# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

**Power Supply Position in Northern Region for 12.02.2017**

**Date of Reporting : 13.02.2017**

**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 |
| 40418 | 520 | 40939 | 49.98 | 29596 | 421 | 30018 | 49.99 | 857.56 | 11.42 |

* 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 (Net MU) | Actual Drawal (Net MU) | UI (Net MU) | Consumption (Net MU) | Shortages * (MU) |
|---|---|---|---|---|---|---|---|---|---|
| | Thermal | Hydro | Renewable/others $ | Total | | | | | |
| **Punjab** | 39.82 | 8.58 | 0.23 | 48.64 | 49.08 | 50.03 | 0.95 | 98.66 | 0.00 |
| **Haryana** | 27.47 | 0.24 | 0.00 | 27.71 | 84.57 | 84.69 | 0.12 | 112.40 | 0.00 |
| **Rajasthan** | 112.15 | 5.07 | 18.73 | 135.94 | 64.59 | 67.63 | 3.04 | 203.57 | 0.73 |
| **Delhi** | 11.31 | | 0.00 | 11.31 | 46.55 | 45.24 | -1.30 | 56.55 | 0.11 |
| **UP** | 183.45 | 4.58 | 0.00 | 188.04 | 97.42 | 95.21 | -2.21 | 283.25 | 0.00 |
| **Uttarakhand** | | 6.79 | 0.00 | 13.77 | 20.42 | 19.54 | -0.89 | 33.31 | 0.00 |
| **HP** | | 6.36 | 1.91 | 6.36 | 18.14 | 18.10 | -0.05 | 24.46 | 0.00 |
| **J & K** | | 6.01 | 0.00 | 6.01 | 37.56 | 36.32 | -1.25 | 42.32 | 10.58 |
| **Chandigarh** | | | | 0.00 | 3.28 | 3.04 | -0.24 | 3.04 | 0.00 |
| **Total** | **374.21** | **37.62** | **20.87** | **437.76** | **421.61** | **419.79** | **-1.82** | **857.56** | 11.42 |

* 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 | | | | Maximum Demand Met (MW) and Time(Hrs) | | Shortage (MW) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Demand Met | Shortage | UI | STOA/PX transaction | Demand Met | Shortage | UI | STOA/PX transaction | | | |
| **Punjab** | 5184 | 0 | -55 | -280 | 3161 | 0 | 2 | -382 | 5184 | 19:00 | 0 |
| **Haryana** | 5586 | 0 | -126 | -218 | 3429 | 0 | 139 | -395 | 6152 | 7:00 | 0 |
| **Rajasthan** | 8484 | 0 | 5 | 285 | 7415 | 0 | 418 | 363 | 9863 | 8:00 | 0 |
| **Delhi** | 2637 | 0 | -203 | -367 | 1383 | 0 | -192 | -790 | 3480 | 12:00 | 0 |
| **UP** | 13538 | 0 | -12 | -236 | 10517 | 0 | -231 | 82 | 13570 | 20:00 | 0 |
| **Uttarakhand** | 1711 | 0 | -36 | 125 | 1187 | 0 | -84 | 316 | 1854 | 8:00 | 0 |
| **HP** | 1039 | 0 | -70 | 146 | 739 | 0 | -46 | 534 | 1305 | 9:00 | 0 |
| **J&K** | 2082 | 520 | 116 | 699 | 1685 | 421 | -11 | 521 | 2082 | 19:00 | 520 |
| **Chandigarh** | 158 | 0 | -12 | -20 | 81 | 0 | -2 | 0 | 186 | 9:00 | 0 |
| **Total** | **40418** | **520** | **-394** | **134** | **29596** | **421** | **-7** | **249** | **40954** | **20:00** | **503** |

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

Diversity is 1.07

**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 | 1690 | 1837 | 1658 | 40.27 | 1678 | 40.13 | 0.14 |
| | Rihand I STPS (2*500) | 1000 | 484 | 482 | 392 | 10.06 | 419 | 10.21 | -0.16 |
| | Rihand II STPS (2*500) | 1000 | 960 | 967 | 216 | 20.45 | 852 | 20.68 | -0.24 |
| | Rihand III STPS (2*500) | 1000 | 965 | 922 | 745 | 20.19 | 841 | 20.58 | -0.40 |
| | Dadri I STPS (4*210) | 840 | 815 | 369 | 302 | 7.21 | 300 | 7.53 | -0.32 |
| | Dadri II STPS (2*490) | 980 | 980 | 400 | 357 | 8.75 | 364 | 9.36 | -0.62 |
| | Unchahar I TPS (2*210) | 420 | 407 | 415 | 293 | 7.08 | 295 | 7.65 | -0.57 |
| | Unchahar II TPS (2*210) | 420 | 405 | 288 | 292 | 6.37 | 265 | 6.84 | -0.47 |
| | Unchahar III TPS (1*210) | 210 | 203 | 152 | 154 | 3.28 | 137 | 3.42 | -0.14 |
| | ISTPP (Jhajjhar) (3*500) | 1500 | 1440 | 673 | 622 | 14.92 | 622 | 15.01 | -0.10 |
| | Dadri GPS (4*130.19+2*154.51) | 830 | 817 | 195 | 212 | 4.66 | 194 | 4.98 | -0.32 |
| | Anta GPS (3*88.71+1*153.2) | 419 | 420 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Auraiya GPS (4*111.19+2*109.30) | 663 | 644 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Dadri Solar(5) | 5 | 1 | 0 | 0 | 0.02 | 1 | 0.02 | 0.00 |
| | Unchahar Solar(10) | 10 | 2 | 0 | 0 | 0.01 | 1 | 0.05 | -0.04 |
| | Singrauli Solar(15) | 15 | 2 | 0 | 0 | 0.00 | 0 | 0.04 | -0.04 |
| | KHEP(4*200) | 800 | 872 | 872 | 655 | 2.58 | 108 | 2.62 | -0.04 |
| | **Sub Total (A)** | **12112** | **11107** | **7572** | **5898** | **146** | **6077** | **149** | **-3.31** |
| **B. NPC** | NAPS (2*220) | 440 | 415 | 453 | 460 | 10.02 | 418 | 9.96 | 0.06 |
| | RAPS- B (2*220) | 440 | 385 | 426 | 431 | 9.22 | 384 | 9.24 | -0.02 |
| | RAPS- C (2*220) | 440 | 410 | 445 | 455 | 9.74 | 406 | 9.84 | -0.10 |
| | **Sub Total (B)** | **1320** | **1210** | **1324** | **1346** | **28.98** | **1208** | **29.04** | **-0.06** |
| **C. NHPC** | Chamera I HPS (3*180) | 540 | 540 | 559 | 0 | 2.65 | 110 | 2.50 | 0.15 |
| | Chamera II HPS (3*100) | 300 | 301 | 309 | 0 | 1.39 | 58 | 1.28 | 0.11 |
| | Chamera III HPS (3*77) | 231 | 0 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Bairasuil HPS(3*60) | 180 | 120 | 125 | 0 | 1.43 | 60 | 1.45 | -0.02 |
| | Salal-HPS (6*115) | 690 | 135 | 340 | 150 | 3.91 | 163 | 3.24 | 0.68 |
| | Tanakpur-HPS (3*31.4) | 94 | 17 | 30 | 18 | 0.49 | 20 | 0.42 | 0.07 |
| | Uri-I HPS (4*120) | 480 | 351 | 351 | 360 | 8.71 | 363 | 8.43 | 0.29 |
| | Uri-II HPS (4*60) | 240 | 184 | 181 | 187 | 4.43 | 184 | 4.43 | 0.00 |
| | Dhauliganga-HPS (4*70) | 280 | 140 | 146 | 0 | 0.67 | 28 | 0.61 | 0.06 |
| | Dulhasti-HPS (3*130) | 390 | 387 | 395 | 0 | 2.88 | 120 | 2.70 | 0.18 |
| | Sewa-II HPS (3*40) | 120 | 119 | 125 | 82 | 1.99 | 83 | 2.00 | -0.01 |
| | Parbati 3 (4*130) | 520 | 130 | 130 | 0 | 0.40 | 16 | 0.39 | 0.01 |
| | **Sub Total (C )** | **4065** | **2425** | **2691** | **796** | **29** | **1206** | **27** | **1.50** |
| **D.SJVNL** | NJPC (6*250) | 1500 | 1096 | 1040 | 0 | 5.59 | 233 | 5.71 | -0.13 |
| | Rampur HEP (6*68.67) | 412 | 259 | 224 | 0 | 1.52 | 63 | 1.49 | 0.03 |
| | **Sub Total (D)** | **1912** | **1355** | **1264** | **0** | **7.10** | **296** | **7.20** | **-0.10** |
| **E. THDC** | Tehri HPS (4*250) | 1000 | 880 | 874 | 0 | 7.15 | 298 | 7.00 | 0.15 |
| | Koteshwar HPS (4*100) | 400 | 113 | 399 | 72 | 2.75 | 114 | 2.70 | 0.05 |
| | **Sub Total (E)** | **1400** | **993** | **1273** | **72** | **9.90** | **412** | **9.70** | **0.20** |
| **F. BBMB** | Bhakra HPS (2*108+3*126+5*157) | 1379 | 546 | 1025 | 393 | 13.13 | 547 | 13.10 | 0.03 |
| | Dehar HPS (6*165) | 990 | 116 | 495 | 0 | 2.87 | 119 | 2.78 | 0.09 |
| | Pong HPS (6*66) | 396 | 209 | 320 | 0 | 4.97 | 207 | 5.02 | -0.05 |
| | **Sub Total (F)** | **2765** | **871** | **1840** | **393** | **20.97** | **874** | **20.90** | **0.07** |
| **G. IPP(s)/JV(s)** | ALLAIN DUHANGAN HPS(IPP) (2*96) | 192 | 0 | 0 | 0 | 0.34 | 14 | 0.33 | 0.01 |
| | KARCHAM WANGTOO HPS(IPP) (4*250) | 1000 | 0 | 435 | 0 | 2.87 | 120 | 3.11 | -0.24 |
| | Malana Stg-II HPS (2*50) | 100 | 0 | 0 | 0 | 0.19 | 8 | 0.18 | 0.01 |
| | Shree Cement TPS (2*150) | 300 | 0 | 268 | 170 | 5.89 | 246 | 5.93 | -0.04 |
| | Budhil HPS(IPP) (2*35) | 70 | 0 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | **Sub Total (G )** | **1662** | **0** | **703** | **170** | **9.29** | **387** | **9.55** | **-0.25** |
| **H. Total Regional Entities (A-G)** | | **25237** | **17959** | **16667** | **8675** | **251.02** | **10459** | **252.97** | **-1.95** |

| 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 | 0 | 0 | -0.11 | -5 |
| | Guru Nanak Dev TPS(Bhatinda) (2*110+2*120) | 460 | 0 | 0 | -0.02 | -1 |
| | Guru Hargobind Singh TPS(L.mbt) (2*210+2*250) | 920 | 0 | 0 | -0.09 | -4 |
| | Goindwal(GVK) (2*270) | 540 | 0 | 0 | -0.02 | -1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Rajpura (2*700) | 1400 | 1120 | 660 | 24.19 | 1008 |
| | Talwandi Saboo (3*660) | 1980 | 616 | 616 | 15.87 | 661 |
| | **Thermal (Total)** | **6560** | **1736** | **1276** | 39.82 | **1659** |
| | Total Hydro | 1000 | 348 | 200 | 8.58 | 358 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 288 | 0 | 0 | 0.16 | 7 |
| | Solar | 560 | 0 | 0 | 0.08 | 3 |
| | **Renewable(Total)** | **848** | **0** | **0** | **0.23** | **10** |
| | **Total Punjab** | **8408** | **2084** | **1476** | **48.64** | **2026** |
| **Haryana** | Panipat TPS (2*210+2*250) | 920 | 459 | 413 | 10.71 | 446 |
| | DCRTPP (Yamuna nagar) (2*300) | 600 | 553 | 462 | 12.32 | 513 |
| | Faridabad GPS (NTPC)(2*137.75+1*156) | 432 | 199 | 162 | 4.44 | 185 |
| | RGTPP (khedar) (IPP) (2*600) | 1200 | 0 | 0 | 0.00 | 0 |
| | Magnum Diesel (IPP) | 25 | 0 | 0 | 0.00 | 0 |
| | Jhajjar(CLP) (2*660) | 1320 | 0 | 0 | 0.00 | 0 |
| | **Thermal (Total)** | **4497** | **1211** | **1037** | **27.47** | **1144** |
| | Total Hydro | 62 | 5 | 7 | 0.24 | 10 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 40 | 0 | 0 | 0.00 | 0 |
| | Solar | 0 | 0 | 0 | 0.00 | 0 |
| | **Renewable(Total)** | **40** | **0** | **0** | **0.00** | **0** |
| | **Total Haryana** | **4599** | **1216** | **1044** | **27.71** | **1154** |
| **Rajasthan** | kota TPS (2*110+2*195+3*210) | 1240 | 407 | 410 | 10.01 | 417 |
| | suratgarh TPS (6*250) | 1500 | 178 | 192 | 4.71 | 196 |
| | Chabra TPS (4*250) | 1000 | 802 | 771 | 19.95 | 831 |
| | 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 | 170 | 171 | 4.22 | 176 |
| | RAPS A (NPC) (1*100+1*200) | 300 | 175 | 175 | 4.38 | 183 |
| | Barsingsar (NLC) (2*125) | 250 | 223 | 227 | 4.71 | 196 |
| | Giral LTPS (2*125) | 250 | 0 | 0 | 0.00 | 0 |
| | Rajwest LTPS (IPP) (8*135) | 1080 | 528 | 445 | 15.33 | 639 |
| | VS LIGNITE LTPS (IPP) (1*135) | 135 | 0 | 0 | 0.00 | 0 |
| | Kalisindh Thermal(2*600) | 1200 | 838 | 829 | 21.89 | 912 |
| | Kawai(Adani) (2*660) | 1320 | 1190 | 862 | 26.95 | 1123 |
| | **Thermal (Total)** | **8876** | **4511** | **4082** | **112.15** | **4673** |
| | Total Hydro | 550 | 169 | 208 | 5.07 | 211 |
| | Wind power | 4017 | 500 | 491 | 14.90 | 621 |
| | Biomass | 99 | 13 | 13 | 0.32 | 13 |
| | Solar | 1295 | 0 | 0 | 3.51 | 146 |
| | Renewable/Others (Total) | 5411 | 513 | 504 | 18.73 | 780 |
| | **Total Rajasthan** | **14837** | **5193** | **4794** | **135.94** | **5664** |
| **UP** | Anpara TPS (3*210+2*500) | 1630 | 1231 | 937 | 28.27 | 1178 |
| | Obra TPS (2*50+2*94+5*200) | 1194 | 644 | 674 | 15.62 | 651 |
| | Paricha TPS (2*110+2*220+2*250) | 1160 | 0 | 0 | 0.00 | 0 |
| | Panki TPS (2*105) | 210 | 0 | 0 | 0.00 | 0 |
| | Harduaganj TPS (1*60+1*105+2*250) | 665 | 157 | 98 | 3.90 | 163 |
| | Tanda TPS (NTPC) (4*110) | 440 | 386 | 276 | 8.08 | 336 |
| | Roza TPS (IPP) (4*300) | 1200 | 581 | 545 | 15.61 | 650 |
| | Anpara-C (IPP) (2*600) | 1200 | 1067 | 824 | 23.54 | 981 |
| | Bajaj Energy Pvt.Ltd(IPP) TPS (10*45) | 450 | 0 | 0 | 0.00 | 0 |
| | Anpara-D(2*500) | 1000 | 865 | 736 | 19.13 | 797 |
| | Lalitpur TPS(3*660) | 1980 | 1080 | 833 | 26.21 | 1092 |
| | Bara(2*660) | 1320 | 1067 | 734 | 22.70 | 946 |
| | **Thermal (Total)** | **12449** | **7078** | **5657** | **163.05** | **6794** |
| | Vishnuparyag HPS (IPP)(4*110) | 440 | 63 | 63 | 1.54 | 64 |
| | Alaknanada(4*82.5) | 330 | 76 | 0 | 0.93 | 39 |
| | Other Hydro | 527 | 86 | 72 | 2.11 | 88 |
| | Cogeneration | 981 | 850 | 850 | 20.40 | 850 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 26 | 0 | 0 | 0.00 | 0 |
| | Solar | 102 | 0 | 0 | 0.00 | 0 |
| | **Renewable(Total)** | **128** | **0** | **0** | **0.00** | **0** |
| | **Total UP** | **14855** | **8153** | **6642** | **188.04** | **7835** |
| **Uttarakhand** | Other Hydro | 1250 | 432 | 238 | 6.79 | 283 |
| | Total Gas | 225 | 292 | 294 | 6.92 | 288 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 127 | 0 | 0 | 0.00 | 0 |
| | Solar | 20 | 0 | 0 | 0.06 | 2 |
| | Small Hydro (< 25 MW) | 180 | 0 | 0 | 0.00 | 0 |
| | **Renewable(Total)** | 327 | 0 | 0 | 0.06 | 2 |
| | **Total Uttarakhand** | 1802 | 724 | 532 | 13.77 | 574 |
| **Delhi** | Rajghat TPS (2*67.5) | 135 | 0 | 0 | -0.01 | 0 |
| | Delhi Gas Turbine (6x30 + 3x34) | 282 | 72 | 73 | 1.94 | 81 |
| | Pragati Gas Turbine (2x104+ 1x122) | 330 | 158 | 162 | 3.87 | 161 |
| | Rithala GPS (3*36) | 95 | 0 | 0 | 0.00 | 0 |
| | Bawana GPS (4*216+2*253) | 1370 | 249 | 280 | 5.67 | 236 |
| | Badarpur TPS (NTPC) (3*95+2*210) | 705 | 0 | 0 | -0.16 | -7 |
| | **Thermal (Total)** | **2917** | **479** | **515** | **11.31** | **471** |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 16 | 0 | 0 | 0.00 | 0 |
| | Solar | 2 | 0 | 0 | 0.00 | 0 |
| | **Renewable(Total)** | **18** | **0** | **0** | **0.00** | **0** |
| | **Total Delhi** | **2935** | **479** | **515** | **11.31** | **471** |
| **HP** | Baspa HPS (IPP) (3*100) | 300 | 28 | 0 | 0.75 | 31 |
| | Malana HPS (IPP) (2*43) | 86 | 0 | 0 | 0.16 | 7 |
| | Other Hydro | 372 | 197 | 96 | 3.53 | 147 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 0 | 0 | 0 | 0.00 | 0 |
| | Solar | 0 | 0 | 0 | 0.00 | 0 |
| | Small Hydro (< 25 MW) | 486 | 87 | 72 | 1.91 | 80 |
| | **Renewable(Total)** | **486** | **87** | **72** | **1.91** | **80** |
| | **Total HP** | **1244** | **313** | **168** | **6.36** | **265** |
| **J & K** | Baglihar HPS (IPP) (3*150+3*150) | 900 | 148 | 118 | 3.10 | 129 |
| | Other Hydro/IPP(including 98 MW Small Hydro) | 308 | 131 | 109 | 2.91 | 121 |
| | Gas/Diesel/Others | 190 | 0 | 0 | 0.00 | 0 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 0 | 0 | 0 | 0.00 | 0 |
| | Solar | 0 | 0 | 0 | 0.00 | 0 |
| | Small Hydro (< 25 MW)Included in Other Hydro Above | 98 | 0 | 0 | 0.00 | 0 |
| | **Renewable(Total)** | **98** | **0** | **0** | **0.00** | **0** |
| | **Total J & K** | **1398** | **279** | **227** | **6** | **250** |

| | | | | | |
|---|---|---|---|---|---|
| **Total State Control Area Generation** | **50078** | **18441** | **15398** | **437.76** | **18240** |
| **J. Net Inter Regional Exchange** [Import (+ve)/Export (-ve)] | | **8158** | **6571** | **190.77** | **7949** |
| **Total Regional Availability(Gross)** | **75315** | **43266** | **30644** | **879.56** | **36648** |

**IV. Total Hydro Generation:**

| | | | | | |
|---|---|---|---|---|---|
| **Regional Entities Hydro** | **12234** | **8376** | **1916** | **72.89** | **3037** |
| **State Control Area Hydro** | **7163** | **2063** | **1477** | **37.62** | **1858** |
| **Total Regional Hydro** | **19397** | **10439** | **3393** | **110.51** | **4895** |

**V. Total Renewable Generation:**

| | | | | | |
|---|---|---|---|---|---|
| **Regional Entities Renewable** | **30** | **0** | **0** | **0.04** | **2** |
| **State Control Area Renewable** | **7356** | **600** | **576** | **20.93** | **872** |
| **Total Regional Renewable** | **7386** | **600** | **576** | **20.97** | **874** |

**VI(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) | -250 | -250 | 50 | 250 | 0.15 | 5.36 | -5.21 |
| 765 KV Gwalior-Agra (D/C) | 2448 | 2195 | 2882 | 0 | 59.37 | 0.00 | 59.37 |
| 400 KV Zerda-Kankroli | -14 | -95 | 0 | 196 | 0.00 | 1.69 | -1.69 |
| 400 KV Zerda-Bhinmal | 82 | 15 | 125 | 160 | 0.30 | 0.00 | 0.30 |
| 220 KV Auraiya-Malanpur | -43 | -46 | 0 | 64 | 0.00 | 1.00 | -1.00 |
| 220 KV Badod-Kota/Morak | 41 | -8 | 65 | 20 | 0.74 | 0.00 | 0.74 |
| Mundra-Mohindergarh(HVDC Bipole) | 2299 | 1350 | 2305 | 0.00 | 48.18 | 0.00 | 48.18 |
| 400 KV RAPPC-Sujalpur | 360 | 218 | 369 | 0 | 6.10 | 0.00 | 6.10 |
| 400 KV Vindhyachal-Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 kV Phagi-Gwalior (D/C) | 1191 | 1171 | 748 | 0 | 29.92 | 0.00 | 29.92 |
| Champa-Kurushetra HVDC | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| **Sub Total WR** | **6114** | **4550** | | | **144.77** | **8.04** | **136.73** |
| 400 kV Sasaram - Varanasi | 203 | 176 | 196 | 0 | 6.47 | 0.00 | 6.47 |
| 400 kV Sasaram - Allahabad | 41 | 70 | 70 | 0 | 1.37 | 0.00 | 1.37 |
| 400 KV MZP- GKP (D/C) | 168 | 229 | 379 | 0 | 5.59 | 0.00 | 5.59 |
| 400 KV Patna-Balia(D/C) X 2 | 566 | 606 | 746 | 0 | 14.92 | 0.00 | 14.92 |
| 400 KV B'Sharif-Balia (D/C) | 88 | 138 | 212 | 0 | 3.36 | 0.00 | 3.36 |
| 765 KV Gaya-Balia | 286 | 274 | 365 | 0 | 6.82 | 0.00 | 6.82 |
| 765 KV Gaya-Varanasi (D/C) | 458 | 439 | 744 | 0 | 12.37 | 0.00 | 12.37 |
| 220 KV Pusauli-Sahupuri | 204 | 170 | 204 | 0 | 4.24 | 0.00 | 4.24 |
| 132 KV K'nasa-Sahupuri | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 132 KV Son Ngr-Rihand | -24 | -28 | 0 | 34 | 0.00 | 0.72 | -0.72 |
| 132 KV Garhwa-Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 KV Sasaram - Fatehpur | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 400 KV Barh -GKP (D/C) | 502 | 474 | 526 | 0 | 11.16 | 0.00 | 11.16 |
| 400 kV B'Sharif - Varanasi (D/C) | 58 | -26 | 115 | 58 | 0.69 | 0.00 | 0.69 |
| **Sub Total ER** | **2550** | **2522** | | | **66.96** | **0.72** | **66.25** |
| +/- 800 KV BiswanathCharialli-Agra | -506 | -501 | 0 | -506.00 | 0.00 | 12.20 | -12.20 |
| **Sub Total NER** | **-506** | **-501** | | | **0.00** | **12.20** | **-12.20** |
| **Total IR Exch** | **8158** | **6571** | | | **211.73** | **20.96** | **190.77** |

**VI(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 |
| 43.05 | 0.32 | 43.37 | -2.74 | 1.01 | 7.36 | -0.02 | 0.00 | 0.00 |

| 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 |
| 48.00 | 145.42 | 193.42 | 54.05 | 136.73 | 190.77 | 6.04 | -8.70 | -2.65 |

**VI(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 | -37 | -34 | 0 | 39 | 0 | 1 | -0.90 |

**VII. 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 | 0.00 | 2.03 | 41.68 | 69.49 | 18.91 | 9.22 | 0.05 | 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) | |
| 50.31 | 18.03 | 49.82 | 18.51 | 50.02 | 0.041 | 0.062 | 0.00 | 0.00 | 30.51 |

**VIII(A). Voltage profile 400 kV**

| Station | Voltage Level (kV) | Maximum | | Minimum | | Voltage (in % of Time) | | | | Voltage Deviat |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Voltage(KV) | Time | Voltage (KV) | Time | <380 kV | <390 kV | >420 kV | >430 kV | |
| Rihand | 400 | 410 | 2:58 | 398 | 7:20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gorakhpur | 400 | 423 | 3:03 | 402 | 9:18 | 0.0 | 0.0 | 6.7 | 0.0 | 6.7 |
| Bareilly(PG)400kV | 400 | 421 | 3:00 | 388 | 12:00 | 0.0 | 0.0 | 0.3 | 0.0 | 0.3 |
| Kanpur | 400 | 418 | 0:44 | 398 | 9:17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dadri | 400 | 428 | 2:59 | 402 | 9:35 | 0.0 | 0.0 | 28.0 | 0.0 | 28.0 |
| Ballabhgarh | 400 | 424 | 0:21 | 398 | 7:16 | 0.0 | 0.0 | 19.2 | 0.0 | 19.2 |
| Bawana | 400 | 428 | 3:03 | 403 | 7:15 | 0.0 | 0.0 | 35.9 | 0.0 | 35.9 |
| Bassi | 400 | 425 | 21:00 | 389 | 7:24 | 0.0 | 0.1 | 16.3 | 0.0 | 16.3 |
| Hissar | 400 | 423 | 0:01 | 400 | 7:15 | 0.0 | 0.0 | 15.3 | 0.0 | 15.3 |
| Moga | 400 | 423 | 0:03 | 403 | 7:24 | 0.0 | 0.0 | 18.0 | 0.0 | 18.0 |
| Abdullapur | 400 | 429 | 0:00 | 409 | 7:13 | 0.0 | 0.0 | 56.3 | 0.0 | 56.3 |
| Nalagarh | 400 | 430 | 0:24 | 412 | 7:18 | 0.0 | 0.0 | 69.4 | 0.0 | 69.4 |
| Kishenpur | 400 | 423 | 11:48 | 392 | 7:43 | 0.0 | 0.0 | 0.7 | 0.0 | 0.7 |
| Wagoora | 400 | 421 | 12:08 | 170 | 12:05 | 31.4 | 77.1 | 0.0 | 0.0 | 31.5 |
| Amritsar | 400 | 425 | 2:00 | 402 | 9:18 | 0.0 | 0.0 | 31.5 | 0.0 | 31.5 |
| Kashipur | 400 | 0 | 0:00 | 0 | 0:00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hamirpur | 400 | 423 | 2:26 | 401 | 9:32 | 0.0 | 0.0 | 15.9 | 0.0 | 15.9 |
| Rishikesh | 400 | 424 | 0:03 | 396 | 9:18 | 0.0 | 0.0 | 22.0 | 0.0 | 22.0 |

**VIII(B). Voltage profile 765 kV**

| Station | Voltage Level (kV) | Maximum | | Minimum | | Voltage (in % of Time) | | | | Voltage Deviat |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Voltage(KV) | Time | Voltage (KV) | Time | <728 kV | <742 kV | >800 kV | >820 kV | |
| Fatehpur | 765 | 778 | 23:58 | 740 | 6:52 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 |
| Balia | 765 | 789 | 1:04 | 756 | 9:17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Moga | 765 | 802 | 13:01 | 762 | 7:22 | 0.0 | 0.0 | 4.1 | 0.0 | 4.1 |
| Agra | 765 | 794 | 17:30 | 745 | 7:22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhiwani | 765 | 809 | 0:11 | 764 | 7:20 | 0.0 | 0.0 | 38.5 | 0.0 | 38.5 |
| Unnao | 765 | 775 | 2:59 | 737 | 9:13 | 0.0 | 5.8 | 0.0 | 0.0 | 0.0 |
| Lucknow | 765 | 796 | 2:59 | 756 | 9:17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Meerut | 765 | 811 | 17:30 | 753 | 7:22 | 0.0 | 0.0 | 18.2 | 0.0 | 18.2 |
| Jhatikara | 765 | 807 | 0:22 | 760 | 7:22 | 0.0 | 0.0 | 23.2 | 0.0 | 23.2 |
| Bareilly 765 kV | 765 | 801 | 2:59 | 757 | 9:17 | 0.0 | 0.0 | 0.3 | 0.0 | 0.3 |
| Anta | 765 | 786 | 17:02 | 753 | 7:21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Phagi | 765 | 798 | 16:02 | 747 | 7:35 | 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 | 479.33 | 447.73 | 492.51 | 817.99 | 160.87 | 428.24 |
| Pong | 426.72 | 384.05 | 403.36 | 296.79 | 402.59 | 281.22 | 60.14 | 355.06 |
| Tehri | 829.79 | 740.04 | 789.95 | 453.12 | 781.90 | 345.94 | 41.30 | 185.00 |
| Koteshwar | 612.50 | 598.50 | 610.55 | 4.80 | 610.71 | 4.95 | 185.00 | 180.77 |
| Chamera-I | 760.00 | 748.75 | 758.19 | 0.00 | 0.00 | 0.00 | 70.43 | 71.31 |
| Rihand | 268.22 | 252.98 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 504.42 | 1.54 | 495.61 | 0.00 | 111.12 | 63.90 |

*** 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** | -178 | -204 | 0 | -178 | -102 | 0 | -8.28 | -2.70 | -10.98 |
| **Delhi** | -189 | -601 | 0 | -318 | -49 | 0 | -6.44 | -1.56 | -8.00 |
| **Haryana** | -733 | 338 | 0 | -423 | 204 | 0 | -12.65 | 6.06 | -6.59 |
| **HP** | 436 | 98 | 0 | 334 | -188 | 0 | 12.13 | -2.38 | 9.75 |
| **J&K** | 521 | 0 | 0 | 517 | 182 | 0 | 12.30 | 2.57 | 14.87 |
| **CHD** | 0 | 0 | 0 | 0 | -20 | 0 | 0.00 | -0.32 | -0.32 |
| **Rajasthan** | 26 | 337 | 0 | 7 | 278 | 0 | 7.98 | 5.14 | 13.12 |
| **UP** | 82 | 0 | 0 | -136 | -100 | 0 | -8.17 | -1.71 | -9.88 |
| **Uttarakhand** | 120 | 196 | 0 | 0 | 125 | 0 | 1.54 | 6.22 | 7.76 |
| **Total** | **85** | **165** | **0** | **-195** | **329** | **0** | **-1.58** | **11.31** | **9.74** |

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

| State | Bilateral (MW) | | IEX (MW) | | PXIL (MW) | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum |
| **Punjab** | -178 | -736 | 0 | -560 | 0 | 0 |
| **Delhi** | -189 | -367 | 560 | -651 | 0 | 0 |
| **Haryana** | -227 | -733 | 341 | 43 | 0 | 0 |
| **HP** | 797 | 178 | 98 | -526 | 0 | 0 |
| **J&K** | 521 | 502 | 369 | -71 | 0 | 0 |
| **CHD** | 0 | 0 | 20 | -66 | 0 | 0 |
| **Rajasthan** | 912 | 7 | 337 | -575 | 0 | 0 |
| **UP** | 117 | -857 | 0 | -100 | 0 | 0 |
| **Uttarakhand** | 120 | 0 | 491 | 82 | 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** | **1.04%** |
| **ER** | **0.00%** |
| **Simultaneous** | **2.78%** |

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

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

**XII. Zero Crossing Violations**

| State | No. of violations(Maximum 8 in a day) | Maximum number of continuous blocks without sign change |
|---|---|---|
| Punjab | 2 | 22 |
| Haryana | 2 | 20 |
| Rajasthan | 0 | 12 |
| Delhi | 4 | 30 |
| UP | 2 | 15 |
| Uttarakhand | 2 | 34 |
| HP | 2 | 14 |
| J & K | 2 | 22 |
| Chandigarh | 3 | 29 |

**XIII.System Constraints:**

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

**XV. Weather Conditions For 12.02.2017 :**

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

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

1. 400 kV Jallandhar-Hamirpur line first time charged at 10.04Hrs on 12-02-2017 after LILO of 400 kV Amritsar -Hamirpur at Jallandhar S/S.

0.00

0

0

0.00

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

**XIX. 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 : 12.02.2017**

**पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**