# 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 24.03.2016
### Date of Reporting : 25.03.2016

**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 |
| 31300 | 477 | 31777 | 49.99 | 29278 | 275 | 29554 | 50.04 | 743.1 | 9.55 |

* 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 | 19.49 | 8.36 | | 27.85 | 50.43 | 51.54 | 1.11 | 79.39 | 0.00 |
| Haryana | 20.80 | 0.28 | | 21.08 | 68.90 | 69.15 | 0.25 | 90.23 | 0.00 |
| Rajasthan | 92.28 | 1.90 | 12.64 | 106.82 | 49.95 | 52.59 | 2.64 | 159.41 | 0.00 |
| Delhi | 4.33 | | | 4.33 | 43.24 | 43.58 | 0.34 | 47.91 | 0.02 |
| UP | 155.84 | 4.30 | | 160.14 | 121.14 | 123.66 | 2.51 | 283.80 | 0.00 |
| Uttarakhand | | 8.14 | | 8.14 | 15.67 | 13.97 | -1.70 | 22.11 | 0.00 |
| HP | | 7.42 | | 7.42 | 8.67 | 9.62 | 0.95 | 17.05 | 0.00 |
| J & K | | 10.02 | 0.00 | 10.02 | 30.56 | 30.41 | -0.15 | 40.43 | 9.53 |
| Chandigarh | | | | 0.00 | 2.87 | 2.78 | 0.27 | 2.78 | 0.00 |
| | | | | | | | | | |
| **Total** | **292.73** | **40.41** | **12.64** | **345.79** | **391.43** | **397.31** | **6.24** | **743.09** | **9.55** |

* 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 | 3388 | 0 | 238 | -545 | 2717 | 0 | 51 | 51 | 3696 |
| Haryana | 4708 | 0 | -169 | -127 | 3085 | 0 | 64 | -503 | 5090 |
| Rajasthan | 5430 | 0 | -40 | 262 | 7092 | 0 | 343 | 305 | 7534 |
| Delhi | 2009 | 10 | -207 | -325 | 1807 | 0 | 141 | -761 | 2388 |
| UP | 12029 | 0 | 33 | 872 | 11285 | 0 | -296 | 804 | 13594 |
| Uttarakhand | 1068 | 0 | -175 | 242 | 943 | 0 | 140 | 143 | 1141 |
| HP | 651 | 0 | -33 | -568 | 692 | 0 | 82 | 63 | 932 |
| J&K | 1869 | 467 | 12 | 351 | 1561 | 275 | 66 | 387 | 2020 |
| Chandigarh | 148 | 0 | -23 | -20 | 95 | 0 | 6 | -15 | 154 |
| **Total** | **31300** | **477** | **-364** | **142** | **29278** | **275** | **598** | **472** | **35208** |

* 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 | 1883 | 1803 | 1995 | 42.37 | 1765 | 42.20 | 0.16 |
| | Rihand I STPS (2*500) | 1000 | 833 | 776 | 757 | 17.42 | 726 | 17.57 | -0.15 |
| | Rihand II STPS (2*500) | 1000 | 949 | 844 | 767 | 19.98 | 833 | 19.97 | 0.01 |
| | Rihand III STPS (2*500) | 1000 | 949 | 980 | 815 | 20.59 | 858 | 20.77 | -0.17 |
| | Dadri I STPS (4*210) | 840 | 815 | 300 | 308 | 7.25 | 302 | 7.47 | -0.22 |
| | Dadri II STPS (2*490) | 980 | 980 | 427 | 453 | 9.83 | 409 | 10.15 | -0.33 |
| | Unchahar I TPS (2*210) | 420 | 350 | 290 | 281 | 6.17 | 257 | 6.07 | 0.09 |
| | Unchahar II TPS (2*210) | 420 | 404 | 306 | 313 | 6.77 | 282 | 6.79 | -0.02 |
| | Unchahar III TPS (1*210) | 210 | 202 | 153 | 154 | 3.37 | 140 | 3.39 | -0.03 |
| | ISTPP (Jhajjhar) (3*500) | 1500 | 950 | 302 | 299 | 6.74 | 281 | 6.84 | -0.10 |
| | Dadri GPS (4*130.19+2*154.51) | 830 | 800 | 183 | 193 | 4.37 | 182 | 4.76 | -0.39 |
| | Anta GPS (3*88.71+1*153.2) | 419 | 409 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Auraiya GPS (4*111.19+2*109.30) | 663 | 653 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 |
| | Dadri Solar(5) | 5 | 1 | 0 | 0 | 0.02 | 1 | 0.03 | 0.00 |
| | Unchahar Solar(10) | 10 | 1 | 0 | 0 | 0.03 | 1 | 0.03 | 0.00 |
| | Singrauli Solar(15) | 15 | 3 | 0 | 0 | 0.07 | 3 | 0.07 | 0.00 |
| | KHEP(4*200) | 800 | 655 | 651 | 0 | 2.31 | 96 | 2.50 | -0.19 |
| | **Sub Total (A)** | **12112** | **10838** | **7015** | **6335** | **147** | **6137** | **149** | **-1** |
| B. NPC | NAPS (2*220) | 440 | 400 | 432 | 444 | 9.70 | 404 | 9.60 | 0.10 |
| | RAPS- B (2*220) | 440 | 375 | 420 | 426 | 9.06 | 377 | 9.00 | 0.06 |
| | RAPS- C (2*220) | 440 | 418 | 443 | 450 | 9.67 | 403 | 10.03 | -0.36 |
| | **Sub Total (B)** | **1320** | **1193** | **1295** | **1320** | **28.43** | **1185** | **28.63** | **-0.20** |
| C. NHPC | Chamera I HPS (3*180) | 540 | 534 | 540 | 0 | 4.23 | 176 | 4.11 | 0.12 |
| | Chamera II HPS (3*100) | 300 | 300 | 303 | 0 | 2.20 | 92 | 2.13 | 0.07 |
| | Chamera III HPS (3*77) | 231 | 235 | 232 | 0 | 1.17 | 49 | 1.17 | 0.01 |
| | Bairasuil HPS(3*60) | 180 | 179 | 183 | 62 | 0.27 | 11 | 2.72 | -2.45 |
| | Salal-HPS (6*115) | 690 | 317 | 445 | 256 | 7.92 | 330 | 7.61 | 0.31 |
| | Tanakpur-HPS (3*40) | 94 | 17 | 16 | 16 | 0.39 | 16 | 0.40 | -0.01 |
| | Uri-I HPS (4*120) | 480 | 464 | 474 | 471 | 11.25 | 469 | 11.13 | 0.12 |
| | Uri-II HPS (4*60) | 240 | 225 | 228 | 229 | 5.43 | 226 | 5.39 | 0.04 |
| | Dhauliganga-HPS (4*70) | 280 | 210 | 216 | 0 | 0.73 | 30 | 0.62 | 0.10 |
| | Dulhasti-HPS (3*130) | 390 | 387 | 408 | 0 | 3.54 | 147 | 3.38 | 0.15 |
| | Sewa-II HPS (3*40) | 120 | 119 | 122 | 119 | 2.86 | 119 | 2.85 | 0.01 |
| | Parbati 3 (4*130) | 520 | 138 | 265 | 0 | 0.61 | 26 | 0.58 | 0.04 |
| | **Sub Total (C )** | **4065** | **3125** | **3431** | **1152** | **41** | **1692** | **42** | **-1** |
| D.SJVNL | NJPC (6*250) | 1500 | 1350 | 1278 | 0 | 6.51 | 271 | 6.58 | -0.08 |
| | Rampur HEP (6*68.67) | 412 | 375 | 375 | 0 | 1.85 | 77 | 1.84 | 0.01 |
| | **Sub Total (D)** | **1912** | **1725** | **1653** | **0** | **8.36** | **348** | **8.42** | **-0.06** |
| E. THDC | Tehri HPS (4*250) | 1000 | 628 | 636 | 0 | 5.83 | 243 | 5.70 | 0.13 |
| | Koteshwar HPS (4*100) | 400 | 114 | 298 | 89 | 2.72 | 113 | 2.73 | -0.01 |
| | **Sub Total (E)** | **1400** | **742** | **934** | **89** | **8.54** | **356** | **8.43** | **0.11** |
| F. BBMB | Bhakra HPS (2*108+3*126+5*157) | 1379 | 448 | 943 | 357 | 10.69 | 446 | 10.74 | -0.05 |
| | Dehar HPS (6*165) | 990 | 197 | 660 | 0 | 4.83 | 201 | 4.73 | 0.10 |
| | Pong HPS (6*66) | 396 | 50 | 165 | 0 | 1.10 | 46 | 1.21 | -0.11 |
| | **Sub Total (F)** | **2765** | **695** | **1768** | **357** | **16.62** | **693** | **16.68** | **-0.05** |
| G. IPP(s)/JV(s) | ALLAIN DUHANGAN HPS(IPP) (2*96) | 192 | 0 | 0 | 0 | 0.46 | 19 | 0.44 | 0.02 |
| | KARCHAM WANGTOO HPS(IPP) (4*250) | 1000 | 0 | 625 | 0 | 3.38 | 141 | 3.58 | -0.20 |
| | Malana Stg-II HPS (2*50) | 100 | 0 | 0 | 0 | 0.28 | 12 | 0.26 | 0.02 |
| | Shree Cement TPS (2*150) | 300 | 0 | 297 | 297 | 6.42 | 267 | 6.44 | -0.02 |
| | Budhil HPS(IPP) (2*35) | 70 | 0 | 0 | 0 | 0.21 | 9 | 0.21 | 0.00 |
| | Sub Total (G ) | 1662 | 0 | 922 | 297 | 10.75 | 448 | 10.92 | -0.18 |
| **H. Total Regional Entities (A-G)** | | **25237** | **18318** | **17017** | **9550** | **260.59** | **10858** | **263.79** | **-3.20** |

| 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 | 160 | 157 | 3.54 | 147 |
| | 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 | -0.08 | -3 |
| | Goindwal(GVK) | | 0 | 0 | 0.00 | 0 |
| | Rajpura (2*700) | 1400 | 330 | 330 | 8.16 | 340 |
| | Talwandi Saboo (2*660) | 1320 | 308 | 308 | 7.88 | 328 |
| | **Thermal (Total)** | **5360** | **798** | **795** | **19.49** | **812** |
| | Total Hydro | 1000 | 325 | 362 | 8.36 | 348 |
| | **Total Punjab** | **6360** | **1123** | **1157** | **27.85** | **1160** |
| **Haryana** | Panipat TPS (4*110+2*210+2*250) | 1367 | 0 | 0 | 0.00 | 0 |
| | DCRTPP (Yamuna nagar) (2*300) | 600 | 540 | 457 | 11.10 | 463 |
| | Faridabad GPS (NTPC) | 432 | 0 | 0 | 0.00 | 0 |
| | RGTPP (khedar) (IPP) (2*600) | 1200 | 469 | 372 | 9.70 | 404 |
| | Magnum Diesel (IPP) | 25 | 0 | 0 | 0.00 | 0 |
| | Jhajjar(CLP) (2*660) | 1320 | 0 | 0 | 0.00 | 0 |
| | **Thermal (Total)** | **4944** | **1009** | **829** | **20.80** | **867** |
| | Total Hydro | 62 | 6 | 18 | 0.28 | 12 |
| | **Total Haryana** | **5006** | **1015** | **847** | **21.08** | **878** |
| **Rajasthan** | kota TPS (2*110+2*195+3*210) | 1240 | 350 | 352 | 8.39 | 350 |
| | suratgarh TPS (6*250) | 1500 | 190 | 194 | 4.54 | 189 |
| | Chabra TPS (4*250) | 1000 | 560 | 565 | 14.03 | 584 |
| | 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 | 204 | 205 | 5.59 | 233 |
| | RAPS A (NPC) (1*100+1*200) | 300 | 0 | 0 | 0.00 | 0 |
| | Barsingsar (NLC) (2*125) | 250 | 171 | 180 | 4.11 | 171 |
| | Giral LTPS (2*125) | 250 | 0 | 0 | 0.00 | 0 |
| | Rajwest LTPS (IPP) (8*135) | 1080 | 530 | 529 | 13.18 | 549 |
| | VS LIGNITE LTPS (IPP) (1*135) | 135 | 0 | 0 | 0.00 | 0 |
| | Kalisindh Thermal(2*600) | 1200 | 813 | 813 | 19.32 | 805 |
| | Kawai(Adani) (2*660) | 1320 | 863 | 860 | 23.12 | 963 |
| | **Thermal (Total)** | **8876** | **3681** | **3698** | **92** | **3845** |
| | Total Hydro | 550 | 32 | 80 | 1.90 | 79 |
| | Wind power | 3214 | 44 | 961 | 12.15 | 506 |
| | Biomass | 99 | 20 | 20 | 0.49 | 20 |
| | Solar | 730 | 0 | 0 | 0.00 | 0 |
| | Renewable/Others (Total) | 4043 | 64 | 981 | 12.64 | 527 |
| | **Total Rajasthan** | **13469** | **3777** | **4759** | **106.82** | **4451** |
| **UP** | Anpara TPS (3*210+2*500) | 1630 | 1360 | 1356 | 25.70 | 1071 |
| | Obra TPS (2*50+2*94+5*200) | 1194 | 436 | 421 | 10.20 | 425 |
| | Paricha TPS (2*110+2*220+2*250) | 1140 | 918 | 979 | 22.90 | 954 |
| | Panki TPS (2*105) | 210 | 68 | 68 | 1.60 | 67 |
| | Harduaganj TPS (1*60+1*105+2*250) | 665 | 302 | 307 | 7.50 | 313 |
| | Tanda TPS (NTPC) (4*110) | 440 | 378 | 384 | 9.24 | 385 |
| | Roza TPS (IPP) (4*300) | 1200 | 765 | 900 | 23.90 | 996 |
| | Anpara-C (IPP) (2*600) | 1200 | 1080 | 1076 | 25.70 | 1071 |
| | Bajaj Energy Pvt.Ltd(IPP) TPS (10*45) | 450 | 0 | 0 | 0.00 | 0 |
| | Anpara-D(2*500) | 500 | 324 | 314 | 6.60 | 275 |
| | Lalitpur TPS(2*660) | 1320 | 303 | 313 | 8.10 | 338 |
| | Bara(2*660) | 1320 | 0 | 0 | 0.00 | 0 |
| | **Thermal (Total)** | **11269** | **5934** | **6118** | **141** | **5893** |
| | Vishnuparyag HPS (IPP)(4*110) | 440 | 65 | 65 | 1.60 | 67 |
| | Alaknanada(4*82.5) | 330 | 0 | 71 | 0.90 | 38 |
| | Other Hydro | 527 | 27 | 2 | 1.80 | 75 |
| | Cogeneration | 981 | 600 | 600 | 14.40 | 600 |
| | **Total UP** | **13547** | **6626** | **6856** | **160** | **6673** |
| **Uttarakhand** | Total Hydro | 1398 | 456 | 186 | 8.14 | 339 |
| | **Total Uttarakhand** | **1398** | **456** | **186** | **8.14** | **339** |
| **Delhi** | Rajghat TPS (2*67.5) | 135 | 0 | 0 | 0.00 | 0 |
| | Delhi Gas Turbine (6x30 + 3x34) | 282 | 36 | 37 | 0.91 | 38 |
| | Pragati Gas Turbine (2x104+ 1x122) | 330 | 0 | 0 | 0.00 | 0 |
| | Rithala GPS (3*36) | 95 | 0 | 0 | 0.00 | 0 |
| | Bawana GPS (4*216+2*253) | 1370 | 0 | 0 | 0.00 | 0 |
| | Badarpur TPS (NTPC) (3*95+2*210) | 705 | 161 | 161 | 3.42 | 142 |
| | Thermal (Total) | 2917 | 197 | 198 | 4.33 | 180 |
| | **Total Delhi** | **2917** | **197** | **198** | **4.33** | **180** |
| **HP** | Baspa HPS (IPP) (3*100) | 300 | 39 | 0 | 0.75 | 31 |
| | Malana HPS (IPP) (2*43) | 86 | 0 | 0 | 0.30 | 13 |
| | Other Hydro | 878 | 280 | 208 | 6.37 | 266 |
| | **Total HP** | **1264** | **319** | **208** | **7.42** | **309** |
| **J & K** | Baglihar HPS (IPP) (3*150) | 450 | 290 | 290 | 6.96 | 290 |
| | Other Hydro/IPP | 560 | 160 | 79 | 3.06 | 127 |
| | Gas/Diesel/Others | 190 | 0 | 0 | 0.00 | 0 |
| | **Total J & K** | **1200** | **450** | **369** | **10.02** | 417 |
| **Total State Control Area Generation** | | **45161** | **13963** | **14580** | **345.79** | **14408** |
| **J. Net Inter Regional Exchange** [Import (+ve)/Export (-ve)] | | | **4718** | **6606** | **148.66** | **6194** |
| **Total Regional Availability(Gross)** | | **70398** | **35698** | **30736** | **755.03** | **31460** |

**IV. Total Hydro Generation:**

| | | | | | |
|---|---|---|---|---|---|
| **Regional Entities Hydro** | **12234** | **9061** | **1598** | **80.55** | **3356** |
| **State Control Area Hydro** | **6581** | **1680** | **1361** | **40** | **1684** |
| **Total Regional Hydro** | **18815** | **10741** | **2959** | **120.96** | **5040** |

**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) | -150 | -150 | 0 | 150 | 0.00 | 3.63 | -3.63 |
| 765 KV Gwalior-Agra (D/C) | 1948 | 2576 | 3067 | 0 | 58.15 | 0.00 | 58.15 |
| 400 KV Zerda-Kankroli | -50 | -220 | 0 | 306 | 0.00 | 3.84 | -3.84 |
| 400 KV Zerda-Bhinmal | -60 | -194 | 28 | 314 | 0.00 | 2.63 | -2.63 |
| 220 KV Auraiya-Malanpur | -24 | -14 | 0 | 30 | 0.00 | 0.08 | -0.08 |
| 220 KV Badod-Kota/Morak | -36 | -45 | 34 | 52 | 0.00 | 0.52 | -0.52 |
| Mundra-Mohindergarh(HVDC Bipole) | 2003 | 2497 | 2506 | 0 | 52.58 | 0.00 | 52.58 |
| 400 KV Vindhyachal - Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 kV Phagi-Gwalior (D/C) | 582 | 848 | 494 | 0 | 18.91 | 0.00 | 18.91 |
| **Sub Total WR** | **4213** | **5298** | | | **129.64** | **10.70** | **118.94** |
| Pusauli Bypass/HVDC | 400 | 400 | 400 | 0 | 8.81 | 0.00 | 8.81 |
| 400 KV MZP- GKP (D/C) | -478 | -232 | 0 | 478 | 0.00 | 6.98 | -6.98 |
| 400 KV Patna-Balia(D/C) X 2 | 184 | 247 | 605 | 0 | 8.91 | 0.00 | 8.91 |
| 400 KV B'Sharif-Balia (D/C) | -202 | -60 | 0 | 202 | 0.00 | 2.52 | -2.52 |
| 765 KV Gaya-Balia | 93 | 209 | 241 | 0 | 2.32 | 0.00 | 2.32 |
| 765 KV Gaya-Varanasi -1 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 220 KV Pusauli-Sahupuri | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 132 KV K'nasa-Sahupuri | 0 | 0 | 0 | 0 | 0.96 | 0.00 | 0.96 |
| 132 KV Son Ngr-Rihand | -13 | -28 | 0 | 30 | 0.00 | 0.62 | -0.62 |
| 132 KV Garhwa-Rihand | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 |
| 765 KV Sasaram - Fatehpur | -351 | -164 | 0 | 351 | 0.00 | 3.32 | -3.32 |
| 400 KV Barh -GKP (D/C) | 386 | 450 | 546 | 0 | 10.55 | 0.00 | 10.55 |
| **Sub Total ER** | **19** | **822** | | | **31.56** | **13.44** | **18.12** |
| +/- 800 KV BiswanathChariali-Agra | 486 | 486 | 486 | 0 | 11.59 | 0.00 | 11.59 |
| **Sub Total NER** | **486** | **486** | | | **11.59** | **0.00** | **11.59** |
| **Total IR Exch** | **4718** | **6606** | | | **172.79** | **24.13** | **148.66** |

**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 |
| 31.30 | 0.11 | 31.42 | 1.23 | -8.41 | -1.25 | 6.20 | 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 |
| 31.41 | 116.36 | 147.77 | 29.71 | 118.94 | 148.66 | -1.69 | 2.58 | 0.89 |

**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 | -30 | -31 | 0 | 33 | 0 | 1 | -0.67 |

**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 | 0.00 | 0.56 | 30.13 | 64.63 | 23.90 | 10.09 | 0.88 | 0.00 |

| <---------- 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) | |
| 50.26 | 19.06 | 49.86 | 6.32 | 50.03 | 0.043 | 0.058 | 50.28 | 50.02 | 35.37 |

**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 | 17:16 | 399 | 19:51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gorakhpur | 400 | 414 | 03:45 | 397 | 18:59 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bareilly(PG)400kV | 400 | 419 | 03:59 | 403 | 12:17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Kanpur | 400 | 419 | 03:59 | 403 | 19:09 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dadri | 400 | 427 | 04:01 | 408 | 19:18 | 0.0 | 0.0 | 52.6 | 0.0 | 52.6 |
| Ballabhgarh | 400 | 433 | 04:01 | 412 | 19:11 | 0.0 | 0.0 | 77.4 | 12.6 | 77.4 |
| Bawana | 400 | 429 | 01:56 | 409 | 19:12 | 0.0 | 0.0 | 60.5 | 0.0 | 60.5 |
| Bassi | 400 | 427 | 16:02 | 406 | 22:19 | 0.0 | 0.0 | 39.9 | 0.0 | 39.9 |
| Hissar | 400 | 423 | 01:54 | 404 | 19:12 | 0.0 | 0.0 | 16.2 | 0.0 | 16.2 |
| Moga | 400 | 421 | 01:34 | 400 | 19:18 | 0.0 | 0.0 | 1.4 | 0.0 | 1.4 |
| Abdullapur | 400 | 429 | 02:51 | 401 | 19:19 | 0.0 | 0.0 | 28.3 | 0.0 | 28.3 |
| Nalagarh | 400 | 436 | 16:01 | 412 | 19:17 | 0.0 | 0.0 | 88.8 | 32.0 | 88.8 |
| Kishenpur | 400 | 426 | 02:53 | 403 | 19:06 | 0.0 | 0.0 | 23.5 | 0.0 | 23.5 |
| Wagoora | 400 | 404 | 03:43 | 378 | 19:40 | 2.2 | 27.1 | 0.0 | 0.0 | 2.2 |
| Amritsar | 400 | 430 | 01:33 | 408 | 19:04 | 0.0 | 0.0 | 47.1 | 0.0 | 47.1 |
| Kashipur | 400 | 0 | 00:00 | 0 | 00:00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hamirpur | 400 | 428 | 03:45 | 408 | 19:03 | 0.0 | 0.0 | 81.2 | 0.0 | 81.2 |
| Rishikesh | 400 | 0 | 00:00 | 0 | 00:00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**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 | 778 | 17:03 | 738 | 18:59 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 |
| Balia | 765 | 767 | 03:46 | 739 | 18:58 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 |
| Moga | 765 | 800 | 01:54 | 763 | 19:18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Agra | 765 | 796 | 16:01 | 758 | 20:46 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bhiwani | 765 | 807 | 16:00 | 778 | 19:06 | 0.0 | 0.0 | 33.2 | 0.0 | 33.2 |
| Unnao | 765 | 766 | 08:53 | 739 | 20:37 | 0.0 | 5.7 | 0.0 | 0.0 | 0.0 |
| Lucknow | 765 | 784 | 17:03 | 756 | 18:58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Meerut | 765 | 808 | 00:59 | 769 | 19:10 | 0.0 | 0.0 | 17.6 | 0.0 | 17.6 |
| Jhatikara | 765 | 812 | 16:02 | 776 | 19:07 | 0.0 | 0.0 | 43.9 | 0.0 | 43.9 |
| Bareilly 765 kV | 765 | 788 | 17:03 | 759 | 12:26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Anta | 765 | 784 | 16:01 | 765 | 22:58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Phagi | 765 | 794 | 15:59 | 757 | 22:58 | 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 | 481.68 | 495.33 | 408.47 | 468.02 | 201.62 | 335.92 |
| Pong | 426.72 | 384.05 | 396.82 | 157.28 | 402.37 | 273.51 | 74.11 | 68.31 |
| Tehri | 829.79 | 740.04 | 758.10 | 105.63 | 775.75 | 268.00 | 50.00 | 196.00 |
| Koteshwar | 612.50 | 598.50 | 611.01 | 5.07 | 611.20 | 5.20 | 196.00 | 178.98 |
| Chamera-I | 760.00 | 748.75 | 755.45 | 0.00 | 0.00 | 0.00 | 127.33 | 116.77 |
| Rihand | 268.22 | 252.98 | 844.00 | 174.00 | 846.00 | 176.00 | 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 | 496.96 | 5.80 | 507.72 | 3.50 | 143.32 | 218.12 |

*** 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 | 5 | 45 | 0 | -602 | 57 | 0 | -2.10 | 1.33 | -0.77 |
| Delhi | -711 | -50 | 0 | -631 | 306 | 0 | -15.78 | 3.71 | -12.08 |
| Haryana | -167 | -337 | 0 | -192 | 65 | 0 | -5.29 | 0.38 | -4.91 |
| HP | 30 | 33 | 0 | 82 | -650 | 0 | 2.44 | -6.60 | -4.15 |
| J&K | 397 | -10 | 0 | 311 | 39 | 0 | 7.85 | -0.59 | 7.26 |
| CHD | 0 | -15 | 0 | 0 | -20 | 0 | 0.00 | -0.27 | -0.27 |
| Rajasthan | -7 | 312 | 0 | -7 | 269 | 0 | 0.60 | 6.36 | 6.97 |
| UP | 124 | 679 | 0 | 193 | 679 | 0 | 0.70 | 7.43 | 8.12 |
| Uttarakhand | 194 | -51 | 0 | 194 | 49 | 0 | 4.82 | -0.34 | 4.49 |
| **Total** | **-135** | **607** | **0** | **-652** | **794** | **0** | **-6.76** | **11.40** | **4.65** |

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

| State | Bilateral (MW) | | IEX (MW) | | PXIL (MW) | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Maximum | Minimum | Maximum | Minimum |
| Punjab | 5 | -602 | 100 | 14 | 0 | 0 |
| Delhi | -622 | -757 | 306 | -105 | 0 | 0 |
| Haryana | -167 | -394 | 155 | -416 | 0 | 0 |
| HP | 192 | -13 | 33 | -972 | 0 | 0 |
| J&K | 397 | 210 | 39 | -238 | 0 | 0 |
| CHD | 0 | 0 | 0 | -51 | 0 | 0 |
| Rajasthan | 186 | -7 | 312 | -144 | 0 | 0 |
| UP | 260 | -118 | 777 | 0 | 0 | 0 |
| Uttarakhand | 223 | 194 | 58 | -357 | 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 24.03.2016 :**
Normal

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

**XVI. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**
*0.00*
*0.00*
*0.00*

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

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

**Report for : 24.03.2016** **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**