**CENTRAL ELECTRICITY REGULATORY COMMISSION**
**NEW DELHI**

**Coram:**

**1. Dr. Pramod Deo, Chairperson**
**2. Shri Bhanu Bhushan, Member**
**3. Shri R. Krishnamoorthy, Member**

**Petition No. 89/2008**

**In the matter of**

Ensuring secure and reliable operation of Southern Regional Grid by maintaining the grid frequency above 49.0 Hz

**And in the Matter of**

Southern Regional Load Despatch Centre, Bangalore ….. **Petitioner**

Vs.

1. Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
2. Karnataka Power Transmission Corporation Ltd., Bangalore
3. Tamil Nadu Electricity Board, Chennai
4. Kerala State Electricity Board, Thiruvananthapuram
5. Electricity Department, Govt. of Pondicherry, Pondicherry
6. Electricity Department, Govt. of Goa, Panaji
7. NTPC Ltd, New Delhi
8. Neyveli Lignite Corporation Ltd, Neyveli
9. Nuclear Power Corporation of India Ltd, Mumbai
10. Southern Regional Power Committee, Bangalore ……. **Respondents**

**The following were present:**

1. Shri M. Venkateshan, SRLDC
2. Shri S.K. Soonee, NRLDC
3. Shri V.K. Agrawal, NRLDC
4. Shri K. Srinivasa Rao, SRLDC
5. Shri A. Natarajan, TNEB
6. Shri S. Sowmyanarayanan, TNEB
7. Shri K.S.N. Murthy, APTRANSCO
8. Shri P. Suresh Babu, APTRANSCO
9. Shri V. Hiremath, KPTCL
10. Shri H.S. Keshava Murthy, KPTCL
11. Shri K.N. Srinath, KPTCL

12. Shri Sathiyanathan, KSEB

**ORDER**
**(DATE OF HEARING: 11.9.2008)**

This petition was filed seeking directions to the beneficiaries in Southern Region (respondents Nos. 1 to 6) to refrain from over-drawls at low frequencies in the interest of grid security and safety and to regularly carry out necessary exercise for short-term and long-term demand estimation and to plan their demand side management to meet the consumers' load within their jurisdiction without over-drawing from the grid, since, as submitted by the petitioner, Southern Regional Grid had been experiencing low frequency since May 2008. Reportedly, frequency remained below 49 Hz for 5.36%, 14.48% and 35.19% of the total time during the months of May and June and up to 20$^{th}$ of July 2008 respectively. When the petition was taken up for hearing on 12.8.2008, the petitioner furnished the following details of over-drawls by respondents at frequency below 49 Hz:

**Over-drawal below 49 Hz**

| | APTRANSCO | | KPTCL | | KSEB | | TNEB | |
|---|---|---|---|---|---|---|---|---|
| | Maximum over-drawal (MW) | Energy overdrawn (MU) | Maximum over-drawal (MW) | Energy overdrawn (MU) | Maximum over-drawal (MW) | Energy overdrawn (MU) | Maximum over-drawal (MW) | Energy overdrawn (MU) |
| May, 2008 | 1222 | 1.86 | 302 | 0.64 | 219 | 0.30 | 963 | 3.99 |
| June, 2008 | 788 | 2.70 | 627 | 1.44 | 507 | 1.04 | 953 | 3.10 |
| July, 2008 (upto 20th) | 1181 | 6.04 | 909 | 4.72 | 504 | 2.06 | 985 | 7.18 |

2. Subsequent to the above hearing the petitioner placed on record details of over-drawls by the respondents in a CD vide its letter dated 14.8.2008. The details contained in the CD revealed that, during the month of July 2008, respondents Nos 1 to 4 (hereinafter also referred to as "the respondents concerned") had recklessly and rashly overdrawn electricity from the Southern Regional Grid when the frequency was hovering

below 49.00 Hz. This was contrary to the provisions paras 5.4.2(a) and 6.4.4 of the Indian Electricity Grid Code (IEGC) specified by the Commission under clause (h) of sub-section (1) of the Electricity Act, 2003 (Act). This led to a prima facie conclusion that respondents concerned had made themselves liable for penal action under Section 142 of the Act for non-compliance of the relevant provisions of the IEGC and also the previous directions of the Commission on the question of maintenance of grid discipline. Accordingly, vide the Commission's order dated 4.9.2008, show cause notices were issued directing respondents concerned to explain as to why penalty under Section 142 of the Act be not imposed on them, while annexing therewith the details of over-drawls for the month of July 2008. Such details are also annexed to this order at Annexures I to V.

3. Paras 5.4.2(a) and 6.4.4 of the IEGC enjoin upon the respondents to endeavor to restrict their net drawl from the grid to within their respective drawl schedules whenever the system frequency is below 49.5 Hz. They further legislate that when the frequency falls below 49.0 Hz, requisite load shedding (manual) shall be carried out to curtail the over-drawl. The provisions of the IEGC put an embargo on over-drawl of electricity from the grid when the frequency falls below 49.0 Hz.

4. The respondents concerned have shown cause. We heard the representatives of the parties. We have also gone through the cause shown on their behalf.

5. None of the respondents concerned has denied the fact of over-drawl during July at frequency below 49.0 Hz as per the details communicated through the show cause

notices. It has been pleaded on their behalf that the main reasons for over-drawl were continued dry spell and delayed monsoon, It has been stated that that the critical power shortage led to the situation of a wide gap between supply and demand, despite load-shedding. It has been pleaded that over-drawl was totally unintentional and was for reasons beyond their control.

6. Respondent No 1 has submitted that drastic reduction in base availability from 159 MU to 124 MU and failure of its efforts to procure power from other sources led to over-drawls. It has been explained that the matter has been taken up with the State Government who in turn has addressed the issue of reduced thermal generation by taking remedial measures including import of coal. According to this respondent, it has stepped up its efforts to increase availability of power in the State of Andhra Pradesh through purchases from the existing IPPs round-the-clock and is also harnessing the high cost naphtha generation, besides continuing load relief up to 18 MU per day with a view to restricting over-drawl. It has been illustrated that availability of thermal generation of electricity was increased to 67 MU on 2.9.2008, as a result of its efforts.

7. Respondent No 2 has stated that the State utilities are carrying out load- shedding, besides increasing their own generation and procurement of power from other available sources. The position is stated to be consistently reviewed by the Principal Secretary (Power) to the State Government of Karnataka every week to devise ways and means to overcome the deficit situations and maintain a balance between the demand and supply

8. Respondent No 3 has stated that the State has changed the entire load shedding pattern to get effective load relief. The respondent has given certain details of load-shedding said to have been resorted to it during the period. Further, it is stated that naphtha based generation is also being pursued. According to this respondent, reduction of generation at the Atomic Power Station and the generating stations owned by Neyveli Lignite Corporation is another contributory factor leading to over-drawl.

9. Respondent No 4 has underlined that the State has approached Ministry of Power for increase in allocation from central sector generating stations. It, in a routine manner, has pointed out that there was considerable reduction in supply from the Central Generating Stations from 22.8.2208, without caring to note that the show cause notice pertained to the period of July 2008.

10. In the light of above narrated facts, the respondents concerned have prayed for leniency, and discharge of the show cause notice on the assurance that they will endeavor to comply with the provisions of the IEGC in future.

11. During the hearing, the representative of the petitioner informed that the grid frequency had started improving for about 10 days after hearing on 12.08.2008, but thereafter it again started to deteriorate fast and remained below 49 Hz for prolonged durations due to sustained over-drawls by the constituents. He stated that the matter was continuously pursued with the defaulting utilities for curtailing the over-drawls. He added that apart from issuing warning messages for violation of the IEGC provisions, physical

regulatory measures by disconnecting feeders of the defaulting utilities were also adopted. The representative of the petitioner further elaborated that during the months of July and August 2008, the frequency remained below 49 Hz for 31.83% and 18.58% of the total time respectively. He updated the status of over-drawls below 49 Hz during the months of July and August 2008 as under:

**Maximum Over-drawl (MW) below 49 Hz**

| | APTRANSCO | KPTCL | KSEB | TNEB |
|---|---|---|---|---|
| July, 2008 | 1181 | 909 | 504 | 1273 |
| August, 2008 | 1284 | 964 | 447 | 891 |

12. In the past there were many instances of over-drawls by one utility or the other. However, the proceedings were closed after the assurances similar to those given in the present proceedings with sermons of reasonable behaviour. This, however, does not seem to have percolated down and it has not deterred the respondents concerned to maintain grid discipline. The situation cannot be allowed to continue *ad nauseum*. The persuasive efforts of the Commission have not brought the desired results. Over-drawl from the grid in itself is undesirable as it deprives some other utility of its legitimate entitlement. However, in exceptional circumstances, over-drawl may be permitted to a very limited extent through commercial mechanism of UI. However, reckless and unabated over-drawls cannot be tolerated when the frequency is precariously low, which can have untold adverse effects. The reasons explained by the respondents concerned are untenable according to our opinion. There are shortages of electricity through out the country. Therefore, overdrawl by one State to meet the gap in demand and supply situation cannot be justified. The other State whose share is being consumed also faces

the similar situation and dilemma. Therefore, we are not satisfied with the extenuating circumstances narrated by the respondents concerned to justify their actions while at the same time endangering the grid security. We hold the respondents concerned guilty of non-compliance of paras 5.4.2 (a) and 6.4.4 of the IEGC adverted to above and the Commission's repeated instructions on the subject, during July 2008. We have not taken note of the situation narrated by the representative of the petitioner during the hearing, for the month of August, 2008 as it was not part of the show cause notice. It is evident from the cause shown by the respondents concerned that there is no effective denial of over-drawls by them as tabulated in Annexures I to V.

13. The next question is of the quantum of penalty to be levied. Section 142 of the Act empowers the Commission to impose penalty not exceeding Rs. one lakh for "each contravention". From the instances of non-compliance tabulated in the Annexures I to V it can be made out that over-drawls and consequential contraventions were in a large number of time blocks. The penalty of Rs. one lakh can be imposed for over-drawl during each time block since each overdrawl constitutes separate contravention. However, for the purpose of the present proceedings, we are taking a lenient view, and in exercise of powers conferred under Section 142 of the Act, we impose the penalty of Rs. one lakh each on respondents Nos. 1 to 4, that is, Transmission Corporation of Andhra Pradesh Ltd, Karnataka Power Transmission Corporation Ltd, Tamil Nadu Electricity Board and Kerala State Electricity Board. The amount of penalty shall be deposited by the respondents concerned latest by 15.10.2008. In case of high and/or prolonged over-drawls, if any, in future, more severe penalty may be levied depending on seriousness of

the offence. In appropriate cases we may also invoke the provisions of Section 149 of the Act which authorizes the Commission to impose penalty on every person in charge of and responsible for the affairs of the defaulting utility.

14. We find that the principal reason for huge gaps in demand and supply is the lack of proper planning by the States. The concerned State utilities are required to plan in advance as to how they would meet their consumers' load without overdrawing from the grid. Clause 6.4.5 of the IEGC places this responsibility squarely on all SLDCs/STUs. Compliance of clause 6.4.5 is essential for overcoming the perennial problem. We, therefore, direct the respondents Nos.1 to 6 to furnish the data to the Commission, with a copy to the concerned State Commission, in the specimen form enclosed as Annexure-VI to this order latest by 30.11.2008 for the first week of January 2009 and the first week of April 2009. We further direct that similar information shall also be furnished by all other State transmission utilities (nor party to the present proceedings) to whom copies of this order shall also be sent. The Secretariat of the Commission shall process the reports received and place before the Commission for its perusal and appropriate directions.

15. With the above, the present petition stands disposed of.

| | | |
|---|---|---|
| **Sd/-** | **Sd/-** | **Sd/-** |
| **(R. KRISHNAMOORTHY)** | **(BHANU BHUSHAN)** | **(DR. PRAMOD DEO)** |
| **MEMBER** | **MEMBER** | **CHAIRPERSON** |

**New Delhi dated 22nd September 2008**

**Annexure-I**

**Statement of Over-drawal at frequency below 49.02 Hz as on 4.7.2008**

| | APTRANSCO | | | | KPTCL | | | KSEB | | | TNEB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DATE | 13.07.08 | | | | | | | | | | | | |
| Block. No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) |
| **1** | 49 | 1541 | 1641 | 100 | 770 | 786 | | | | | 1846 | 1988 | 142 |
| **2** | 49 | 1541 | 1803 | 262 | 766 | 758 | | | | | 1827 | 1960 | 133 |
| **3** | 49 | 1541 | 1707 | 166 | 766 | 840 | 74 | | | | 1810 | 1966 | 157 |
| **4** | 49 | 1541 | 1602 | 60 | 766 | 920 | 154 | | | | 1800 | 1962 | 162 |
| **5** | 49 | 1551 | 1629 | 78 | 769 | 905 | 136 | | | | 1827 | 1948 | 121 |
| **6** | 49 | 1551 | 1635 | 84 | 769 | 887 | 118 | | | | 1827 | 1977 | 150 |
| **7** | 49 | 1551 | 1649 | 98 | 769 | 867 | 99 | | | | 1827 | 1991 | 164 |
| **8** | 49 | 1550 | 1647 | 98 | 768 | 813 | | | | | 1827 | 2078 | 251 |
| **9** | 49 | 1625 | 1802 | 177 | 738 | 725 | | | | | 1836 | 2094 | 259 |
| **10** | 49 | 1625 | 1753 | 127 | 738 | 763 | | | | | 1836 | 2033 | 198 |
| **11** | 49 | | | | 738 | 805 | 67 | 413 | 468 | 54 | 1836 | 2034 | 198 |
| **12** | 49 | | | | 738 | 761 | | 413 | 468 | 54 | 1835 | 2079 | 244 |
| **13** | 49 | 1625 | 1788 | 163 | 738 | 744 | | 413 | 478 | 65 | 1835 | 2109 | 274 |
| **14** | 49 | 1625 | 1955 | 330 | 738 | 771 | | | | | 1835 | 2044 | 209 |
| **15** | 49 | 1625 | 1904 | 279 | 738 | 777 | | | | | 1835 | 2090 | 255 |
| **16** | 49 | 1624 | 1856 | 232 | 737 | 830 | 93 | | | | 1835 | 2107 | 271 |
| **17** | 49 | 1624 | 1746 | 123 | 737 | 893 | 156 | 413 | 459 | 46 | 1840 | 2012 | 173 |
| **18** | 49 | 1624 | 1725 | 102 | 737 | 942 | 206 | 413 | 479 | 66 | 1840 | 2032 | 192 |
| **19** | 49 | 1624 | 1753 | 130 | 737 | 944 | 207 | 413 | 489 | 76 | 1840 | 2034 | 194 |
| **20** | 49 | 1624 | 1834 | 210 | 737 | 961 | 225 | 413 | 484 | 71 | 1840 | 2000 | 161 |
| **22** | 49 | 1535 | 1805 | 269 | 737 | 1005 | 268 | 413 | 572 | 159 | 1618 | 1893 | 275 |
| **23** | 49 | 1535 | 1805 | 269 | 737 | 1057 | 320 | 413 | 527 | 114 | 1637 | 1907 | 270 |
| **24** | 49 | 1535 | 1665 | 129 | 737 | 997 | 260 | 413 | 536 | 123 | 1657 | 1834 | 178 |
| **26** | 49 | 1554 | 1674 | 120 | 773 | 952 | 179 | 415 | 516 | 102 | 1679 | 2017 | 339 |
| **27** | 49 | 1554 | 1700 | 146 | 773 | 952 | 179 | 415 | 490 | 76 | 1679 | 2081 | 403 |
| **28** | 49 | 1557 | 1703 | 146 | 775 | 980 | 206 | | | | 1679 | 1904 | 226 |
| **29** | 49 | 1510 | 1814 | 303 | 768 | 828 | 60 | 415 | 516 | 101 | 1651 | 1888 | 237 |
| **30** | 49 | 1510 | 1926 | 416 | 768 | 791 | | 415 | 454 | 40 | 1651 | 1958 | 307 |
| **31** | 49 | 1509 | 1871 | 362 | 767 | 883 | 117 | 414 | 463 | 49 | 1649 | 2089 | 440 |
| **32** | 49 | 1509 | 1811 | 302 | 767 | 898 | 131 | 414 | 459 | 45 | 1649 | 2227 | 578 |
| **33** | 49 | 1436 | 1710 | 274 | 766 | 980 | 214 | 414 | 452 | 38 | 1636 | 2330 | 694 |
| **34** | 49 | 1436 | 1748 | 312 | 766 | 906 | 140 | 414 | 497 | 84 | 1636 | 2418 | 782 |
| **36** | 49 | 1433 | 1620 | 187 | 763 | 909 | 147 | 412 | 541 | 128 | 1636 | 2394 | 758 |
| **37** | 49 | 1433 | 1624 | 192 | 763 | 933 | 170 | 412 | 549 | 137 | 1636 | 2379 | 743 |
| **38** | 49 | 1433 | 1661 | 228 | 763 | 905 | 142 | 412 | 490 | 77 | 1636 | 2250 | 614 |
| **39** | 49 | 1433 | 1802 | 369 | 763 | 909 | 146 | 412 | 562 | 150 | 1636 | 2304 | 668 |
| **40** | 49 | 1442 | 1856 | 414 | 771 | 802 | | 419 | 553 | 134 | 1635 | 2230 | 594 |
| **41** | 49 | 1445 | 1933 | 488 | 774 | 790 | | 420 | 530 | 110 | 1640 | 2326 | 686 |
| **42** | 49 | 1445 | 1874 | 429 | 774 | 801 | | 420 | 552 | 132 | 1640 | 2165 | 525 |
| **43** | 49 | 1451 | 1871 | 420 | | | | 423 | 627 | 204 | 1648 | 2010 | 362 |
| **44** | 49 | 1451 | 1977 | 526 | | | | 423 | 630 | 207 | 1648 | 1981 | 333 |
| **45** | 49 | 1451 | 2034 | 583 | | | | 423 | 628 | 206 | 1647 | 2095 | 448 |
| **46** | 49 | 1451 | 1944 | 493 | 780 | 841 | 62 | 423 | 556 | 133 | 1596 | 2229 | 633 |
| **47** | 49 | 1451 | 1701 | 251 | 780 | 926 | 146 | 423 | 580 | 157 | 1510 | 2307 | 797 |
| **50** | 49 | 1445 | 1598 | 153 | 775 | 881 | 105 | 421 | 600 | 179 | 1503 | 2082 | 579 |
| **51** | 49 | 1445 | 1702 | 256 | | | | 371 | 526 | 156 | 1598 | 2023 | 425 |

| | APTRANSCO | | | | KPTCL | | | KSEB | | | TNEB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block. No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) |
| **52** | 49 | 1441 | 1830 | 389 | | | | 367 | 451 | 84 | 1606 | 2049 | 443 |
| **55** | 49 | 1431 | 1942 | 511 | 763 | 857 | 94 | 359 | 475 | 116 | 1628 | 2028 | 401 |
| **56** | 49 | 1431 | 1929 | 498 | 763 | 906 | 143 | 359 | 463 | 104 | 1633 | 1847 | 214 |
| **58** | 49 | 1431 | 2127 | 695 | 763 | 849 | 86 | 359 | 511 | 152 | 1637 | 1715 | 77 |
| **59** | 49 | 1431 | 2011 | 580 | 763 | 947 | 184 | 359 | 553 | 194 | 1637 | 1737 | 100 |
| **60** | 49 | 1428 | 2059 | 632 | 759 | 846 | 86 | 357 | 563 | 206 | 1632 | 1723 | 91 |
| **67** | 49 | 1428 | 2223 | 796 | 759 | 896 | 137 | 357 | 517 | 160 | | | |
| **68** | 49 | 1428 | 2144 | 716 | 759 | 874 | 115 | 357 | 484 | 127 | | | |
| **70** | 49 | 1364 | 1959 | 595 | 757 | 847 | 90 | 357 | 445 | 88 | 1679 | 1777 | 97 |
| **71** | 49 | 1364 | 1898 | 534 | 757 | 820 | 63 | 357 | 489 | 132 | 1682 | 1814 | 132 |
| **72** | 49 | 1364 | 1941 | 577 | 757 | 841 | 84 | 357 | 523 | 166 | 1686 | 1865 | 180 |
| **76** | 49 | 1301 | 1418 | 117 | | | | 561 | 646 | 85 | 1728 | 1813 | 84 |
| **77** | 49 | 1301 | 1617 | 316 | 765 | 852 | 87 | 561 | 683 | 122 | 1692 | 1750 | 59 |
| **78** | 49 | 1301 | 1504 | 203 | 765 | 959 | 194 | 561 | 740 | 179 | 1689 | 1789 | 100 |
| **79** | 49 | 1301 | 1506 | 204 | 765 | 853 | 87 | 561 | 681 | 120 | 1689 | 1846 | 157 |
| **80** | 49 | 1301 | 1429 | 128 | | | | 561 | 633 | 72 | 1689 | 1862 | 173 |
| **81** | 49 | | | | | | | 561 | 646 | 85 | 1688 | 1801 | 113 |
| **82** | 49 | | | | | | | 557 | 674 | 117 | 1688 | 1784 | 96 |
| **83** | 49 | | | | | | | 557 | 716 | 159 | 1688 | 1803 | 116 |
| **84** | 49 | | | | | | | 557 | 724 | 167 | 1688 | 1773 | 85 |
| **85** | 49 | 1303 | 1519 | 216 | | | | 563 | 692 | 129 | | | |
| **86** | 49 | 1313 | 1507 | 194 | 776 | 821 | 45 | 573 | 649 | 76 | 1688 | 1781 | 93 |
| **87** | 49 | 1321 | 1445 | 124 | 783 | 840 | 57 | 581 | 648 | 67 | 1688 | 1789 | 102 |
| **88** | 49 | 1329 | 1402 | 73 | | | | | | | 1688 | 1772 | 85 |
| **89** | 49 | 1405 | 1611 | 206 | | | | 545 | 712 | 167 | 1590 | 1666 | 76 |
| **90** | 49 | 1411 | 1524 | 113 | 799 | 879 | 80 | 552 | 629 | 78 | 1590 | 1687 | 97 |
| **91** | 49 | 1414 | 1487 | 73 | | | | | | | 1590 | 1732 | 142 |
| **92** | 49 | 1422 | 1555 | 133 | | | | 565 | 660 | 95 | 1590 | 1707 | 117 |
| **93** | 49 | 1504 | 1574 | 70 | 813 | 877 | 64 | 569 | 635 | 66 | | | |
| **94** | 49 | 1512 | 1574 | 62 | | | | | | | 1886 | 1989 | 103 |
| **95** | 49 | 1519 | 1592 | 73 | | | | | | | 1886 | 1980 | 95 |
| **96** | 49 | 1525 | 1630 | 105 | | | | 589 | 637 | 47 | 1886 | 2003 | 118 |

Note:

1. The time blocks in which average frequency was 49.02 Hz or above are not indicated in the table.
2. For the time blocks left empty, for a utility, there was no significant overdrawals by the concerned utility.

**Annexure-II**

## Statement of Over-drawal at frequency below 49.02 Hz as on 13.7.2008

| | APTRANSCO | | | | KPTCL | | | KSEB | | | TNEB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block. No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) |
| **1** | 49 | 1484 | 2062 | 578 | 823 | 1040 | 217 | 620 | 735 | 115 | 1862 | 2088 | 226 |
| **2** | 49 | 1484 | 1982 | 498 | 823 | 1031 | 208 | 620 | 745 | 125 | 1862 | 2012 | 149 |
| **3** | 49 | 1484 | 1854 | 370 | 823 | 1082 | 259 | 620 | 813 | 193 | 1862 | 2085 | 223 |
| **4** | 49 | 1484 | 1955 | 471 | 823 | 1106 | 283 | 620 | 845 | 225 | 1862 | 2167 | 305 |
| **5** | 49 | 1692 | 2057 | 365 | 822 | 1133 | 311 | 643 | 858 | 215 | 1860 | 2138 | 277 |
| **13** | 49 | 1773 | 2640 | 867 | 792 | 1131 | 339 | 645 | 802 | 157 | 1863 | 2378 | 516 |
| **14** | 49 | 1773 | 2773 | 1000 | 792 | 1129 | 336 | 645 | 768 | 123 | 1863 | 2345 | 482 |
| **15** | 49 | 1773 | 2757 | 983 | 792 | 1153 | 361 | 645 | 788 | 143 | 1863 | 2319 | 457 |
| **16** | 49 | 1773 | 2772 | 999 | 792 | 1175 | 383 | 645 | 801 | 156 | 1863 | 2286 | 424 |
| **17** | 49 | 1751 | 2589 | 838 | 792 | 1228 | 435 | 645 | 834 | 189 | 1863 | 2408 | 546 |
| **18** | 49 | 1751 | 2494 | 742 | 792 | 1263 | 471 | 645 | 826 | 181 | 1863 | 2468 | 606 |
| **19** | 49 | 1751 | 2463 | 712 | 792 | 1251 | 459 | 645 | 800 | 155 | 1863 | 2518 | 655 |
| **20** | 49 | 1751 | 2385 | 633 | 792 | 1303 | 511 | 645 | 810 | 165 | 1863 | 2525 | 663 |
| **23** | 49 | 1707 | 2682 | 975 | 792 | 1265 | 472 | 645 | 897 | 252 | 1579 | 2161 | 582 |
| **24** | 49 | 1707 | 2542 | 835 | 792 | 1226 | 433 | 645 | 849 | 204 | 1579 | 2179 | 600 |
| **26** | 49 | 1527 | 2555 | 1028 | 827 | 1153 | 326 | 647 | 808 | 161 | 1584 | 2195 | 612 |
| **28** | 49 | 1527 | 2088 | 561 | 827 | 1289 | 461 | 647 | 827 | 180 | 1584 | 2449 | 866 |
| **31** | 49 | 1513 | 2205 | 692 | 823 | 1272 | 449 | 571 | 883 | 311 | 1577 | 2495 | 918 |
| **35** | 49 | 1504 | 2354 | 850 | 823 | 1177 | 354 | 571 | 792 | 221 | 1577 | 2462 | 885 |
| **41** | 49 | 1517 | 2198 | 680 | 831 | 1176 | 345 | 575 | 795 | 220 | 1590 | 2463 | 873 |
| **42** | 49 | 1517 | 2289 | 772 | 831 | 1008 | 177 | 575 | 752 | 177 | 1590 | 2253 | 663 |
| **47** | 49 | 1601 | 2228 | 627 | 839 | 1083 | 245 | 577 | 724 | 148 | 1601 | 2157 | 556 |
| **48** | 49 | 1601 | 2076 | 475 | 839 | 1128 | 289 | 577 | 685 | 108 | 1601 | 2123 | 522 |
| **50** | 49 | 1596 | 1889 | 293 | 834 | 1100 | 267 | 574 | 751 | 177 | 1593 | 2429 | 836 |
| **51** | 49 | 1596 | 1941 | 346 | 834 | 1096 | 262 | 574 | 750 | 176 | 1593 | 2385 | 792 |
| **52** | 49 | 1596 | 2050 | 455 | 834 | 1068 | 235 | 574 | 766 | 192 | 1593 | 2364 | 771 |
| **55** | 49 | 1602 | 2204 | 602 | 830 | 1065 | 236 | 572 | 774 | 202 | 1587 | 2188 | 601 |
| **56** | 49 | 1602 | 2158 | 556 | 830 | 1057 | 228 | 572 | 790 | 218 | 1587 | 2146 | 559 |
| **58** | 49 | 1757 | 2314 | 557 | 830 | 1028 | 198 | 598 | 747 | 149 | 1588 | 2042 | 453 |
| **59** | 49 | 1757 | 2428 | 672 | 830 | 1066 | 236 | 598 | 730 | 132 | 1588 | 1986 | 398 |
| **77** | 49 | 1507 | 2260 | 753 | 834 | 1128 | 294 | 579 | 1023 | 444 | 1663 | 2138 | 475 |
| **79** | 49 | 1507 | 1842 | 335 | 834 | 1160 | 325 | 579 | 958 | 379 | 1663 | 1993 | 330 |
| **80** | 49 | 1481 | 1770 | 289 | 834 | 1076 | 241 | 579 | 858 | 279 | 1663 | 1924 | 262 |
| **81** | 49 | 1470 | 1612 | 143 | 834 | 1000 | 165 | 579 | 808 | 230 | 1663 | 1901 | 238 |

| | APTRANSCO | | | | KPTCL | | | KSEB | | | TNEB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block. No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) | Schedule (MW) | Actual Drawal (MW) | Over-drawal (MW) |
| **82** | 49 | | | | 834 | 974 | 139 | 579 | 794 | 215 | 1663 | 1868 | 205 |
| **83** | 49 | | | | 834 | 944 | 110 | 579 | 689 | 110 | 1663 | 1850 | 188 |
| **84** | 49 | | | | 834 | 860 | 26 | 579 | 656 | 77 | 1663 | 1793 | 131 |
| **85** | 49 | 1470 | 1736 | 266 | 834 | 889 | 55 | 579 | 653 | 75 | 1663 | 1723 | 60 |
| **86** | 49 | 1470 | 1774 | 304 | 834 | 930 | 95 | 579 | 649 | 71 | 1663 | 1756 | 93 |
| **87** | 49 | 1470 | 1724 | 254 | 834 | 937 | 103 | 579 | 664 | 86 | 1663 | 1789 | 126 |
| **88** | 49 | 1470 | 1665 | 195 | 834 | 946 | 112 | 579 | 654 | 76 | 1663 | 1793 | 130 |
| **89** | 49 | 1461 | 1644 | 183 | 830 | 990 | 160 | 625 | 711 | 86 | 1567 | 1716 | 149 |
| **90** | 49 | 1461 | 1692 | 231 | 830 | 990 | 160 | 625 | 654 | 30 | 1567 | 1731 | 164 |
| **91** | 49 | 1461 | 1569 | 108 | 830 | 1030 | 200 | 625 | 659 | 35 | 1567 | 1719 | 153 |
| **92** | 49 | 1461 | 1695 | 234 | 830 | 985 | 155 | | | | 1567 | 1727 | 160 |
| **93** | 49 | 1457 | 1632 | 175 | 827 | 997 | 170 | | | | 1736 | 1767 | 31 |
| **94** | 49 | 1457 | 1548 | 90 | 827 | 931 | 105 | | | | 1736 | 1856 | 120 |
| **96** | 49 | 1457 | 1699 | 241 | 825 | 886 | 61 | 622 | 729 | 107 | 1733 | 1880 | 147 |

Note:

1. The time blocks in which average frequency was 49.02 Hz or above are not indicated in the table.
2. For the time blocks left empty, for a utility, there was no significant overdrawals by the concerned utility.

**Annexure-III**

## Statement of Over-drawal at frequency below 49.02 Hz as on 19.7.2008

| | KPTCL | | | | KSEB | | | APTRANSCO | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Block No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) |
| **1** | 49 | 1034 | 1363 | 330 | | | | 1748 | 2547 | 799 |
| **2** | 49 | 1034 | 1264 | 231 | | | | 1748 | 2534 | 787 |
| **3** | 49 | 1034 | 1200 | 166 | | | | 1748 | 2428 | 680 |
| **4** | 49 | 1034 | 1215 | 182 | | | | 1748 | 2348 | 601 |
| **5** | 49 | 1043 | 1318 | 275 | | | | 1913 | 2300 | 387 |
| **6** | 49 | 1043 | 1411 | 368 | | | | 1913 | 2291 | 378 |
| **9** | 49 | 1011 | 1444 | 433 | | | | 1952 | 2292 | 340 |
| **11** | 49 | 1011 | 1407 | 397 | | | | 1952 | 2368 | 415 |
| **17** | 49 | 1014 | 1412 | 398 | | | | 2056 | 2589 | 533 |
| **18** | 49 | 1014 | 1227 | 213 | | | | 2056 | 2702 | 646 |
| **19** | 49 | 1014 | 1225 | 211 | | | | 2056 | 2689 | 633 |
| **20** | 49 | 1014 | 1162 | 147 | 720 | 765 | 45 | 2056 | 2767 | 711 |
| **21** | 49 | 1014 | 1224 | 210 | 720 | 804 | 84 | 2008 | 2760 | 752 |
| **22** | 49 | 1014 | 1213 | 199 | 720 | 746 | 26 | 2008 | 2755 | 747 |
| **23** | 49 | 1014 | 1232 | 218 | 720 | 767 | 47 | 1990 | 2552 | 562 |
| **24** | 49 | 1014 | 1373 | 359 | 720 | 764 | 44 | 1990 | 2226 | 236 |
| **25** | 49 | 1042 | 1366 | 323 | 709 | 747 | 39 | 2005 | 2020 | 16 |
| **27** | 49 | 1042 | 1188 | 146 | 709 | 755 | 46 | 2005 | 2150 | 146 |
| **28** | 49 | 1042 | 1215 | 172 | 709 | 731 | 23 | 2005 | 2078 | 74 |
| **30** | 49 | 1039 | 1210 | 172 | 708 | 767 | 59 | | | |
| **35** | 49 | 1021 | 1298 | 277 | 632 | 717 | 86 | 1933 | 2084 | 151 |
| **39** | 49 | 1021 | 1301 | 280 | 632 | 741 | 109 | 1837 | 2085 | 249 |
| **40** | 49 | 1025 | 1209 | 183 | 634 | 688 | 54 | 1841 | 2068 | 227 |
| **42** | 49 | 1028 | 1272 | 244 | 635 | 646 | 11 | 1605 | 1731 | 126 |
| **43** | 49 | 1034 | 1182 | 148 | 638 | 700 | 62 | | | |
| **44** | 49 | 1034 | 1156 | 121 | 638 | 714 | 76 | | | |
| **45** | 49 | 1034 | 1135 | 101 | 638 | 730 | 92 | | | |
| **46** | 49 | 1034 | 1161 | 126 | 638 | 722 | 84 | 1611 | 1674 | 63 |
| **47** | 49 | 1034 | 1171 | 136 | 638 | 699 | 61 | 1611 | 1704 | 93 |
| **50** | 49 | 1031 | 1417 | 386 | 637 | 714 | 77 | 1609 | 1803 | 195 |
| **51** | 49 | 1031 | 1355 | 323 | 637 | 698 | 61 | 1609 | 1774 | 165 |
| **52** | 49 | 1031 | 1304 | 272 | 637 | 681 | 44 | 1609 | 1797 | 188 |
| **55** | 49 | 1028 | 1245 | 217 | | | | 1606 | 2058 | 453 |
| **56** | 49 | 1028 | 1216 | 187 | 635 | 696 | 61 | 1606 | 1955 | 349 |
| **58** | 49 | 1028 | 1334 | 306 | 635 | 753 | 118 | 1606 | 1765 | 159 |
| **59** | 49 | 1028 | 1295 | 266 | 635 | 768 | 133 | 1606 | 1721 | 115 |
| **60** | 49 | 1025 | 1247 | 222 | 634 | 719 | 85 | 1602 | 1665 | 63 |
| **62** | 49 | 1025 | 1179 | 154 | 634 | 707 | 73 | 1602 | 1619 | 17 |
| **63** | 49 | 1025 | 1208 | 183 | 634 | 699 | 65 | 1602 | 1644 | 43 |
| **64** | 49 | 1022 | 1189 | 167 | 631 | 704 | 73 | 1599 | 1635 | 36 |
| **67** | 49 | 1021 | 1282 | 260 | 630 | 712 | 82 | 1599 | 1649 | 50 |
| **68** | 49 | 1021 | 1214 | 193 | 630 | 691 | 61 | 1599 | 1723 | 125 |
| **70** | 49 | 1004 | 1309 | 305 | 542 | 643 | 101 | 1488 | 1770 | 282 |
| **76** | 49 | 995 | 1064 | 69 | 632 | 722 | 90 | 1478 | 1495 | 17 |
| **77** | 49 | 1037 | 1109 | 73 | 632 | 720 | 88 | | | |
| **78** | 49 | 1037 | 1094 | 57 | 632 | 659 | 27 | 1540 | 1659 | 119 |
| **79** | 49 | 1037 | 1142 | 106 | 632 | 692 | 60 | 1540 | 1619 | 79 |
| **80** | 49 | 1037 | 1169 | 132 | 632 | 672 | 40 | 1540 | 1585 | 44 |

| | KPTCL | | | | KSEB | | | APTRANSCO | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Block No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) |
| **81** | 49 | 1038 | 1116 | 78 | 632 | 644 | 12 | 1540 | 1583 | 43 |
| **82** | 49 | 1038 | 1090 | 52 | 632 | 657 | 25 | 1540 | 1568 | 28 |
| **83** | 49 | 1038 | 1052 | 14 | | | | | | |
| **84** | 49 | 1038 | 1079 | 40 | 632 | 664 | 32 | | | |
| **85** | 49 | 1033 | 1136 | 103 | 629 | 652 | 23 | | | |
| **86** | 49 | 1021 | 1111 | 90 | 623 | 647 | 24 | | | |
| **87** | 49 | 1021 | 1054 | 32 | 623 | 657 | 34 | | | |
| **88** | 49 | 1021 | 1092 | 71 | 623 | 645 | 22 | | | |
| **89** | 49 | 1057 | 1160 | 103 | 562 | 599 | 37 | | | |
| **90** | 49 | 1057 | 1132 | 76 | 562 | 595 | 32 | | | |
| **91** | 49 | 1057 | 1138 | 82 | 562 | 578 | 15 | | | |
| **92** | 49 | 1057 | 1179 | 122 | | | | | | |
| **93** | 49 | 1073 | 1160 | 87 | | | | | | |
| **94** | 49 | 1073 | 1322 | 248 | | | | | | |
| **95** | 49 | 1073 | 1317 | 243 | | | | | | |
| **96** | 49 | 1073 | 1277 | 204 | | | | | | |

Note:

1. The time blocks in which average frequency was 49.02 Hz or above are not indicated in the table.
2. For the time blocks left empty, for a utility, there was no significant overdrawals by the concerned utility.

**Annexure-IV**

## Statement of Over-drawal at frequency below 49.02 Hz as on 25.7.2008

| | APTRANSCO | | | | KPTCL | | | KSEB | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Block.No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) |
| **1** | 49 | 1346 | 1607 | 261 | 784 | 838 | 53 | 490 | 516 | 27 |
| **2** | 49 | 1346 | 1394 | 48 | 784 | 846 | 62 | 490 | 515 | 25 |
| **3** | 49 | 1346 | 1485 | 139 | 784 | 854 | 70 | 490 | 553 | 64 |
| **4** | 49 | 1346 | 1481 | 135 | 784 | 911 | 127 | 490 | 560 | 70 |
| **5** | 49 | 1408 | 1578 | 170 | 795 | 892 | 97 | 490 | 549 | 59 |
| **6** | 49 | 1408 | 1594 | 186 | 795 | 929 | 134 | 490 | 557 | 67 |
| **8** | 49 | 1434 | 1846 | 412 | 794 | 920 | 126 | 490 | 532 | 42 |
| **9** | 49 | 1467 | 1947 | 480 | 767 | 894 | 127 | 490 | 520 | 31 |
| **10** | 49 | 1467 | 1953 | 486 | 767 | 926 | 159 | 490 | 511 | 21 |
| **14** | 49 | 1451 | 1988 | 537 | 754 | 919 | 166 | 474 | 506 | 32 |
| **15** | 49 | 1451 | 1892 | 441 | 754 | 997 | 244 | 474 | 514 | 40 |
| **16** | 49 | 1451 | 1853 | 402 | 754 | 979 | 226 | 474 | 502 | 28 |
| **17** | 49 | 1451 | 1683 | 231 | 754 | 927 | 173 | 474 | 517 | 43 |
| **18** | 49 | 1467 | 1683 | 217 | 767 | 927 | 160 | 490 | 534 | 45 |
| **19** | 49 | 1483 | 1674 | 192 | 780 | 919 | 139 | 505 | 556 | 51 |
| **20** | 49 | 1499 | 1645 | 146 | 793 | 907 | 114 | 520 | 574 | 54 |
| **21** | 49 | 1472 | 1513 | 41 | 793 | 997 | 204 | 520 | 639 | 119 |
| **22** | 49 | 1472 | 1548 | 76 | 793 | 1038 | 245 | 520 | 602 | 81 |
| **23** | 49 | 1472 | 1548 | 76 | 793 | 1098 | 304 | 520 | 553 | 33 |
| **24** | 49 | 1472 | 1585 | 113 | 793 | 1262 | 468 | 520 | 555 | 35 |
| **26** | 49 | 1477 | 2181 | 703 | 805 | 1278 | 473 | 499 | 590 | 92 |
| **27** | 49 | 1477 | 2016 | 538 | 805 | 1210 | 405 | 499 | 603 | 105 |
| **28** | 49 | 1477 | 1944 | 467 | 805 | 1153 | 348 | 499 | 575 | 76 |
| **29** | 49 | 1368 | 1778 | 409 | 793 | 1066 | 273 | 498 | 584 | 86 |
| **30** | 49 | 1368 | 1754 | 386 | 793 | 854 | 60 | 498 | 550 | 53 |
| **31** | 49 | | | | 792 | 858 | 66 | 497 | 556 | 59 |
| **32** | 49 | 1367 | 1417 | 50 | 792 | 856 | 64 | 497 | 538 | 41 |
| **33** | 49 | 1367 | 1610 | 243 | 787 | 875 | 88 | 467 | 531 | 65 |
| **39** | 49 | 1370 | 1845 | 474 | 789 | 886 | 97 | 393 | 462 | 69 |
| **40** | 49 | 1374 | 1938 | 564 | 792 | 919 | 127 | 395 | 449 | 55 |
| **51** | 49 | 1382 | 2187 | 805 | 800 | 1254 | 454 | 401 | 456 | 55 |
| **56** | 49 | 1367 | 2203 | 835 | 789 | 1268 | 480 | 393 | 493 | 100 |
| **59** | 49 | 1361 | 2022 | 662 | 785 | 1250 | 466 | 390 | 457 | 67 |
| **66** | 49 | 1360 | 1883 | 523 | 784 | 1098 | 315 | 390 | 491 | 101 |

| | APTRANSCO | | | | KPTCL | | | KSEB | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Block.No. | Freq (Hz) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) | Schedule (MW) | Actual Drawal (MW) | Overdrawal (MW) |
| **67** | 49 | 1360 | 1891 | 531 | 784 | 1059 | 275 | 390 | 461 | 71 |
| **68** | 49 | 1360 | 1768 | 408 | 784 | 1074 | 290 | 390 | 453 | 63 |
| **70** | 49 | 1295 | 1616 | 321 | 750 | 1028 | 278 | 289 | 380 | 91 |
| **71** | 49 | 1295 | 1581 | 286 | 750 | 952 | 203 | 289 | 344 | 55 |
| **72** | 49 | 1266 | 1519 | 253 | 724 | 955 | 231 | 260 | 354 | 94 |
| **73** | 49 | 1236 | 1422 | 186 | 701 | 925 | 224 | 265 | 368 | 103 |
| **76** | 49 | 1226 | 1381 | 155 | | | | 387 | 456 | 69 |
| **77** | 49 | 1293 | 1347 | 54 | | | | 387 | 437 | 51 |
| **81** | 49 | 1259 | 1362 | 103 | | | | 384 | 396 | 12 |
| **82** | 49 | 1259 | 1369 | 110 | | | | | | |
| **83** | 49 | | | | 692 | 795 | 103 | 384 | 395 | 10 |
| **87** | 49 | 1250 | 1282 | 32 | 686 | 824 | 138 | 331 | 425 | 94 |
| **89** | 49 | 1231 | 1318 | 87 | 706 | 865 | 159 | 249 | 479 | 231 |
| **90** | 49 | 1231 | 1500 | 269 | 706 | 720 | 15 | 249 | 328 | 79 |
| **91** | 49 | 1238 | 1446 | 208 | 711 | 793 | 82 | 255 | 270 | 15 |
| **92** | 49 | 1238 | 1494 | 256 | 711 | 919 | 208 | 255 | 275 | 19 |

Note:

1. The time blocks in which average frequency was 49.02 Hz or above are not indicated in the table.
2. For the time blocks left empty, for a utility, there was no significant overdrawals by the concerned utility.

**Annexure V**

**DAY-WISE CONSOLIDATED STATEMENT OF OVER-DRAWAL AT FREQUENCY 49.02 HZ OR BELOW**

**JULY 2008**

| Date | % of time frequency remained at 49.02 Hz or below | APTRANSCO | KPTCL | KSEB | TNEB |
|---|---|---|---|---|---|
| | | Over Drawal (MU) | Over Drawal (MU) | Over Drawal (MU) | Over Drawal (MU) |
| 1-Jul-08 | 19.60 | 1.64 | 0.31 | 0.46 | 1.83 |
| 2-Jul-08 | 23.90 | 1.48 | 0.63 | 0.74 | 1.74 |
| 3-Jul-08 | 40.00 | 5.02 | 1.84 | 0.88 | 4.59 |
| 4-Jul-08 | 35.00 | 4.29 | 1.48 | 1.55 | 4.00 |
| 5-Jul-08 | 42.20 | 2.40 | 1.39 | 1.32 | 3.36 |
| 6-Jul-08 | 6.00 | 0.71 | 0.38 | 0.32 | 0.33 |
| 7-Jul-08 | 6.30 | 0.96 | 0.57 | 0.54 | 0.70 |
| 8-Jul-08 | 18.30 | 1.19 | 0.79 | 1.45 | 1.45 |
| 9-Jul-08 | 10.40 | 1.17 | 0.70 | 0.96 | 0.77 |
| 10-Jul-08 | 15.80 | 0.66 | 0.74 | 0.79 | 1.24 |
| 11-Jul-08 | 22.40 | 1.31 | 1.40 | 0.76 | 0.93 |
| 12-Jul-08 | 23.20 | 2.04 | 1.91 | 0.92 | 1.98 |
| 13-Jul-08 | 22.90 | 5.99 | 3.13 | 1.92 | 5.06 |
| 14-Jul-08 | 67.30 | 6.98 | 6.45 | 2.53 | 9.12 |
| 15-Jul-08 | 91.40 | 3.59 | 3.00 | 0.77 | 2.58 |
| 16-Jul-08 | 78.50 | 3.59 | 0.72 | 0.38 | 1.52 |
| 17-Jul-08 | 72.90 | 2.06 | 0.91 | 0.57 | 0.86 |
| 18-Jul-08 | 61.70 | 3.29 | 2.66 | 0.72 | 0.83 |
| 19-Jul-08 | 20.60 | 3.24 | 3.07 | 0.69 | 0.23 |
| 20-Jul-08 | 25.30 | 0.90 | 2.40 | 0.30 | 0.80 |
| 21-Jul-08 | 34.30 | 1.45 | 2.95 | 1.55 | 0.27 |
| 22-Jul-08 | 65.70 | 1.51 | 2.19 | 1.04 | 0.92 |
| 23-Jul-08 | 55.20 | 2.23 | 2.11 | 0.81 | 0.19 |
| 24-Jul-08 | 22.90 | 2.54 | 2.92 | 0.95 | 0.08 |
| 25-Jul-08 | 21.30 | 3.68 | 2.33 | 0.76 | 0.00 |
| 26-Jul-08 | 17.00 | 2.36 | 1.66 | 0.28 | 0.02 |
| 27-Jul-08 | 2.20 | 0.75 | 0.57 | 0.12 | 0.06 |
| 28-Jul-08 | 1.50 | 0.17 | 0.00 | 0.07 | 0.00 |
| 29-Jul-08 | 10.30 | 0.89 | 0.17 | 0.12 | 0.05 |
| 30-Jul-08 | 27.10 | 4.97 | 1.02 | 0.58 | 0.10 |
| 31-Jul-08 | 19.20 | 4.71 | 1.11 | 0.20 | 0.02 |
| **TOTAL** | | **77.76** | **51.52** | **25.05** | **45.61** |
| **MAX** | 91.40 | 6.98 | 6.45 | 2.53 | 9.12 |
| **MIN** | 1.50 | 0.17 | 0.00 | 0.07 | 0.00 |
| **AVERAGE** | 31.63 | 2.51 | 1.66 | 0.81 | 1.47 |

**Annexure VI**

PLANNING TO MEET THE CONSUMER LOAD

(In compliance with clause 6.4.5 of IEGG)

State : ……

Period : First week of ……., 2009

Submitted by : ……

| SL. NO. | | MORNING PEAK (MW) | EVENING PEAK (MW) | DAILY ENERGY (Mu) |
|---|---|---|---|---|
| 1. | Forecast of total consumer load | …. | …. | …. |
| 2. | Consumur load planned to be met | ….. | ….. | ….. |
| 3. | Intra-State T&D loss (estimated) | …. | ….. | ….. |
| 4. | Total of 2 & 3 | ….. | ….. | ….. |
| 5. | Installed capacity of Intra-State generation, including IPPs (MW) | | | |
| | (a) Thermal | ….. | | |
| | (b) Hydro | ….. | | |
| | (c) Others | …... | | |
| | (d) Total | …… | | |
| 6. | Expected ex-power plant availability of intra-State generation (after allowing for plant outages and auxiliary consumption) | | | |
| | (a) Thermal | ….. | …… | …… |
| | (b) Hydro | ….. | …… | …… |
| | (c) Others | …… | …… | …… |
| | (d) Total | …… | …… | …… |

| | | | | |
|---|---|---|---|---|
| 7. | State's entitlement in installed capacity of Central generation (MW) | …… | | |
| 8. | Expected entitlement in Central generation on State periphery (after allowing for plant outages, auxiliary consumption and ISTS losses) | | | |
| | | ….. | …… | ….. |
| 9. | Power proposed to be procured from other sources | ….. | …… | ….. |
| 10. | Total of 6(d), 8 & 9 | ….. | …… | ….. |
| 11. | Surplus (+) / deficit (-) i.e. (4 – 10) | ….. | …… | ….. |

Dated : ……..

Name & Designation :……