | 0.00 | 0 |
| | Harduaganj TPS (1*60+1*105+2*250) | 665 | 320 | 327 | 7.50 | 313 |
| | Tanda TPS (NTPC) (4*110) | 440 | 391 | 370 | 8.80 | 367 |
| | Roza TPS (IPP) (4*300) | 1200 | 275 | 194 | 5.80 | 242 |
| | Anpara-C (IPP) (2*600) | 1200 | 1080 | 1071 | 24.50 | 1021 |
| | Bajaj Energy Pvt.Ltd(IPP) TPS (10*45) | 450 | 0 | 0 | 0.00 | 0 |
| | Anpara-D(1*500) | 500 | 0 | 0 | 0.00 | 0 |
| | Lalitpur TPS(2*660) | 1320 | 0 | 0 | 0.00 | 0 |
| | Bara(2*660) | 1320 | 0 | 0 | 0.00 | 0 |
| | **Thermal (Total)** | **11269** | **4362** | **4656** | **105** | **4375** |
| | Vishnuparyag HPS (IPP)(4*110) | 440 | 76 | 72 | 1.80 | 75 |
| | Alaknanada(4*82.5) | 330 | 55 | 53 | 1.00 | 42 |
| | Other Hydro | 527 | 37 | 60 | 2.00 | 83 |
| | Cogeneration | 981 | 800 | 800 | 19.20 | 800 |
| | **Total UP** | **13547** | **5330** | **5641** | **129** | **5375** |
| **Uttarakhand** | Total Hydro | 1398 | 631 | 363 | 10.30 | 429 |
| | **Total Uttarakhand** | **1398** | **631** | **363** | **10.30** | **429** |
| **Delhi** | Rajghat TPS (2*67.5) | 135 | 0 | 0 | -0.04 | -2 |
| | Delhi Gas Turbine (6x30 + 3x34) | 282 | 70 | 28 | 0.81 | 34 |
| | Pragati Gas Turbine (2x104+ 1x122) | 330 | 265 | 140 | 5.58 | 233 |
| | Rithala GPS (3*36) | 95 | 0 | 0 | 0.00 | 0 |
| | Bawana GPS (4*216+2*253) | 1370 | 250 | 252 | 6.01 | 250 |
| | Badarpur TPS (NTPC) (3*95+2*210) | 705 | 165 | 165 | 3.89 | 162 |
| | Thermal (Total) | 2917 | 750 | 585 | 16.24 | 677 |
| | **Total Delhi** | **2917** | **750** | **585** | **16.24** | **677** |
| **HP** | Baspa HPS (IPP) (3*100) | 300 | 106 | 0 | 1.01 | 42 |
| | Malana HPS (IPP) (2*43) | 86 | 45 | 0 | 0.23 | 10 |
| | Other Hydro | 878 | 113 | 86 | 2.64 | 110 |
| | **Total HP** | **1264** | **264** | **86** | **3.88** | **162** |
| **J & K** | Baglihar HPS (IPP) (3*150) | 450 | 260 | 150 | 4.26 | 178 |
| | Other Hydro/IPP | 560 | 110 | 72 | 2.04 | 85 |
| | Gas/Diesel/Others | 190 | 0 | 0 | 0.00 | 0 |
| | **Total J & K** | **1200** | **370** | **222** | **6.30** | 263 |
| **Total State Control Area Generation** | | **45161** | **18063** | **15873** | **412.56** | **17190** |
| **J. Net Inter Regional Exchange** [Import (+ve)/Export (-ve)] | | | **8151.7** | **6636.81** | **186.83** | **7784** |
| **Total Regional Availability(Gross)** | | **70398** | **44205** | **30933** | **867.39** | **36141** |

**IV. Total Hydro Generation:**

| | | | | | |
|---|---|---|---|---|---|
| **Regional Entities Hydro** | **12234** | **8665** | **935** | **75.18** | **3132** |
| **State Control Area Hydro** | **6581** | **2076** | **1504** | **41** | **1713** |
| **Total Regional Hydro** | **18815** | **10741** | **2439** | **116.29** | **4845** |

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

| Element | Peak(19:00 Hrs) | Off Peak(03:00 Hrs) | Maximum Interchange (MW) | | Energy (MU) | | Net Energy |
|---|---|---|---|---|---|---|---|
| | MW | MW | Import | Export | Import | Export | MU |
| Vindhychal(HVDC B/B) | 50 | 150 | 200 | 50 | 1.69 | 0.23 | 1.45 |
| 765 KV Gwalior-Agra (D/C) | 2783 | 2563 | 3160 | 0 | 69.35 | 0.00 | 69.35 |
| 400 KV Zerda-Kankroli | -45 | -90 | 47 | 104 | 0.00 | 0.61 | -0.61 |
| 400 KV Zerda-Bhinmal | 62 | 9 | 173 | 54 | 1.86 | 0.00 | 1.86 |
| 220 KV Auraiya-Malanpur | -40 | -17 | 0 | 46 | 0.00 | 0.42 | -0.42 |
| 220 KV Badod-Kota/Morak | 27 | 12 | 37 | 0 | 0.40 | 0.00 | 0.40 |
| Mundra-Mohindergarh(HVDC Bipole) | 2502 | 1698 | 2514 | 0 | 55.09 | 0.00 | 55.09 |
| 400 KV Vindhyachal - Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 kV Phagi-Gwalior (D/C) | 913 | 821 | 1153 | 0 | 23.90 | 0.00 | 23.90 |
| **Sub Total WR** | **6252** | **5146** | | | **152.28** | **1.26** | **151.01** |
| Pusauli Bypass/HVDC | 400 | 100 | 400 | 0 | 4.05 | 0.00 | 4.05 |
| 400 KV MZP- GKP (D/C) | -268 | -252 | 0 | 782 | 0.00 | 10.62 | -10.62 |
| 400 KV Patna-Balia(D/C) X 2 | 783 | 546 | 810 | 0 | 15.43 | 0.00 | 15.43 |
| 400 KV B'Sharif-Balia (D/C) | -40 | -100 | 0 | 319 | 0.00 | 2.86 | -2.86 |
| 765 KV Gaya-Balia | 181 | 213 | 246 | 0 | 2.34 | 0.00 | 2.34 |
| 765 KV Gaya-Fatehpur | 62 | 80 | 348 | 0 | 3.72 | 0.00 | 3.72 |
| 220 KV Pusauli-Sahupuri | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 132 KV K'nasa-Sahupuri | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 132 KV Son Ngr-Rihand | -20 | -18 | 0 | 29 | 0.00 | 0.54 | -0.54 |
| 132 KV Garhwa-Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 KV Sasaram - Fatehpur | -235 | -82 | 164 | 256 | 0.00 | 1.25 | -1.25 |
| 400 KV Barh -GKP (D/C) | 536 | 504 | 634 | 0 | 13.12 | 0.00 | 13.12 |
| **Sub Total ER** | **1400** | **991** | | | **38.65** | **15.27** | **23.38** |
| +/- 800 KV BiswanathCharialli-Agra | 500 | 500 | 500 | 0 | 12.43 | 0.00 | 12.43 |
| **Sub Total NER** | **500** | **500** | | | **12.43** | **0.00** | **12.43** |
| **Total IR Exch** | **8152** | **6637** | | | **203.36** | **16.53** | **186.83** |

**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 |
| 28.58 | 0.17 | 28.75 | 1.62 | -4.94 | 8.99 | 29.46 | 4.93 | -4.93 |

| Total IR Schedule (MU) | | | Total IR Actual (MU) | | | Net IR UI (MU) | | |
|---|---|---|---|---|---|---|---|---|
| Through ER | Through WR Inclds Mndra | Total | Through ER(including NER) | Through WR | Total | Through ER(including NER) | Through WR | Total |
| 44.29 | 140.03 | 184.32 | 35.81 | 151.01 | 186.83 | -8.47 | 10.98 | 2.51 |

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

| Element | Peak(19:00 Hrs) | Off Peak(03:00 Hrs) | Maximum Interchange (MW) | | Energy (MU) | | Net Energy |
|---|---|---|---|---|---|---|---|
| | MW | MW | Import | Export | Import | Export | MU |
| 132 KV Tanakpur - Mahendarnagar | -26 | -35 | 0 | 35 | 0 | 1 | -0.75 |

**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 | 0.08 | 4.07 | 36.15 | 66.27 | 21.33 | 8.28 | 0.79 | NA |

| <---------- Frequency (Hz) ----------> | | | | Average Frequency | Frequency Variation Index | Std. Dev. | Frequency in 15 Min Block | | Freq Dev Index (% of Time) |
|---|---|---|---|---|---|---|---|---|---|
| Maximum | | Minimum | | | | | MAX | MIN | |
| Freq | Time | Freq | Time | Hz | | | (Hz) | (Hz) | |
| 50.30 | 21.59 | 49.74 | 18.10 | 50.02 | 0.044 | 0.064 | 0.00 | 0.00 | 33.73 |

**VII. Voltage profile 400 kV**

| Station | Voltage Level (kV) | Maximum | | Minimum | | Voltage (in % of Time) | | | | Voltage Deviation Index (% of Time) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Voltage(KV) | Time | Voltage (KV) | Time | <380 kV | <390 kV | >420 kV | >430 kV | |
| Rihand | 400 | 406 | 05:02 | 399 | 11:21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gorakhpur | 400 | 426 | 05:37 | 404 | 22:54 | 0.0 | 0.0 | 12.5 | 0.0 | 12.5 |
| Bareilly(PG)400kV | 400 | 421 | 04:31 | 399 | 14:40 | 0.0 | 0.0 | 0.4 | 0.0 | 0.4 |
| Kanpur | 400 | 411 | 05:02 | 401 | 11:20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dadri | 400 | 426 | 04:00 | 401 | 11:19 | 0.0 | 0.0 | 27.9 | 0.0 | 27.9 |
| Ballabhgarh | 400 | 431 | 04:04 | 404 | 11:21 | 0.0 | 0.0 | 37.7 | 0.3 | 37.7 |
| Bawana | 400 | 428 | 04:01 | 404 | 11:19 | 0.0 | 0.0 | 34.2 | 0.0 | 34.2 |
| Bassi | 400 | 425 | 20:37 | 391 | 08:55 | 0.0 | 0.0 | 6.7 | 0.0 | 6.7 |
| Hissar | 400 | 422 | 21:42 | 396 | 11:18 | 0.0 | 0.0 | 0.9 | 0.0 | 0.9 |
| Moga | 400 | 421 | 21:45 | 398 | 11:20 | 0.0 | 0.0 | 0.5 | 0.0 | 0.5 |
| Abdullapur | 400 | 424 | 20:56 | 403 | 11:18 | 0.0 | 0.0 | 16.6 | 0.0 | 16.6 |
| Nalagarh | 400 | 434 | 01:43 | 406 | 11:21 | 0.0 | 0.0 | 45.1 | 20.8 | 45.1 |
| Kishenpur | 400 | 429 | 00:46 | 393 | 11:22 | 0.0 | 0.0 | 9.8 | 0.0 | 9.8 |
| Wagoora | 400 | 406 | 00:45 | 366 | 11:22 | 68.5 | 81.5 | 0.0 | 0.0 | 68.5 |
| Amritsar | 400 | 430 | 00:45 | 404 | 11:24 | 0.0 | 0.0 | 41.3 | 0.0 | 41.3 |
| Kashipur | 400 | 422 | 04:04 | 412 | 11:19 | 0.0 | 0.0 | 5.7 | 0.0 | 5.7 |
| Hamirpur | 400 | 425 | 21:50 | 403 | 14:13 | 0.0 | 0.0 | 29.2 | 0.0 | 29.2 |
| Rishikesh | 400 | 422 | 05:02 | 397 | 14:35 | 0.0 | 0.0 | 0.8 | 0.0 | 0.8 |

**VIII. Voltage profile 765 kV**

| Station | Voltage Level (kV) | Maximum | | Minimum | | Voltage (in % of Time) | | | | Voltage Deviation Index (% of Time) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Voltage(KV) | Time | Voltage (KV) | Time | <728 kV | <742 kV | >800 kV | >820 kV | |
| Fatehpur | 765 | 770 | 05:02 | 736 | 22:09 | 0.0 | 3.9 | 0.0 | 0.0 | 0.0 |
| Balia | 765 | 778 | 05:02 | 740 | 22:09 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 |
| Moga | 765 | 804 | 21:43 | 758 | 11:21 | 0.0 | 0.0 | 1.4 | 0.0 | 1.4 |
| Agra | 765 | 790 | 21:43 | 745 | 11:21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhiwani | 765 | 804 | 21:39 | 761 | 11:36 | 0.0 | 0.0 | 1.8 | 0.0 | 1.8 |
| Unnao | 765 | 774 | 05:03 | 738 | 11:19 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 |
| Lucknow | 765 | 793 | 05:02 | 753 | 11:20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Meerut | 765 | 808 | 21:42 | 761 | 11:19 | 0.0 | 0.0 | 4.3 | 0.0 | 4.3 |
| Jhatikara | 765 | 808 | 21:42 | 762 | 11:21 | 0.0 | 0.0 | 23.6 | 0.0 | 23.6 |
| Bareilly 765 kV | 765 | 793 | 05:02 | 408 | 15:31 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Anta | 765 | 785 | 21:45 | 756 | 08:56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Phagi | 765 | 793 | 21:44 | 743 | 09:34 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**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 | 499.05 | 1053.16 | 495.61 | 926.03 | 171.32 | 454.26 |
| Pong | 426.72 | 384.05 | 409.22 | 474.29 | 403.86 | 312.39 | 83.02 | 367.27 |
| Tehri | 829.79 | 740.04 | 797.70 | 571.54 | 806.30 | 725.00 | 58.91 | 234.00 |
| Koteshwar | 612.50 | 598.50 | 610.69 | 4.95 | 608.83 | 4.21 | 234.00 | 207.22 |
| Chamera-I | 760.00 | 748.75 | 758.56 | 0.00 | 0.00 | 0.00 | 52.01 | 49.37 |
| Rihand | 268.22 | 252.98 | 848.70 | 234.80 | 850.70 | 266.70 | 0.00 | 0.00 |
| RPS | 352.80 | 343.81 | 0.00 | 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 | 496.64 | 3.38 | 504.65 | 2.18 | 57.60 | 142.82 |

*** NA: Not Available**

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

| State | Off- Peak Hours (03:00 Hrs) | | | Peak Hours (19:00 Hrs) | | | Day Energy (MU) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Bilateral (MW) | IEX (MW) | PXIL (MW) | Bilateral (MW) | IEX (MW) | PXIL (MW) | Bilateral (MU) | IEX / PXIL (MU) | Total (MU) |
| Punjab | -274 | 321 | 0 | -732 | 243 | 0 | -11.81 | 6.50 | -5.31 |
| Delhi | -840 | -124 | 0 | -544 | 420 | 0 | -13.87 | 7.94 | -5.94 |
| Haryana | -532 | 223 | 0 | -588 | 259 | 0 | -13.58 | 6.05 | -7.53 |
| HP | 88 | 222 | 0 | 150 | 218 | 0 | 8.85 | 1.19 | 10.04 |
| J&K | 713 | -10 | 0 | 702 | 27 | 0 | 15.94 | -0.73 | 15.21 |
| CHD | -31 | 0 | 0 | 0 | 0 | 0 | -0.24 | 0.14 | -0.10 |
| Rajasthan | -7 | 693 | 3 | -7 | 672 | 3 | 9.03 | 15.39 | 24.42 |
| UP | 102 | 0 | 0 | 94 | 0 | 0 | -2.39 | 0.00 | -2.39 |
| Uttarakhand | 193 | 86 | 0 | 193 | 403 | 0 | 4.74 | 6.43 | 11.17 |
| **Total** | **-588** | **1412** | **3** | **-732** | **2241** | **3** | **-3.34** | **42.91** | **39.57** |

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

| State | Bilateral (MW) | | IEX (MW) | | PXIL (MW) | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum |
| Punjab | -274 | -732 | 321 | 198 | 0 | 0 |
| Delhi | -281 | -870 | 832 | -187 | 0 | 0 |
| Haryana | -507 | -711 | 281 | 92 | 0 | 0 |
| HP | 582 | 88 | 318 | -439 | 0 | 0 |
| J&K | 726 | 562 | 39 | -174 | 0 | 0 |
| CHD | 0 | -31 | 39 | -25 | 0 | 0 |
| Rajasthan | 888 | -7 | 717 | 44 | 3 | 3 |
| UP | 155 | -340 | 0 | 0 | 0 | 0 |
| Uttarakhand | 221 | 193 | 527 | 67 | 0 | 0 |

**XI. System Reliability Indices:**

(i)%age of times N-1 Criteria was violated in the inter - regional corridors
0.00 **%**
(ii)%age of times ATC violated on the inter-regional corridors
0.00 **%**

**XII.System Constraints:**

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

**XIV. Weather Conditions For 11.01.2016 :**

**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 :**

**Report for : 11.01.2016** **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**