

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पब्लिसिटी की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 08.06.2016

Date of Reporting : 09.06.2016

I. Regional Availability/Demand:

| Evening Peak (20:00 Hrs) MW |          |             |            | Off Peak (03:00 Hrs) MW |          |             |            | Day Energy (Net MU) |          |
|-----------------------------|----------|-------------|------------|-------------------------|----------|-------------|------------|---------------------|----------|
| Demand Met                  | Shortage | Requirement | Freq* (Hz) | Demand Met              | Shortage | Requirement | Freq* (Hz) | Demand Met          | Shortage |
| 43617                       | 789      | 44405       | 50.08      | 43433                   | 281      | 43714       | 50.03      | 1067.3              | 9.41     |

\* 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:

| 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       | 65.17                                    | 10.36        |                     | 75.53         | 87.98                    | 89.22                  | 1.24         | 164.75               | 0.00             |
| Haryana      | 37.79                                    | 0.62         |                     | 38.41         | 116.28                   | 114.72                 | -1.56        | 153.13               | 0.00             |
| Rajasthan    | 118.31                                   | 0.00         | 38.03               | 156.34        | 60.99                    | 60.50                  | -0.49        | 216.84               | 0.00             |
| Delhi        | 19.21                                    |              |                     | 19.21         | 97.72                    | 96.93                  | -0.79        | 116.14               | 0.07             |
| UP           | 158.16                                   | 15.50        |                     | 173.66        | 143.36                   | 141.30                 | -2.06        | 314.96               | 0.00             |
| Uttarakhand  |  | 16.19        |                     | 16.19         | 21.37                    | 22.39                  | 1.02         | 38.58                | 0.14             |
| HP           |  | 18.01        |                     | 18.01         | 5.47                     | 6.16                   | 0.69         | 24.18                | 1.41             |
| J & K        |  | 21.87        | 0.00                | 21.87         | 15.78                    | 11.20                  | -4.58        | 33.07                | 7.79             |
| Chandigarh   |  |              |                     | 0.00          | 5.77                     | 5.69                   | 0.27         | 5.69                 | 0.00             |
| <b>Total</b> | <b>398.64</b>                            | <b>82.55</b> | <b>38.03</b>        | <b>519.21</b> | <b>554.71</b>            | <b>548.12</b>          | <b>-6.25</b> | <b>1067.33</b>       | <b>9.41</b>      |

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

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

| State        | Evening Peak (20:00 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       | 5747                        | 0          | 29          | 344                 | 5205                    | 0          | 149        | 370                 | 5959                                  | 22:00         | 0          |
| Haryana      | 6771                        | 0          | -65         | 869                 | 6303                    | 0          | -141       | 1091                | 7462                                  | 23:00         | 0          |
| Rajasthan    | 7559                        | 0          | -356        | -82                 | 9499                    | 0          | 401        | 81                  | 9682                                  | 24:00         | 0          |
| Delhi        | 4852                        | 0          | -209        | 512                 | 4745                    | 0          | 51         | 238                 | 5829                                  | 17:00         | 4          |
| UP           | 13860                       | 300        | 468         | 1381                | 13477                   | 0          | -116       | 1647                | 14899                                 | 22:00         | 0          |
| Uttarakhand  | 1802                        | 40         | 77          | 216                 | 1485                    | 0          | 16         | 127                 | 1815                                  | 21:00         | 40         |
| HP           | 987                         | 0          | -9          | -1244               | 900                     | 0          | 46         | -1316               | 1165                                  | 8:00          | 0          |
| J&K          | 1795                        | 449        | -62         | -479                | 1593                    | 281        | 170        | -660                | 1813                                  | 21:00         | 453        |
| Chandigarh   | 243                         | 0          | -19         | 10                  | 225                     | 0          | 12         | 0                   | 271                                   | 16:00         | 0          |
| <b>Total</b> | <b>43617</b>                | <b>789</b> | <b>-146</b> | <b>1528</b>         | <b>43433</b>            | <b>281</b> | <b>589</b> | <b>1578</b>         | <b>46968</b>                          | <b>23:00</b>  | <b>319</b> |

\$ 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 :

| Station/<br>Constituent                 | Inst. Capacity<br>(Effective) MW | Declared<br>Capacity(MW) | Peak MW<br>(Gross) | Off Peak MW<br>(Gross) | Energy<br>(Net MU) | Average<br>Sentout(MW) | Schedule<br>Net MU | UI     |              |
|---|----------------------------------|--------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|--------|--------------|
|   |                                  |                          |                    |                        |                    |                        |                    | Net MU | Net MU       |
| <b>A. NTPC</b>                          |                                  |                          |                    |                        |                    |                        |                    |        |              |
| Singrauli STPS (5*200+2*500)            | 2000                             | 1890                     | 1920               | 2048                   | 43.75              | 1823                   | 43.35              |        | 0.39         |
| Rihand I STPS (2*500)                   | 1000                             | 420                      | 476                | 445                    | 9.31               | 388                    | 9.08               |        | 0.23         |
| Rihand II STPS (2*500)                  | 1000                             | 946                      | 939                | 995                    | 21.10              | 879                    | 20.94              |        | 0.16         |
| Rihand III STPS (2*500)                 | 1000                             | 946                      | 965                | 948                    | 20.52              | 855                    | 21.18              |        | -0.66        |
| Dadri I STPS (4*210)                    | 840                              | 805                      | 615                | 467                    | 12.05              | 502                    | 12.30              |        | -0.25        |
| Dadri II STPS (2*490)                   | 980                              | 960                      | 738                | 701                    | 16.79              | 700                    | 17.67              |        | -0.88        |
| Unchahar I TPS (2*210)                  | 420                              | 350                      | 277                | 260                    | 6.55               | 273                    | 6.73               |        | -0.18        |
| Unchahar II TPS (2*210)                 | 420                              | 400                      | 311                | 254                    | 6.98               | 291                    | 7.70               |        | -0.72        |
| Unchahar III TPS (1*210)                | 210                              | 200                      | 158                | 133                    | 3.59               | 150                    | 3.82               |        | -0.23        |
| ISTPP (Jhajjar) (3*500)                 | 1500                             | 1425                     | 1284               | 1064                   | 23.54              | 981                    | 24.87              |        | -1.33        |
| Dadri GPS (4*130.19+2*154.51)           | 830                              | 780                      | 285                | 378                    | 7.07               | 295                    | 7.20               |        | -0.13        |
| Anta GPS (3*88.71+1*153.2)              | 419                              | 401                      | 188                | 237                    | 4.95               | 206                    | 4.97               |        | -0.02        |
| Auraiya GPS (4*111.19+2*109.30)         | 663                              | 623                      | 32                 | 0                      | 0.20               | 8                      | 0.28               |        | -0.09        |
| Dadri Solar(5)                          | 5                                | 1                        | 0                  | 0                      | 0.02               | 1                      | 0.02               |        | 0.00         |
| Unchahar Solar(10)                      | 10                               | 2                        | 0                  | 0                      | 0.06               | 2                      | 0.04               |        | 0.01         |
| Singrauli Solar(15)                     | 15                               | 3                        | 0                  | 0                      | 0.07               | 3                      | 0.06               |        | 0.01         |
| KHEP(4*200)                             | 800                              | 872                      | 870                | 869                    | 15.16              | 632                    | 15.00              |        | 0.16         |
| <b>Sub Total (A)</b>                    | <b>12112</b>                     | <b>11024</b>             | <b>9058</b>        | <b>8799</b>            | <b>192</b>         | <b>7987</b>            | <b>195</b>         |        | <b>-3.54</b> |
| <b>B. NPC</b>                           |                                  |                          |                    |                        |                    |                        |                    |        |              |
| NAPS (2*220)                            | 440                              | 177                      | 213                | 219                    | 4.57               | 190                    | 4.25               |        | 0.32         |
| RAPS- B (2*220)                         | 440                              | 371                      | 407                | 410                    | 8.72               | 363                    | 8.90               |        | -0.18        |
| RAPS- C (2*220)                         | 440                              | 420                      | 435                | 438                    | 9.28               | 387                    | 10.08              |        | -0.80        |
| <b>Sub Total (B)</b>                    | <b>1320</b>                      | <b>968</b>               | <b>1055</b>        | <b>1067</b>            | <b>22.57</b>       | <b>940</b>             | <b>23.23</b>       |        | <b>-0.67</b> |
| <b>C. NHPC</b>                          |                                  |                          |                    |                        |                    |                        |                    |        |              |
| Chamera I HPS (3*180)                   | 540                              | 547                      | 547                | 0                      | 10.05              | 419                    | 10.00              |        | 0.05         |
| Chamera II HPS (3*100)                  | 300                              | 300                      | 311                | 312                    | 7.40               | 308                    | 7.20               |        | 0.20         |
| Chamera III HPS (3*77)                  | 231                              | 223                      | 227                | 226                    | 5.41               | 226                    | 5.34               |        | 0.07         |
| Bairasuli HPS(3*60)                     | 180                              | 179                      | 182                | 63                     | 2.22               | 93                     | 2.18               |        | 0.04         |
| Salal-HPS (6*115)                       | 690                              | 672                      | 685                | 675                    | 16.22              | 676                    | 16.12              |        | 0.10         |
| Tanakpur-HPS (3*31.4)                   | 94                               | 43                       | 59                 | 45                     | 1.06               | 44                     | 1.02               |        | 0.04         |
| Uri-I HPS (4*120)                       | 480                              | 475                      | 475                | 473                    | 11.48              | 478                    | 11.40              |        | 0.08         |
| Uri-II HPS (4*60)                       | 240                              | 235                      | 241                | 239                    | 5.69               | 237                    | 5.69               |        | 0.00         |
| Dhauliganga-HPS (4*70)                  | 280                              | 280                      | 285                | 144                    | 3.81               | 159                    | 3.72               |        | 0.09         |
| Dulhasti-HPS (3*130)                    | 390                              | 387                      | 404                | 403                    | 9.49               | 395                    | 9.29               |        | 0.20         |
| Sewa-II HPS (3*40)                      | 120                              | 119                      | 40                 | 125                    | 1.78               | 74                     | 1.76               |        | 0.02         |
| Parbati 3 (4*130)                       | 520                              | 169                      | 132                | 130                    | 2.11               | 88                     | 2.08               |        | 0.03         |
| <b>Sub Total (C)</b>                    | <b>4065</b>                      | <b>3623</b>              | <b>3589</b>        | <b>2835</b>            | <b>77</b>          | <b>3197</b>            | <b>76</b>          |        | <b>0.93</b>  |
| <b>D. SJVNL</b>                         |                                  |                          |                    |                        |                    |                        |                    |        |              |
| NJPC (6*250)                            | 1500                             | 1605                     | 1626               | 1631                   | 38.69              | 1612                   | 38.52              |        | 0.17         |
| Rampur HEP (6*68.67)                    | 412                              | 437                      | 448                | 375                    | 10.66              | 444                    | 10.52              |        | 0.14         |
| <b>Sub Total (D)</b>                    | <b>1912</b>                      | <b>2042</b>              | <b>2074</b>        | <b>2006</b>            | <b>49.35</b>       | <b>2056</b>            | <b>49.04</b>       |        | <b>0.31</b>  |
| <b>E. THDC</b>                          |                                  |                          |                    |                        |                    |                        |                    |        |              |
| Tehri HPS (4*250)                       | 1000                             | 177                      | 135                | 134                    | 3.85               | 160                    | 4.01               |        | -0.16        |
| Koteshwar HPS (4*100)                   | 400                              | 85                       | 183                | 63                     | 2.05               | 86                     | 2.05               |        | 0.00         |
| <b>Sub Total (E)</b>                    | <b>1400</b>                      | <b>263</b>               | <b>318</b>         | <b>197</b>             | <b>5.90</b>        | <b>246</b>             | <b>6.06</b>        |        | <b>-0.16</b> |
| <b>F. BBMB</b>                          |                                  |                          |                    |                        |                    |                        |                    |        |              |
| Bhakra HPS (2*108+3*126+5*157)          | 1379                             | 963                      | 1194               | 788                    | 23.12              | 963                    | 23.11              |        | 0.00         |
| Dehar HPS (6*165)                       | 990                              | 608                      | 825                | 660                    | 14.62              | 609                    | 14.59              |        | 0.03         |
| Pong HPS (6*66)                         | 396                              | 77                       | 138                | 92                     | 1.81               | 75                     | 1.85               |        | -0.04        |
| <b>Sub Total (F)</b>                    | <b>2765</b>                      | <b>1648</b>              | <b>2157</b>        | <b>1540</b>            | <b>39.54</b>       | <b>1648</b>            | <b>39.55</b>       |        | <b>-0.01</b> |
| <b>G. IPP(s)/JV(s)</b>                  |                                  |                          |                    |                        |                    |                        |                    |        |              |
| ALLAIN DUHANGAN HPS(IPP) (2*96)         | 192                              | 0                        | 132                | 132                    | 2.85               | 119                    | 2.71               |        | 0.14         |
| KARCHAM WANGTOO HPS(IPP) (4*250)        | 1000                             | 0                        | 1089               | 1089                   | 24.74              | 1031                   | 24.93              |        | -0.20        |
| Malana Stg-II HPS (2*50)                | 100                              | 0                        | 65                 | 60                     | 1.43               | 59                     | 1.34               |        | 0.08         |
| Shree Cement TPS (2*150)                | 300                              | 0                        | 140                | 144                    | 3.39               | 141                    | 3.46               |        | -0.07        |
| Budhil HPS(IPP) (2*35)                  | 70                               | 0                        | 59                 | 68                     | 1.58               | 66                     | 1.66               |        | -0.08        |
| <b>Sub Total (G)</b>                    | <b>1662</b>                      | <b>0</b>                 | <b>1486</b>        | <b>1493</b>            | <b>33.99</b>       | <b>1416</b>            | <b>34.11</b>       |        | <b>-0.12</b> |
| <b>H. Total Regional Entities (A-G)</b> | <b>25237</b>                     | <b>19568</b>             | <b>19736</b>       | <b>17937</b>           | <b>419.79</b>      | <b>17491</b>           | <b>423.04</b>      |        | <b>-3.25</b> |

| 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                              | 320          | 320          | 8.00           | 333                  |
|   | Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)        | 460                               | 200          | 200          | 4.77           | 199                  |
|   | Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)     | 920                               | 800          | 593          | 16.23          | 676                  |
|   | Goindwal(GVK) (2*270)                             | 540                               | 0            | 0            | 0.00           | 0                    |
|   | Rajpura (2*700)                                   | 1400                              | 1320         | 1020         | 28.21          | 1175                 |
|   | Talwandi Saboo (3*660)                            | 1980                              | 480          | 308          | 7.96           | 332                  |
|   | <b>Thermal (Total)</b>                            | <b>6560</b>                       | <b>3120</b>  | <b>2441</b>  | <b>65.17</b>   | <b>2715</b>          |
|   | Total Hydro                                       | 1000                              | 375          | 481          | 10.36          | 432                  |
|   | <b>Total Punjab</b>                               | <b>7560</b>                       | <b>3495</b>  | <b>2922</b>  | <b>75.53</b>   | <b>3147</b>          |
|   | Haryana   | Panipat TPS (2*210+2*250)         | 920          | 0            | 0              | 0.00                 |
| DCRTPP (Yamuna nagar) (2*300)                                     |   | 600                               | 0            | 0            | 0.00           | 0                    |
| Faridabad GPS (NTPC)(2*137.75+1*156)                              |   | 432                               | 178          | 191          | 4.09           | 170                  |
| RGTPP (khedar) (IPP) (2*600)                                      |   | 1200                              | 384          | 382          | 9.71           | 405                  |
| Magnum Diesel (IPP)   |   | 25                                | 0            | 0            | 0.00           | 0                    |
| Jhajjar(CLP) (2*660)  |   | 1320                              | 1124         | 1041         | 23.99          | 1000                 |
| <b>Thermal (Total)</b>  |   | <b>4497</b>                       | <b>1686</b>  | <b>1614</b>  | <b>37.79</b>   | <b>1575</b>          |
| Total Hydro   |   | 62                                | 17           | 29           | 0.62           | 26                   |
| <b>Total Haryana</b>  |   | <b>4559</b>                       | <b>1703</b>  | <b>1643</b>  | <b>38.41</b>   | <b>1600</b>          |
| Rajasthan   |   | kota TPS (2*110+2*195+3*210)      | 1240         | 992          | 999            | 24.30                |
|   | suratgarh TPS (6*250)                             | 1500                              | 960          | 1117         | 23.01          | 959                  |
|   | Chabra TPS (4*250)                                | 1000                              | 561          | 595          | 14.04          | 585                  |
|   | 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                               | 183          | 178          | 4.21           | 175                  |
|   | RAPS A (NPC) (1*100+1*200)                        | 300                               | 136          | 138          | 3.42           | 142                  |
|   | Barsingar (NLC) (2*125)                           | 250                               | 79           | 80           | 1.74           | 73                   |
|   | Giral LTPS (2*125)                                | 250                               | 0            | 0            | 0.00           | 0                    |
|   | Rajwest LTPS (IPP) (8*135)                        | 1080                              | 448          | 720          | 13.54          | 564                  |
|   | VS LIGNITE LTPS (IPP) (1*135)                     | 135                               | 0            | 0            | 0.00           | 0                    |
|   | Kalisindh Thermal(2*600)                          | 1200                              | 408          | 409          | 9.80           | 409                  |
|   | Kawai(Adani) (2*660)                              | 1320                              | 869          | 907          | 24.26          | 1011                 |
|   | <b>Thermal (Total)</b>                            | <b>8876</b>                       | <b>4636</b>  | <b>5143</b>  | <b>118</b>     | <b>4930</b>          |
|   | Total Hydro                                       | 550                               | 0            | 0            | 0.00           | 0                    |
|   | Wind power  | 3214                              | 1046         | 1571         | 34.31          | 1430                 |
|   | Biomass   | 99                                | 14           | 14           | 0.34           | 14                   |
|   | Solar   | 730                               | 0            | 0            | 3.38           | 141                  |
|   | Renewable/Others (Total)                          | 4043                              | 1060         | 1585         | 38.03          | 1584                 |
|   | <b>Total Rajasthan</b>                            | <b>13469</b>                      | <b>5696</b>  | <b>6728</b>  | <b>156.34</b>  | <b>6514</b>          |
|   | UP  | Anpara TPS (3*210+2*500)          | 1630         | 1508         | 1411           | 33.08                |
| Obra TPS (2*50+2*94+5*200)  |   | 1194                              | 563          | 374          | 11.85          | 494                  |
| Paricha TPS (2*110+2*220+2*250)                                   |   | 1160                              | 847          | 798          | 20.67          | 861                  |
| Panki TPS (2*105)   |   | 210                               | 131          | 135          | 3.19           | 133                  |
| Harduaganj TPS (1*60+1*105+2*250)                                 |   | 665                               | 538          | 465          | 11.83          | 493                  |
| Tanda TPS (NTPC) (4*110)  |   | 440                               | 390          | 270          | 8.11           | 338                  |
| Roza TPS (IPP) (4*300)  |   | 1200                              | 738          | 734          | 18.13          | 755                  |
| Anpara-C (IPP) (2*600)  |   | 1200                              | 1044         | 1080         | 23.21          | 967                  |
| Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)                             |   | 450                               | 283          | 285          | 6.79           | 283                  |
| Anpara-D(2*500)   |   | 1000                              | 0            | 0            | 1.46           | 61                   |
| Lalitpur TPS(3*660)   |   | 1980                              | 353          | 353          | 8.78           | 366                  |
| Bara(2*660)   |   | 1320                              | 539          | 369          | 11.06          | 461                  |
| <b>Thermal (Total)</b>  |   | <b>12449</b>                      | <b>6934</b>  | <b>6274</b>  | <b>158</b>     | <b>6590</b>          |
| Vishnuparyag HPS (IPP)(4*110)                                     |   | 440                               | 435          | 435          | 10.40          | 433                  |
| Alaknanda(4*82.5)   |   | 330                               | 171          | 172          | 4.06           | 169                  |
| Other Hydro   |   | 527                               | 48           | 32           | 1.04           | 43                   |
| Cogeneration  |   | 981                               | 0            | 0            | 0.00           | 0                    |
| <b>Total UP</b>   |   | <b>14727</b>                      | <b>7588</b>  | <b>6913</b>  | <b>174</b>     | <b>7236</b>          |
| Uttarakhand   |   | Total Hydro                       | 1398         | 705          | 676            | 16.19                |
|   | Total Gas   | 225                               | 0            | 0            | 0.00           | 0                    |
|   | <b>Total Uttarakhand</b>                          | <b>1623</b>                       | <b>705</b>   | <b>676</b>   | <b>16</b>      | <b>674</b>           |
| Delhi   | Rajghat TPS (2*67.5)                              | 135                               | 0            | 0            | 0.00           | 0                    |
|   | Delhi Gas Turbine (6x30 + 3x34)                   | 282                               | 171          | 136          | 4.09           | 171                  |
|   | Pragati Gas Turbine (2x104+ 1x122)                | 330                               | 302          | 140          | 4.49           | 187                  |
|   | Rithala GPS (3*36)                                | 95                                | 0            | 0            | 0.00           | 0                    |
|   | Bawana GPS (4*216+2*253)                          | 1370                              | 253          | 250          | 6.08           | 253                  |
|   | Badarpur TPS (NTPC) (3*95+2*210)                  | 705                               | 330          | 336          | 4.55           | 189                  |
|   | <b>Thermal (Total)</b>                            | <b>2917</b>                       | <b>1056</b>  | <b>862</b>   | <b>19.21</b>   | <b>801</b>           |
|   | <b>Total Delhi</b>                                | <b>2917</b>                       | <b>1056</b>  | <b>862</b>   | <b>19.21</b>   | <b>801</b>           |
| HP  | Baspa HPS (IPP) (3*100)                           | 300                               | 334          | 303          | 7.53           | 314                  |
|   | Malana HPS (IPP) (2*43)                           | 86                                | 45           | 45           | 1.24           | 52                   |
|   | Other Hydro                                       | 878                               | 378          | 417          | 9.24           | 385                  |
|   | <b>Total HP</b>                                   | <b>1264</b>                       | <b>757</b>   | <b>765</b>   | <b>18.01</b>   | <b>751</b>           |
| J & K   | Baglihar HPS (IPP) (3*150+2*150)                  | 750                               | 733          | 733          | 17.59          | 733                  |
|   | Other Hydro/IPP                                   | 560                               | 184          | 176          | 4.28           | 178                  |
|   | Gas/Diesel/Others                                 | 190                               | 0            | 0            | 0.00           | 0                    |
|   | <b>Total J &amp; K</b>                            | <b>1500</b>                       | <b>917</b>   | <b>909</b>   | <b>21.87</b>   | <b>911</b>           |
| <b>Total State Control Area Generation</b>                        |   | <b>47619</b>                      | <b>21917</b> | <b>21418</b> | <b>519.21</b>  | <b>21634</b>         |
| <b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b> |   |                                   | <b>6714</b>  | <b>7185</b>  | <b>144.78</b>  | <b>6033</b>          |
| <b>Total Regional Availability(Gross)</b>                         |   | <b>72856</b>                      | <b>48367</b> | <b>46540</b> | <b>1083.78</b> | <b>45158</b>         |

| IV. Total Hydro Generation: |  |              |              |              |               |              |
|-----------------------------|--|--------------|--------------|--------------|---------------|--------------|
| Regional Entities Hydro     |  | 12234        | 10294        | 8727         | 215.71        | 8988         |
| State Control Area Hydro    |  | 7106         | 3425         | 3499         | 83            | 3439         |
| <b>Total Regional Hydro</b> |  | <b>19340</b> | <b>13719</b> | <b>12226</b> | <b>298.26</b> | <b>12427</b> |

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

| Element                            | Peak(20:00 Hrs) | Off Peak(03:00 Hrs) | Maximum Interchange (MW) |        | Energy (MU)   |              | Net Energy MU |
|------------------------------------|-----------------|---------------------|--------------------------|--------|---------------|--------------|---------------|
|                                    | MW              | MW                  | Import                   | Export | Import        | Export       |               |
| Vindhychal(HVDC B/B)               | -200            | -50                 | 0                        | 250    | 0.00          | 2.73         | -2.73         |
| 765 KV Gwalior-Agra (D/C)          | 2869            | 2605                | 2908                     | 0      | 53.57         | 0.00         | 53.57         |
| 400 KV Zerda-Kankroli              | -208            | -234                | 0                        | 411    | 0.00          | 7.39         | -7.39         |
| 400 KV Zerda-Bhinmal               | -165            | -215                | 0                        | 392    | 0.00          | 6.20         | -6.20         |
| 220 KV Auraiya-Malanpur            | 5               | -2                  | 0                        | 47     | 0.00          | 0.31         | -0.31         |
| 220 KV Badod-Kota/Morak            | -14             | -42                 | 35                       | 92     | 0.00          | 0.46         | -0.46         |
| Mundra-Mohindergarh(HVDC Bipole)   | 1803            | 2298                | 2505                     | 0.00   | 55.36         | 0.00         | 55.36         |
| 400 KV Vindhychal - Rihand         | 0               | 0                   | 0                        | 0      | 0.00          | 0.00         | 0.00          |
| 765 kV Phagi-Gwalior (D/C)         | 484             | 637                 | 704                      | 0      | 12.66         | 0.00         | 12.66         |
| <b>Sub Total WR</b>                | <b>4574</b>     | <b>4997</b>         |                          |        | <b>121.59</b> | <b>17.08</b> | <b>104.51</b> |
| Pusauli Bypass/HVDC                | 200             | 200                 | 200                      | 0      | 4.52          | 0.00         | 4.52          |
| 400 KV MZP- GKP (D/C)              | 156             | 293                 | 418                      | 0      | 5.69          | 0.00         | 5.69          |
| 400 KV Patna-Balia(D/C) X 2        | 570             | 608                 | 772                      | 0      | 13.89         | 0.00         | 13.89         |
| 400 KV B'Sharif-Balia (D/C)        | 60              | 50                  | 147                      | 0      | 1.26          | 0.00         | 1.26          |
| 765 KV Gaya-Balia                  | 245             | 188                 | 365                      | 0      | 1.84          | 0.00         | 1.84          |
| 765 KV Gaya-Varanasi (D/C)         | 178             | 124                 | 178                      | 19     | 1.90          | 0.00         | 1.90          |
| 220 KV Pusauli-Sahupuri            | 191             | 191                 | 220                      | 0      | 4.33          | 0.00         | 4.33          |
| 132 KV K'nasa-Sahupuri             | -20             | 0                   | 0                        | 30     | 0.00          | 0.32         | -0.32         |
| 132 KV Son Ngr-Rihand              | -26             | -22                 | 0                        | 40     | 0.00          | 0.56         | -0.56         |
| 132 KV Garhwa-Rihand               | 0               | 0                   | 0                        | 0      | 0.00          | 0.00         | 0.00          |
| 765 KV Sasaram - Fatehpur          | 29              | 53                  | 151                      | 0      | 0.00          | 3.16         | -3.16         |
| 400 KV Barh -GKP (D/C)             | 488             | 428                 | 510                      | 0      | 12.44         | 0.00         | 12.44         |
| 400 kV B'Sharif - Varanasi (D/C)   | 69              | 75                  | 39                       | 115    | 0.00          | 1.55         | -1.55         |
| <b>Sub Total ER</b>                | <b>2140</b>     | <b>2188</b>         |                          |        | <b>45.87</b>  | <b>5.60</b>  | <b>40.27</b>  |
| +/- 800 KV BiswanathCharialli-Agra | 0               | 0                   | 0                        | 0.00   | 0.00          | 0.00         | 0.00          |
| <b>Sub Total NER</b>               | <b>0</b>        | <b>0</b>            |                          |        | <b>0.00</b>   | <b>0.00</b>  | <b>0.00</b>   |
| <b>Total IR Exch</b>               | <b>6714</b>     | <b>7185</b>         |                          |        | <b>167.46</b> | <b>22.68</b> | <b>144.78</b> |

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 |
| 39.32                 | 0.67   | 39.99 | 6.37                    | 8.11       | 0.00                     | -0.44      | 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  |
| 46.36                  | 108.69                  | 155.05 | 40.27                     | 104.51     | 144.78 | -6.09                      | -4.18      | -10.26 |

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

| Element                         | Peak(20:00 Hrs) | Off Peak(03:00 Hrs) | Maximum Interchange (MW) |        | Energy (MU) |        | Net Energy MU |
|---------------------------------|-----------------|---------------------|--------------------------|--------|-------------|--------|---------------|
|                                 | MW              | MW                  | Import                   | Export | Import      | Export |               |
| 132 KV Tanakpur - Mahendarnagar | -28             | -23                 | 0                        | 32     | 0           | 1      | -0.65         |

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  | 0.16  | 3.70  | 38.63 | 69.83      | 21.99       | 4.62        | 0.00   | 0.00   |

| <----- Frequency (Hz) -----> |       |         |       | Average Frequency | Frequency Variation | Std. Dev. | Frequency in 15 Min Block |      | Freq Dev Index (% of Time) |
|------------------------------|-------|---------|-------|-------------------|---------------------|-----------|---------------------------|------|----------------------------|
| Maximum                      |       | Minimum |       |                   |                     |           | MAX                       | MIN  |                            |
| Freq                         | Time  | Freq    | Time  | Hz                | Index               | (Hz)      | (Hz)                      |      |                            |
| 50.20                        | 18.06 | 49.77   | 14.19 | 50.01             | 0.035               | 0.058     | 0.00                      | 0.00 | 30.17                      |

VII. 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                | 409         | 13:04 | 403          | 22:37 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Gorakhpur         | 400                | 414         | 13:05 | 390          | 22:14 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Bareilly(PG)400kV | 400                | 410         | 7:54  | 385          | 22:37 | 0.0                    | 7.5     | 0.0     | 0.0     | 0.0            |
| Kanpur            | 400                | 410         | 5:03  | 388          | 22:22 | 0.0                    | 4.3     | 0.0     | 0.0     | 0.0            |
| Dadri             | 400                | 412         | 5:02  | 389          | 22:38 | 0.0                    | 0.4     | 0.0     | 0.0     | 0.0            |
| Ballabgarh        | 400                | 416         | 5:02  | 386          | 22:22 | 0.0                    | 7.0     | 0.0     | 0.0     | 0.0            |
| Bawana            | 400                | 412         | 5:02  | 390          | 22:21 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Bassi             | 400                | 413         | 19:01 | 384          | 22:18 | 0.0                    | 8.8     | 0.0     | 0.0     | 0.0            |
| Hissar            | 400                | 409         | 5:01  | 388          | 22:18 | 0.0                    | 4.3     | 0.0     | 0.0     | 0.0            |
| Moga              | 400                | 404         | 5:00  | 390          | 22:20 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Abdullapur        | 400                | 414         | 5:01  | 390          | 22:34 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Nalagarh          | 400                | 412         | 5:01  | 395          | 14:53 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Kishenpur         | 400                | 402         | 0:37  | 392          | 11:59 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Wagoora           | 400                | 401         | 2:07  | 381          | 13:41 | 0.0                    | 62.4    | 0.0     | 0.0     | 0.0            |
| Amritsar          | 400                | 409         | 8:05  | 397          | 14:54 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Kashipur          | 400                | 416         | 7:52  | 403          | 22:35 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Hamirpur          | 400                | 406         | 5:01  | 392          | 11:57 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Rishikesh         | 400                | 420         | 18:03 | 384          | 11:40 | 0.0                    | 2.6     | 0.0     | 0.0     | 0.0            |

VIII. 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                | 771         | 5:04  | 730          | 22:22 | 0.0                    | 9.2     | 0.0     | 0.0     | 0.0            |
| Balia           | 765                | 773         | 17:02 | 729          | 22:36 | 0.0                    | 12.8    | 0.0     | 0.0     | 0.0            |
| Moga            | 765                | 779         | 5:04  | 746          | 22:19 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Agra            | 765                | 779         | 5:04  | 736          | 22:18 | 0.0                    | 3.5     | 0.0     | 0.0     | 0.0            |
| Bhiwani         | 765                | 781         | 5:02  | 744          | 22:18 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Unnao           | 765                | 763         | 8:04  | 725          | 22:24 | 3.1                    | 15.9    | 0.0     | 0.0     | 3.1            |
| Lucknow         | 765                | 776         | 8:04  | 733          | 22:36 | 0.0                    | 8.1     | 0.0     | 0.0     | 0.0            |
| Meerut          | 765                | 787         | 5:04  | 743          | 22:21 | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Jhatikara       | 765                | 773         | 5:01  | 735          | 22:34 | 0.0                    | 7.4     | 0.0     | 0.0     | 0.0            |
| Bareilly 765 kV | 765                | 0           | 0:00  | 0            | 0:00  | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Anta            | 765                | 787         | 18:08 | 750          | 0:23  | 0.0                    | 0.0     | 0.0     | 0.0     | 0.0            |
| Phagi           | 765                | 785         | 18:08 | 737          | 22:20 | 0.0                    | 7.2     | 0.0     | 0.0     | 0.0            |

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

**IX. Reservoir Parameters:**

| Name of Reservoir | Parameters |          | Present Parameters |             | Last Year |             | Last day                   |                           |
|-------------------|------------|----------|--------------------|-------------|-----------|-------------|----------------------------|---------------------------|
|                   | FRL (m)    | MDDL (m) | Level (m)          | Energy (MU) | Level (m) | Energy (MU) | Inflow (m <sup>3</sup> /s) | Usage (m <sup>3</sup> /s) |
| Bhakra            | 513.59     | 445.62   | 479.41             | 447.73      | 486.91    | 636.01      | 834.10                     | 878.16                    |
| Pong              | 426.72     | 384.05   | 389.05             | 43.91       | 405.72    | 361.16      | 56.69                      | 162.09                    |
| Tehri             | 829.79     | 740.04   | 743.35             | 16.00       | 747.10    | 34.20       | 162.41                     | 147.00                    |
| Koteswar          | 612.50     | 598.50   | 607.25             | 3.32        | 607.90    | 3.54        | 147.00                     | 135.34                    |
| Chamera-I         | 760.00     | 748.75   | 0.00               | 0.00        | 0.00      | 0.00        | 241.31                     | 276.50                    |
| 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   | 505.41             | 3.48        | 521.58    | 6.30        | 251.36                     | 132.15                    |

\* NA: Not Available

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

| State        | Off- Peak Hours (03:00 Hrs) |            |           | Peak Hours (20:00 Hrs) |            |           | Day Energy (MU) |                 |              |
|--------------|-----------------------------|------------|-----------|------------------------|------------|-----------|-----------------|-----------------|--------------|
|              | Bilateral (MW)              | IEX (MW)   | PXIL (MW) | Bilateral (MW)         | IEX (MW)   | PXIL (MW) | Bilateral (MU)  | IEX / PXIL (MU) | Total (MU)   |
| Punjab       | 169                         | 201        | 0         | 169                    | 175        | 0         | 4.05            | 5.50            | 9.55         |
| Delhi        | 232                         | 6          | 0         | 444                    | 68         | 0         | 10.46           | 3.24            | 13.70        |
| Haryana      | 784                         | 307        | 0         | 572                    | 298        | 0         | 15.98           | 7.00            | 22.98        |
| HP           | -822                        | -494       | 0         | -567                   | -677       | 0         | -15.65          | -13.38          | -29.03       |
| J&K          | -628                        | -32        | 0         | -571                   | 92         | 0         | -15.90          | -1.12           | -17.02       |
| CHD          | 0                           | 0          | 0         | 0                      | 10         | 0         | 0.35            | 0.30            | 0.66         |
| Rajasthan    | -7                          | 88         | 0         | -7                     | -75        | 0         | -0.24           | 5.41            | 5.17         |
| UP           | 1159                        | 488        | 0         | 903                    | 477        | 0         | 21.86           | 4.24            | 26.10        |
| Uttarakhand  | 58                          | 68         | 0         | 58                     | 158        | 0         | 1.40            | 2.63            | 4.03         |
| <b>Total</b> | <b>945</b>                  | <b>634</b> | <b>0</b>  | <b>1001</b>            | <b>527</b> | <b>0</b>  | <b>22.31</b>    | <b>13.82</b>    | <b>36.13</b> |

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

| State       | Bilateral (MW) |         | IEX (MW) |         | PXIL (MW) |         |
|-------------|----------------|---------|----------|---------|-----------|---------|
|             | Maximum        | Minimum | Maximum  | Minimum | Maximum   | Minimum |
| Punjab      | 169            | 169     | 292      | 163     | 0         | 0       |
| Delhi       | 591            | 232     | 467      | -80     | 0         | 0       |
| Haryana     | 817            | 572     | 353      | 27      | 0         | 0       |
| HP          | -567           | -822    | -386     | -777    | 0         | 0       |
| J&K         | -527           | -924    | 92       | -219    | 0         | 0       |
| CHD         | 44             | 0       | 29       | 0       | 0         | 0       |
| Rajasthan   | -7             | -34     | 369      | -297    | 0         | 0       |
| UP          | 1256           | 451     | 780      | 0       | 0         | 0       |
| Uttarakhand | 58             | 58      | 176      | 10      | 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 08.06.2016 :**  
Normal

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

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

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

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

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