

POWER GRID CORPORATION OF INDIA LTD.  
N.R.L.D.C.,NEW DELHI-110016



**QUARTERLY REPORT FOR THE PERIOD OCTOBER TO DECEMBER 2001.**

**A : POWER SUPPLY POSITION**

**A-1 : REGIONAL ENERGY**

| MONTH       | ENERGY MET<br>AVG. MU/DAY | ENERGY REQUIREMENT<br>AVG. MU/DAY | ENERGY SHORTAGE IN |      |
|-------------|---------------------------|-----------------------------------|--------------------|------|
|             |                           |                                   | AVG. MU/DAY        | %    |
| OCTOBER,01  | 383.34                    | 402.93                            | 19.59              | 4.86 |
| NOVEMBER,01 | 371.68                    | 384.18                            | 12.50              | 3.25 |
| DECEMBER,01 | 378.81                    | 398.40                            | 19.59              | 4.92 |

**A-2 : REGIONAL PEAK MW**

| MONTH       | PEAK MW MET<br>MW | PEAK MW REQUIREMENT<br>MW | PEAK MW SHORTAGE IN |      |
|-------------|-------------------|---------------------------|---------------------|------|
|             |                   |                           | MW                  | %    |
| OCTOBER,01  | 20346             | 21545                     | 1199                | 5.57 |
| NOVEMBER,01 | 20072             | 21733                     | 1661                | 7.64 |
| DECEMBER,01 | 19748             | 21828                     | 2080                | 9.53 |

**B : QUALITY OF POWER SUPPLY**

**B-1 : FREQUENCY SPECTRUM**

| MONTH       | % OF TIME FREQUENCY   |                      |                         |                      | Frequency Variation Index(FVI) |         |         | AVG.FREQ.<br>Hz |
|-------------|-----------------------|----------------------|-------------------------|----------------------|--------------------------------|---------|---------|-----------------|
|             | LESS THAN<br>48.50 Hz | LESS THAN<br>49.0 Hz | BETWEEN<br>49.0-50.5 Hz | MORE THAN<br>50.5 Hz | MAXIMUM                        | MINIMUM | AVERAGE |                 |
| OCTOBER,01  | 2.84                  | 14.87                | 79.91                   | 5.22                 | 14.85                          | 1.47    | 4.75    | 49.62           |
| NOVEMBER,01 | 1.27                  | 7.72                 | 80.23                   | 12.05                | 8.65                           | 1.89    | 3.35    | 49.88           |
| DECEMBER,01 | 1.31                  | 11.74                | 81.69                   | 6.57                 | 7.37                           | 2.07    | 4.28    | 49.66           |

**B-2 : VOLTAGE AT IMPORTANT GRID POINTS**

| MONTH       | 400kV DADRI |           | 400 kV KANPUR |           |
|-------------|-------------|-----------|---------------|-----------|
|             | MAX. (kV)   | MIN. (kV) | MAX. (kV)     | MIN. (kV) |
| OCTOBER,01  | 415         | 374       | 413           | 379       |
| NOVEMBER,01 | 418         | 372       | 413           | 375       |
| DECEMBER,01 | 418         | 370       | 418           | 382       |

**C: SYSTEM CONSTRAINTS COMING IN THE WAY OF MEETING SYSTEM REQUIREMENT:**

**C1:-TRANSMISSION RELATED CONSTRAINT:**

| S.NO. | TRANSMISSION<br>CONSTRAINT                    | GENERATING<br>STATIONS<br>AFFECTED  | OTHER AGENCIES<br>AFFECTED                           | REMARKS                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------|-----------------------------------------------|-------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | BAD<br>WEATHER<br>LEADING TO<br>LINE TRIPPING | GAS STATIONS<br>& OTHER<br>STATIONS | ALL<br>CONSTITUENT<br>S OF<br>NORTHERN<br>REGION     | During the month of December,2001 a large nos. of tripping occurred in the system mainly during night hrs. and early morning hrs. due to bad weather and thick fog conditions. Many times these line tripping resulted in generation backing down and load shedding in small areas. During thick fog conditions, generation reduction/unit tripping of Gas based machines also occurred because of filter choking & high differential pressure. |
| 2     | 220kV<br>KISHENPUR-<br>PAMPORE D/C            | URI (HYDRO))<br>(480MW)             | J & K AND<br>BENEFICIARIES<br>CONSTITUENT<br>S OF NR | Tripping of this line results into separation of valley area from rest of the grid /black out in valley area and spillage of water at Uri.                                                                                                                                                                                                                                                                                                      |
| 3     | 400kV URI-<br>WAGOORA<br>D/C                  | URI (HYDRO)<br>(480MW)              | CONSTITUENT<br>S OF NR                               | Spillage of water at URI especially during high hydro season.                                                                                                                                                                                                                                                                                                                                                                                   |
| 4     | 220kV<br>TANAKPUR-<br>BAREILY D/C             | TANAKPUR<br>(HYDRO)<br>(94MW)       | CONSTITUENT<br>S OF NR                               | Spillage of water at TANAKPUR.                                                                                                                                                                                                                                                                                                                                                                                                                  |

**C2:- CONSTRAINT DUE TO DISTURBANCE IN THE GRID:**

System disturbances / Grid incidents occurred during this quarter are appended at Annexure-I.

**D: GENERATION/TRANSMISSION SYSTEM ELEMENT ADDITION:**

1. LILO of 400 kV Singrauli-Kanpur-I at Allahabad S/Stn. was completed at 21:04 hrs of 27.10.2001.
2. Suratgarh #3(250 MW) of Rajasthan Rajya Vidut Utpadan Nigam Limited (RRVUNL) was commissioned on 08.12.2001 at 18:33 hrs..

**E: SPECIAL MENTION**

-----NIL-----



| S No. | DATE       | TIME  | INCIDENT                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------|------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | 08.10.2001 | 14:12 | All the running units at Anpara TPS (Total generation 1350MW ) tripped alongwith 400 kV Anpara-Unnao line due to tripping of Circulating water pump. Auxiliary supply failure was the reason for tripping of CW Pumps.The units were restored by 16:30 hrs.                                                                                                                                                                                                    |
| 2     | 30.10.2001 | 20:35 | Power Supply in Kashmir Valley area of J&K were interrupted due to tripping of 220 kV Kishanpur-Pampore D/C line on phase to phase fault .Generation at Uri and Valley load were revived by 21:06 hrs. of 30.10.2001.                                                                                                                                                                                                                                          |
| 3     | 18.11.2001 | 4:29  | All the 400/220 kV ICTs at Moradabad and Muradnagar substation of UPPCL tripped, which resulted in loss of load of the order of 900 MW. System frequency excused to the level of 51.20 Hz from 49.00 Hz. The incident started with breaking of 220 kV side jumper of ICT-I at Moradabad. The other ICTs tripped on overload. All the ICTs were put back into service by 05:45 hrs. except ICT-I at Moradabad which was normalized by 15:38 hrs. of 18.11.2001. |
| 4     | 12.12.2001 | 5:50  | All the running units at Bhatinda & Lehra-Mohabat thermal power house of PSEB tripped (Generation loss of the order of 700 MW) due to tripping of many lines in that area and consequently evacuation problem. All the tripped units were normalized by 13:30 hrs.Of 12.12.2001.                                                                                                                                                                               |
| 5     | 12.12.2001 | 22:25 | Incident similar to that of 05:50 hrs. of 12.12.2001 occurred again. All the tripped units were revived back by Morning hrs. of 13.12.2001.                                                                                                                                                                                                                                                                                                                    |
| 6     | 12.12.2001 | 23:00 | All the running units at Panipat thermal power house of HVUNL tripped (Generation loss of the order of 550 MW) due to tripping of all the 220 kV circuits between Panipat (Th) and Panipat(BBMB) sub-stations. Generation at Panipat were normalized by morning Of 13.12.2001.                                                                                                                                                                                 |