# 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 01.01.2017**
**Date of Reporting : 02.01.2017**

**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 |
| 40444 | 560 | 41004 | 50.05 | 28495 | 445 | 28941 | 50.06 | 836.76 | 14.20 |

* 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 | 48.30 | 8.21 | 1.22 | 57.74 | 33.76 | 33.40 | -0.36 | 91.13 | 0.00 |
| Haryana | 33.58 | 0.26 | 0.00 | 33.84 | 71.71 | 71.60 | -0.10 | 105.44 | 0.00 |
| Rajasthan | 113.12 | 3.46 | 11.24 | 127.81 | 70.07 | 71.91 | 1.84 | 199.72 | 0.00 |
| Delhi | 11.95 | | 0.00 | 11.95 | 44.04 | 44.39 | 0.35 | 56.34 | 0.01 |
| UP | 177.93 | 7.34 | 0.00 | 185.27 | 97.02 | 97.07 | 0.05 | 282.34 | 2.52 |
| Uttarakhand | | 9.23 | 0.00 | 16.09 | 14.45 | 13.63 | -0.82 | 29.72 | 0.00 |
| HP | | 3.94 | 0.17 | 3.94 | 19.58 | 18.37 | -1.20 | 22.31 | 0.01 |
| J & K | | 4.38 | 0.00 | 4.38 | 38.45 | 42.30 | 3.86 | 46.68 | 11.67 |
| Chandigarh | | | | 0.00 | 3.29 | 3.07 | -0.22 | 3.07 | 0.00 |
| Total | 384.88 | 36.82 | 12.63 | 441.02 | 392.34 | 395.75 | 3.40 | 836.76 | 14.20 |

* 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 | 4623 | 0 | -7 | -618 | 2688 | 0 | -97 | -543 | 4900 | 8:00 | 0 |
| Haryana | 5763 | 0 | 15 | -310 | 2950 | 0 | 94 | -612 | 5763 | 19:00 | 0 |
| Rajasthan | 9206 | 0 | -87 | 239 | 7495 | 0 | 0 | 267 | 9206 | 19:00 | 0 |
| Delhi | 2616 | 0 | 1 | -165 | 1429 | 0 | 33 | -412 | 3482 | 12:00 | 0 |
| UP | 13251 | 0 | 68 | -294 | 10335 | 0 | 134 | 76 | 13251 | 19:00 | 0 |
| Uttarakhand | 1512 | 0 | 61 | 124 | 1011 | 0 | -167 | 236 | 1684 | 8:00 | 0 |
| HP | 1075 | 0 | -117 | 345 | 719 | 0 | -54 | 571 | 1250 | 9:00 | 5 |
| J&K | 2242 | 560 | 353 | 857 | 1782 | 445 | 106 | 851 | 2242 | 19:00 | 560 |
| Chandigarh | 157 | 0 | 2 | -10 | 87 | 0 | -17 | 0 | 188 | 9:00 | 0 |
| Total | 40444 | 560 | 289 | 169 | 28495 | 445 | 32 | 434 | 40444 | 19:00 | 560 |

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

Diversity is 1.04

**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 | 1875 | 2017 | 1607 | 41.83 | 1743 | 41.39 | 0.44 |
| | Rihand I STPS (2*500) | 1000 | 843 | 871 | 677 | 17.49 | 729 | 17.43 | 0.06 |
| | Rihand II STPS (2*500) | 1000 | 950 | 982 | 729 | 20.19 | 841 | 19.93 | 0.27 |
| | Rihand III STPS (2*500) | 1000 | 960 | 1028 | 719 | 20.35 | 848 | 20.28 | 0.07 |
| | Dadri I STPS (4*210) | 840 | 815 | 183 | 142 | 4.24 | 177 | 4.38 | -0.15 |
| | Dadri II STPS (2*490) | 980 | 980 | 393 | 330 | 8.82 | 368 | 9.48 | -0.66 |
| | Unchahar I TPS (2*210) | 420 | 406 | 306 | 297 | 7.21 | 300 | 7.91 | -0.71 |
| | Unchahar II TPS (2*210) | 420 | 405 | 284 | 278 | 6.87 | 286 | 7.51 | -0.64 |
| | Unchahar III TPS (1*210) | 210 | 203 | 138 | 153 | 3.47 | 145 | 3.79 | -0.31 |
| | ISTPP (Jhajjhar) (3*500) | 1500 | 1440 | 610 | 594 | 14.11 | 588 | 13.98 | 0.13 |
| | Dadri GPS (4*130.19+2*154.51) | 830 | 799 | 292 | 241 | 6.20 | 258 | 6.74 | -0.54 |
| | Anta GPS (3*88.71+1*153.2) | 419 | 417 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Auraiya GPS (4*111.19+2*109.30) | 663 | 637 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Dadri Solar(5) | 5 | 1 | 0 | 0 | 0.01 | 1 | 0.01 | 0.00 |
| | Unchahar Solar(10) | 10 | 1 | 0 | 0 | 0.00 | 0 | 0.01 | -0.01 |
| | Singrauli Solar(15) | 15 | 1 | 0 | 0 | 0.03 | 1 | 0.03 | 0.01 |
| | KHEP(4*200) | 800 | 870 | 435 | 0 | 2.59 | 108 | 2.61 | -0.02 |
| | **Sub Total (A)** | **12112** | **11600** | **7539** | **5767** | **153** | **6392** | **155** | **-2.06** |
| B. NPC | NAPS (2*220) | 440 | 420 | 453 | 461 | 9.99 | 416 | 10.08 | -0.09 |
| | RAPS- B (2*220) | 440 | 384 | 425 | 429 | 9.25 | 385 | 9.22 | 0.03 |
| | RAPS- C (2*220) | 440 | 220 | 238 | 239 | 5.07 | 211 | 5.28 | -0.21 |
| | **Sub Total (B)** | **1320** | **1024** | **1116** | **1129** | **24.31** | **1013** | **24.58** | **-0.27** |
| C. NHPC | Chamera I HPS (3*180) | 540 | 332 | 369 | 0 | 1.52 | 63 | 1.40 | 0.12 |
| | Chamera II HPS (3*100) | 300 | 201 | 210 | 0 | 1.13 | 47 | 1.00 | 0.13 |
| | Chamera III HPS (3*77) | 231 | 175 | 97 | 0 | 0.54 | 22 | 0.53 | 0.01 |
| | Bairasuil HPS(3*60) | 180 | 120 | 0 | 0 | 0.00 | 0 | 0.40 | -0.40 |
| | Salal-HPS (6*115) | 690 | 104 | 230 | 120 | 2.91 | 121 | 2.49 | 0.42 |
| | Tanakpur-HPS (3*31.4) | 94 | 22 | 31 | 21 | 0.63 | 26 | 0.51 | 0.11 |
| | Uri-I HPS (4*120) | 480 | 59 | 234 | 22 | 1.51 | 63 | 1.39 | 0.12 |
| | Uri-II HPS (4*60) | 240 | 48 | 119 | 38 | 1.14 | 48 | 1.14 | 0.01 |
| | Dhauliganga-HPS (4*70) | 280 | 280 | 273 | 0 | 0.94 | 39 | 0.88 | 0.06 |
| | Dulhasti-HPS (3*130) | 390 | 386 | 395 | 0 | 2.12 | 88 | 2.00 | 0.12 |
| | Sewa-II HPS (3*40) | 120 | 79 | 25 | 0 | 0.19 | 8 | 0.21 | -0.02 |
| | Parbati 3 (4*130) | 520 | 130 | 131 | 0 | 0.40 | 16 | 0.39 | 0.01 |
| | **Sub Total (C )** | **4065** | **1935** | **2113** | **201** | **13** | **542** | **12** | **0.69** |
| D.SJVNL | NJPC (6*250) | 1500 | 1615 | 1601 | 0 | 6.75 | 281 | 6.60 | 0.15 |
| | Rampur HEP (6*68.67) | 412 | 375 | 373 | 0 | 1.86 | 78 | 1.79 | 0.08 |
| | **Sub Total (D)** | **1912** | **1990** | **1974** | **0** | **8.62** | **359** | **8.39** | **0.23** |
| E. THDC | Tehri HPS (4*250) | 1000 | 1020 | 502 | 0 | 6.83 | 285 | 6.74 | 0.10 |
| | Koteshwar HPS (4*100) | 400 | 128 | 397 | 71 | 2.61 | 109 | 2.59 | 0.02 |
| | **Sub Total (E)** | **1400** | **1148** | **899** | **71** | **9.45** | **394** | **9.33** | **0.12** |
| F. BBMB | Bhakra HPS (2*108+3*126+5*157) | 1379 | 578 | 929 | 384 | 14.38 | 599 | 13.88 | 0.51 |
| | Dehar HPS (6*165) | 990 | 87 | 330 | 0 | 2.16 | 90 | 2.10 | 0.06 |
| | Pong HPS (6*66) | 396 | 193 | 396 | 0 | 4.59 | 191 | 4.62 | -0.03 |
| | **Sub Total (F)** | **2765** | **858** | **1655** | **384** | **21.13** | **881** | **20.59** | **0.54** |
| G. IPP(s)/JV(s) | ALLAIN DUHANGAN HPS(IPP) (2*96) | 192 | 0 | 0 | 0 | 0.40 | 17 | 0.39 | 0.02 |
| | KARCHAM WANGTOO HPS(IPP) (4*250) | 1000 | 0 | 630 | 0 | 3.56 | 148 | 3.56 | 0.00 |
| | Malana Stg-II HPS (2*50) | 100 | 0 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Shree Cement TPS (2*150) | 300 | 0 | -2 | 19 | 0.10 | 4 | 0.95 | -0.86 |
| | Budhil HPS(IPP) (2*35) | 70 | 0 | 0 | 0 | 0.17 | 7 | 0.19 | -0.02 |
| | **Sub Total (G )** | **1662** | **0** | **628** | **19** | **4.23** | **176** | **5.09** | **-0.86** |
| **H. Total Regional Entities (A-G)** | | **25237** | **18555** | **15925** | **7571** | **234.17** | **9757** | **235.78** | **-1.61** |

| 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 | 160 | 160 | 3.62 | 151 |
| | 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 | 202 | 202 | 4.60 | 191 |
| | Goindwal(GVK) (2*270) | 540 | 0 | 0 | -0.02 | -1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Rajpura (2*700) | 1400 | 660 | 660 | 22.98 | 957 |
| | Talwandi Saboo (3*660) | 1980 | 616 | 616 | 17.16 | 715 |
| | **Thermal (Total)** | **6560** | **1638** | **1638** | 48.30 | **2013** |
| | Total Hydro | 1000 | 427 | 215 | 8.21 | 342 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 288 | 0 | 0 | 1.21 | 50 |
| | Solar | 560 | 0 | 0 | 0.01 | 1 |
| | **Renewable(Total)** | **848** | **0** | **0** | **1.22** | **51** |
| | **Total Punjab** | **8408** | **2065** | **1853** | **57.74** | **2406** |
| **Haryana** | Panipat TPS (2*210+2*250) | 920 | 410 | 407 | 9.95 | 415 |
| | DCRTPP (Yamuna nagar) (2*300) | 600 | 233 | 229 | 5.68 | 237 |
| | Faridabad GPS (NTPC)(2*137.75+1*156) | 432 | 0 | 0 | 0.00 | 0 |
| | RGTPP (khedar) (IPP) (2*600) | 1200 | 377 | 388 | 9.06 | 378 |
| | Magnum Diesel (IPP) | 25 | 0 | 0 | 0.00 | 0 |
| | Jhajjar(CLP) (2*660) | 1320 | 366 | 369 | 8.88 | 370 |
| | **Thermal (Total)** | **4497** | **1386** | **1393** | **33.58** | **1399** |
| | Total Hydro | 62 | 12 | 8 | 0.26 | 11 |
| | 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** | **1398** | **1401** | **33.84** | **1410** |
| **Rajasthan** | kota TPS (2*110+2*195+3*210) | 1240 | 1083 | 974 | 23.52 | 980 |
| | suratgarh TPS (6*250) | 1500 | 221 | 213 | 5.39 | 224 |
| | Chabra TPS (4*250) | 1000 | 879 | 800 | 19.81 | 826 |
| | 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 | 121 | 136 | 2.36 | 98 |
| | RAPS A (NPC) (1*100+1*200) | 300 | 169 | 170 | 4.23 | 176 |
| | Barsingsar (NLC) (2*125) | 250 | 226 | 224 | 5.35 | 223 |
| | Giral LTPS (2*125) | 250 | 0 | 0 | 0.00 | 0 |
| | Rajwest LTPS (IPP) (8*135) | 1080 | 835 | 687 | 16.59 | 691 |
| | VS LIGNITE LTPS (IPP) (1*135) | 135 | 0 | 0 | 0.00 | 0 |
| | Kalisindh Thermal(2*600) | 1200 | 1055 | 822 | 21.68 | 903 |
| | Kawai(Adani) (2*660) | 1320 | 617 | 608 | 14.20 | 592 |
| | **Thermal (Total)** | **8876** | **5206** | **4634** | **113.12** | **4713** |
| | Total Hydro | 550 | 129 | 129 | 3.46 | 144 |
| | Wind power | 4017 | 132 | 483 | 9.05 | 377 |
| | Biomass | 99 | 13 | 13 | 0.31 | 13 |
| | Solar | 1295 | 0 | 0 | 1.88 | 78 |
| | Renewable/Others (Total) | 5411 | 145 | 496 | 11.24 | 468 |
| | **Total Rajasthan** | **14837** | **5480** | **5259** | **127.81** | **5325** |
| **UP** | Anpara TPS (3*210+2*500) | 1630 | 1067 | 1014 | 26.40 | 1100 |
| | Obra TPS (2*50+2*94+5*200) | 1194 | 478 | 452 | 11.40 | 475 |
| | Paricha TPS (2*110+2*220+2*250) | 1160 | 655 | 654 | 19.20 | 800 |
| | Panki TPS (2*105) | 210 | 135 | 135 | 3.30 | 138 |
| | Harduaganj TPS (1*60+1*105+2*250) | 665 | 415 | 414 | 11.50 | 479 |
| | Tanda TPS (NTPC) (4*110) | 440 | 278 | 210 | 6.30 | 262 |
| | Roza TPS (IPP) (4*300) | 1200 | 1097 | 747 | 24.39 | 1016 |
| | Anpara-C (IPP) (2*600) | 1200 | 1080 | 990 | 23.52 | 980 |
| | Bajaj Energy Pvt.Ltd(IPP) TPS (10*45) | 450 | 223 | 166 | 6.13 | 255 |
| | Anpara-D(2*500) | 1000 | 224 | 297 | 6.95 | 290 |
| | Lalitpur TPS(3*660) | 1980 | 593 | 0 | 4.82 | 201 |
| | Bara(2*660) | 1320 | 812 | 390 | 13.63 | 568 |
| | **Thermal (Total)** | **12449** | **7057** | **5469** | **157.53** | **6564** |
| | Vishnuparyag HPS (IPP)(4*110) | 440 | 83 | 83 | 1.96 | 82 |
| | Alaknanada(4*82.5) | 330 | 76 | 0 | 1.22 | 51 |
| | Other Hydro | 527 | 51 | 219 | 4.16 | 173 |
| | 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** | **8117** | **6621** | **185.27** | **7720** |
| **Uttarakhand** | Other Hydro | 1250 | 508 | 321 | 9.23 | 384 |
| | Total Gas | 225 | 285 | 289 | 6.81 | 284 |
| | Wind Power | 0 | 0 | 0 | 0.00 | 0 |
| | Biomass | 127 | 0 | 0 | 0.00 | 0 |
| | Solar | 20 | 0 | 0 | 0.05 | 2 |
| | Small Hydro (< 25 MW) | 180 | 0 | 0 | 0.00 | 0 |
| | **Renewable(Total)** | 327 | 0 | 0 | 0.05 | 2 |
| | **Total Uttarakhand** | 1802 | 793 | 610 | 16.09 | 670 |
| **Delhi** | Rajghat TPS (2*67.5) | 135 | 0 | 0 | 0.00 | 0 |
| | Delhi Gas Turbine (6x30 + 3x34) | 282 | 61 | 72 | 1.94 | 81 |
| | Pragati Gas Turbine (2x104+ 1x122) | 330 | 157 | 161 | 3.85 | 160 |
| | Rithala GPS (3*36) | 95 | 0 | 0 | 0.00 | 0 |
| | Bawana GPS (4*216+2*253) | 1370 | 250 | 280 | 6.17 | 257 |
| | Badarpur TPS (NTPC) (3*95+2*210) | 705 | 0 | 0 | 0.00 | 0 |
| | **Thermal (Total)** | **2917** | **468** | **513** | **11.95** | **498** |
| | 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** | **468** | **513** | **11.95** | **498** |
| **HP** | Baspa HPS (IPP) (3*100) | 300 | 41 | 0 | 1.12 | 46 |
| | Malana HPS (IPP) (2*43) | 86 | 0 | 0 | 0.23 | 10 |
| | Other Hydro | 372 | 151 | 47 | 2.43 | 101 |
| | 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 | 53 | 39 | 0.17 | 7 |
| | **Renewable(Total)** | **486** | **53** | **39** | **0.17** | **7** |
| | **Total HP** | **1244** | **244** | **87** | **3.94** | **164** |
| **J & K** | Baglihar HPS (IPP) (3*150+3*150) | 900 | 142 | 142 | 3.39 | 141 |
| | Other Hydro/IPP(including 98 MW Small Hydro) | 308 | 81 | 21 | 0.99 | 41 |
| | 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** | **223** | **163** | **4** | **183** |

| | | | | | |
|---|---|---|---|---|---|
| **Total State Control Area Generation** | **50078** | **18788** | **16506** | **441.02** | **18376** |
| **J. Net Inter Regional Exchange** [Import (+ve)/Export (-ve)] | | **7132** | **6483** | **195.85** | **8161** |
| **Total Regional Availability(Gross)** | **75315** | **41845** | **30561** | **871.04** | **36293** |

**IV. Total Hydro Generation:**

| | | | | | |
|---|---|---|---|---|---|
| **Regional Entities Hydro** | **12234** | **7706** | **656** | **58.77** | **2449** |
| **State Control Area Hydro** | **7163** | **2038** | **1514** | **36.82** | **1820** |
| **Total Regional Hydro** | **19397** | **9745** | **2170** | **95.59** | **4269** |

**V. Total Renewable Generation:**

| | | | | | |
|---|---|---|---|---|---|
| **Regional Entities Renewable** | **30** | **0** | **0** | **0.05** | **2** |
| **State Control Area Renewable** | **7356** | **198** | **535** | **12.68** | **528** |
| **Total Regional Renewable** | **7386** | **198** | **535** | **12.73** | **530** |

**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) | 400 | 400 | 0 | 500 | 0.00 | 9.78 | -9.78 |
| 765 KV Gwalior-Agra (D/C) | 2562 | 1965 | 2945 | 0 | 57.50 | 0.00 | 57.50 |
| 400 KV Zerda-Kankroli | 90 | -188 | 90 | 201 | 0.00 | 1.37 | -1.37 |
| 400 KV Zerda-Bhinmal | 129 | -101 | 210 | 150 | 0.97 | 0.00 | 0.97 |
| 220 KV Auraiya-Malanpur | -55 | -57 | 0 | 88 | 0.00 | 1.47 | -1.47 |
| 220 KV Badod-Kota/Morak | 1 | -51 | 16 | 64 | 0.00 | 1.00 | -1.00 |
| Mundra-Mohindergarh(HVDC Bipole) | 2202 | 2198 | 2503 | 0.00 | 53.49 | 0.00 | 53.49 |
| 400 KV RAPPC-Sujalpur | -380 | -185 | 458 | 0 | 8.02 | 0.00 | 8.02 |
| 400 KV Vindhyachal-Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 kV Phagi-Gwalior (D/C) | 1175 | 1121 | 1561 | 0 | 32.78 | 0.00 | 32.78 |
| **Sub Total WR** | **6124** | **5102** | | | **152.77** | **13.63** | **139.14** |
| 400 kV Sasaram - Varanasi | 27 | 28 | 4 | 65 | 0.00 | 1.05 | -1.05 |
| 400 kV Sasaram - Allahabad | -138 | -120 | 0 | 172 | 0.00 | 2.92 | -2.92 |
| 400 KV MZP- GKP (D/C) | 161 | 444 | 489 | 0 | 7.27 | 0.00 | 7.27 |
| 400 KV Patna-Balia(D/C) X 2 | 726 | 749 | 854 | 0 | 17.90 | 0.00 | 17.90 |
| 400 KV B'Sharif-Balia (D/C) | 95 | 184 | 299 | 0 | 4.60 | 0.00 | 4.60 |
| 765 KV Gaya-Balia | 134 | 223 | 323 | 0 | 5.83 | 0.00 | 5.83 |
| 765 KV Gaya-Varanasi (D/C) | -438 | -481 | 809 | 0 | 13.98 | 0.00 | 13.98 |
| 220 KV Pusauli-Sahupuri | 213 | 115 | 213 | 0 | 3.22 | 0.00 | 3.22 |
| 132 KV K'nasa-Sahupuri | 0 | 0 | 0 | 0 | 0.00 | 0.51 | -0.51 |
| 132 KV Son Ngr-Rihand | 0 | -27 | 0 | 0 | 0.00 | -0.58 | 0.58 |
| 132 KV Garhwa-Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 KV Sasaram - Fatehpur | 109 | 104 | 239 | 0 | 3.57 | 0.00 | 3.57 |
| 400 KV Barh -GKP (D/C) | 502 | 510 | 602 | 0 | 12.09 | 0.00 | 12.09 |
| 400 kV B'Sharif - Varanasi (D/C) | 128 | 157 | 297 | 0 | 4.18 | 0.00 | 4.18 |
| **Sub Total ER** | **1519** | **1886** | | | **72.65** | **3.89** | **68.76** |
| +/- 800 KV BiswanathCharialli-Agra | -511 | -505 | 0 | -511.00 | 0.00 | 12.05 | -12.05 |
| **Sub Total NER** | **-511** | **-505** | | | **0.00** | **12.05** | **-12.05** |
| **Total IR Exch** | **7132** | **6483** | | | **225.42** | **29.57** | **195.85** |

**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 |
| 44.49 | 0.54 | 45.03 | -0.22 | -7.67 | 22.07 | 1.02 | 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 |
| 66.89 | 123.07 | 189.95 | 56.71 | 139.14 | 195.85 | -10.18 | 16.08 | 5.90 |

**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 | -13 | -13 | 0 | -14 | 0 | -1 | 0.74 |

**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 | 5.69 | 46.64 | 68.94 | 17.81 | 7.06 | 0.58 | 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) | |
| 50.25 | 22.00 | 49.80 | 8.42 | 50.01 | 0.044 | 0.066 | 50.15 | 49.90 | 31.06 |

**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 | 408 | 1:06 | 397 | 11:06 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gorakhpur | 400 | 416 | 3:28 | 399 | 17:49 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bareilly(PG)400kV | 400 | 421 | 0:52 | 399 | 16:33 | 0.0 | 0.0 | 0.6 | 0.0 | 0.6 |
| Kanpur | 400 | 418 | 0:55 | 401 | 12:09 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dadri | 400 | 429 | 3:00 | 407 | 12:09 | 0.0 | 0.0 | 32.8 | 0.0 | 32.8 |
| Ballabhgarh | 400 | 433 | 4:02 | 410 | 12:12 | 0.0 | 0.0 | 64.4 | 11.0 | 64.4 |
| Bawana | 400 | 426 | 0:53 | 406 | 12:09 | 0.0 | 0.0 | 25.1 | 0.0 | 25.1 |
| Bassi | 400 | 423 | 22:00 | 396 | 10:18 | 0.0 | 0.0 | 2.2 | 0.0 | 2.2 |
| Hissar | 400 | 422 | 0:55 | 400 | 12:12 | 0.0 | 0.0 | 0.8 | 0.0 | 0.8 |
| Moga | 400 | 413 | 6:10 | 404 | 12:09 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Abdullapur | 400 | 428 | 0:50 | 410 | 12:09 | 0.0 | 0.0 | 35.5 | 0.0 | 35.5 |
| Nalagarh | 400 | 429 | 0:50 | 416 | 6:41 | 0.0 | 0.0 | 50.3 | 0.0 | 50.3 |
| Kishenpur | 400 | 420 | 0:52 | 399 | 10:18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wagoora | 400 | 393 | 3:01 | 366 | 18:19 | 48.8 | 95.9 | 0.0 | 0.0 | 48.8 |
| Amritsar | 400 | 429 | 3:27 | 407 | 9:43 | 0.0 | 0.0 | 34.9 | 0.0 | 34.9 |
| Kashipur | 400 | 0 | 0:00 | 0 | 0:00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hamirpur | 400 | 423 | 23:35 | 403 | 10:16 | 0.0 | 0.0 | 24.9 | 0.0 | 24.9 |
| Rishikesh | 400 | 422 | 4:00 | 401 | 6:57 | 0.0 | 0.0 | 2.4 | 0.0 | 2.4 |

**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 | 779 | 0:52 | 741 | 6:41 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| Balia | 765 | 787 | 1:02 | 757 | 12:09 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Moga | 765 | 790 | 19:19 | 769 | 12:10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Agra | 765 | 795 | 0:54 | 755 | 12:10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhiwani | 765 | 810 | 0:52 | 771 | 12:08 | 0.0 | 0.0 | 27.0 | 0.0 | 27.0 |
| Unnao | 765 | 769 | 4:00 | 739 | 12:09 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| Lucknow | 765 | 799 | 4:00 | 767 | 12:09 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Meerut | 765 | 815 | 0:52 | 761 | 6:48 | 0.0 | 0.0 | 4.6 | 0.0 | 4.6 |
| Jhatikara | 765 | 809 | 0:55 | 770 | 12:08 | 0.0 | 0.0 | 19.8 | 0.0 | 19.8 |
| Bareilly 765 kV | 765 | 794 | 0:54 | 761 | 12:09 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Anta | 765 | 792 | 3:04 | 761 | 1:05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Phagi | 765 | 801 | 3:59 | 756 | 1:04 | 0.0 | 0.0 | 0.7 | 0.0 | 0.7 |

**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 | 488.14 | 680.71 | 500.79 | 1127.29 | 153.08 | 439.42 |
| Pong | 426.72 | 384.05 | 407.93 | 425.81 | 411.03 | 534.70 | 50.74 | 310.18 |
| Tehri | 829.79 | 740.04 | 808.10 | 765.23 | 802.05 | 647.38 | 39.03 | 158.00 |
| Koteshwar | 612.50 | 598.50 | 609.83 | 4.10 | 611.09 | 4.95 | 158.00 | 172.00 |
| Chamera-I | 760.00 | 748.75 | 759.69 | 0.00 | 0.00 | 0.00 | 41.53 | 40.65 |
| 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 | 504.76 | 1.87 | 497.98 | 0.83 | 37.80 | 76.23 |

*** 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** | -544 | 1 | 0 | -618 | 0 | 0 | -18.46 | -0.14 | -18.60 |
| **Delhi** | -99 | -313 | 0 | -225 | 60 | 0 | -3.36 | -0.26 | -3.63 |
| **Haryana** | -845 | 233 | 0 | -510 | 200 | 0 | -14.92 | 4.61 | -10.31 |
| **HP** | 481 | 90 | 0 | 358 | -13 | 0 | 12.03 | -0.95 | 11.08 |
| **J&K** | 608 | 243 | 0 | 605 | 252 | 0 | 14.40 | 5.72 | 20.12 |
| **CHD** | 0 | 0 | 0 | 0 | -10 | 0 | 0.00 | -0.09 | -0.09 |
| **Rajasthan** | -71 | 339 | 0 | -71 | 311 | 0 | 5.77 | 14.03 | 19.81 |
| **UP** | 76 | 0 | 0 | -194 | -100 | 0 | -8.64 | -1.15 | -9.79 |
| **Uttarakhand** | 96 | 140 | 0 | 96 | 28 | 0 | 2.25 | 1.95 | 4.20 |
| **Total** | **-297** | **730** | **0** | **-559** | **727** | **0** | **-10.93** | **23.73** | **12.80** |

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

| State | Bilateral (MW) | | IEX (MW) | | PXIL (MW) | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum |
| **Punjab** | -534 | -1264 | 1 | -257 | 0 | 0 |
| **Delhi** | -22 | -238 | 591 | -471 | 0 | 0 |
| **Haryana** | -510 | -845 | 233 | -168 | 0 | 0 |
| **HP** | 695 | 334 | 90 | -584 | 0 | 0 |
| **J&K** | 608 | 590 | 383 | -124 | 0 | 0 |
| **CHD** | 0 | 0 | 14 | -51 | 0 | 0 |
| **Rajasthan** | 805 | -71 | 1187 | 274 | 0 | 0 |
| **UP** | 92 | -876 | 0 | -100 | 0 | 0 |
| **Uttarakhand** | 127 | 17 | 266 | -248 | 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** | **3.47%** |
| **ER** | **1.04%** |
| **Simultaneous** | **13.89%** |

(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 | 0 | 12 |
| Haryana | 2 | 20 |
| Rajasthan | 1 | 15 |
| Delhi | 3 | 21 |
| UP | 1 | 13 |
| Uttarakhand | 2 | 19 |
| HP | 2 | 22 |
| J & K | 5 | 53 |
| Chandigarh | 4 | 24 |

**XIII.System Constraints:**

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

**XV. Weather Conditions For 01.01.2017 :**

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

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

0
0.00
0
0

**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 : 01.01.2017**

**पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**