

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



QUARTERLY REPORT FOR THE PERIOD JULY TO SEPTEMBER 2001.

A . POWER SUPPLY POSITION

A-1 : REGIONAL ENERGY

MONTH	ENERGY MET AVG. MU/DAY	ENERGY REQUIREMENT AVG. MU/DAY	ENERGY SHORTAGE IN	
			AVG. MU/DAY	%
JULY,01	401.46	427.37	25.91	6.06
AUGUST,01	412.44	441.03	28.59	6.48
SEPTEMBER,01	414.57	440.1	25.53	5.80

A-2 : REGIONAL PEAK MW

MONTH	PEAK MW MET MW	PEAK MW REQUIREMENT MW	PEAK MW SHORTAGE IN	
			MW	%
JULY,01	20216	21559	1343	6.23
AUGUST,01	20533	22442	1909	8.51
SEPTEMBER,01	21586	22589	1003	4.44

B . QUALITY OF POWER SUPPLY

B-1 : FREQUENCY SPECTRUM

MONTH	% OF TIME FREQUENCY				FVI			AVG.FREQ. HZ
	LESS THAN 48.50 Hz	LESS THAN 49.0 Hz	BETWEEN 49.0-50.5 Hz	MORE THAN 50.5 Hz	MAXIMUM	MINIMUM	AVERAGE	
JULY,01	0.48	7.65	83.10	9.25	7.53	1.34	3.42	49.77
AUGUST,01	1.16	9.30	80.31	10.39	8.92	1.31	3.61	49.80
SEPTEMBER,01	3.65	21.33	75.62	3.05	13.04	1.47	6.08	49.47

B-2 : VOLTAGE AT IMPORTANT GRID POINTS

MONTH	400kV DADRI		400 kV KANPUR	
	MAX. (kV)	MIN. (kV)	MAX. (kV)	MIN. (kV)
JULY,01	416	362	419	377
AUGUST,01	422	366	420	380
SEPTEMBER,01	416	358	417	377

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

C1:-TRANSMISSION RELATED CONSTRAINT:

S.NO.	TRANSMISSION CONSTRAINT	GENERATING STATIONS AFFECTED	OTHER AGENCIES AFFECTED	REMARKS
1	RIHAND-DADRI HVDC-POLE-I & II	SINGRAULI / RIHAND / ANPARA / OBRA	ALL CONSITUENTS OF NORTHERN REGION	The pole gone under outage on 02.07.2001 and 21.07.2001. During the period of outage of Bipole, power transmission capacity in East-West corridor of Northern Region reduces by 1500MW. Generation backdown at power station viz Singrauli/Rihand/Anpara/Obra has been carried out for safe and secure operation of regional grid.
2	220kV KISHENPUR- PAMPURE D/C	URI(HYDRO) (480MW)	J & K AND BENEFICIALIES CONSITUENTS 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- WAGOORA D/C	URI(HYDRO) (480MW)	CONSITUENTS OF NR	Spillage of water at URI especially during high hydro season.
4	220kV TANAKPUR- BAREILY D/C	TANAKPUR(HY DRO) (94MW)	CONSITUENTS 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. Panipat # 6 (210MW) of HPGCL synchronized at 04:13 hrs of 05.07.2001.
2. Malana #1(43MW) and Malana #2 (43MW) were commissioned on 04.07.2001 & 08.07.2001 respectively in Himachal Pradesh by Malana Power Company(IPP).
3. LILO of Singrauli-Allahabad-Kanpur-II was completed at 15:20hrs of 08.07.2001.
4. Commissioning of 220 kV Samaypur-Palla D/C was completed with charging of circuit-II at 16:28 hrs of 24.07.2001.
5. 400/220kV ,315MVA ICT-2 was commissioned at Agra S/S of UPPCL on 08.08.2001

E-SPECIAL MENTION

*** All time high Availability of 21586 MW achieved in Northern Region on 11th September 2001.**

S No.	DATE	TIME	INCIDENT
1	02.07.2001	00:10	± 500 kV Rihand-Dadri HVDC pole-I tripped due to B ph converter transformer problem at Rihand end. This resulted in outage of both poles since pole-II was already out since 26.06.2001 due to Y ph converter transformer problem. HVDC pole-I was brought back into service at 01:28 hrs of 02.07.2001. During the above period loading of AC trunk lines were controlled by backing down of generation at Singrauli/Rihand/Anpara complex.
2	21.07.2001	12:51	± 500 kV Rihand-Dadri HVDC bipole tripped due to lightning stroke and spurious signal at Rihand end. Pole-I & II were normalized at 13:22hrs and 14:24hrs of 21.07.2001 respectively.
3	21.07.2001	21:53	± 500 kV Rihand-Dadri HVDC bipole tripped due to lightning stroke and spurious signal at Rihand end. Pole-I & II were normalized at 23:11hrs and 23:15hrs of 21.07.2001 respectively.
4	27.07.2001	21:31	All the 220 kV circuits emanating from Agra (UPPCL) tripped due to bursting of lightning arrester of 220 kV Agra-Gokul line at Gokul end causing total interruption of power at Agra. The system was normalized at 23:11hrs.
5	29.08.2001	06:52	Due to failure of auxiliary supply at Rihand end, + 500kV Rihand-Dadri Bipole tripped at 06:52hrs along with 500 MW unit #1 at Rihand running at that time. Pole I & II were brought back into service at 07:59hrs and 08:52hrs respectively. Rihand# 1 was synchronized at 10:58 hrs.
6	31.08.2001	04:45	All running units at Obra thermal power station (unit #3,6,7,9,10,11,12) tripped at 04:45 hrs (generation loss of around 750MW) due to bursting of B phase bushing of 240 MVA 400/220 kV transformer. Units were revived by evening hours of 29.08.2001. At the time of tripping weather was inclement with lightning and thunder.

7	04.09.2001	12:07	Singrauli unit # 6 & 7 (500MW each) tripped simultaneously due to tripping of Circulating water pump. Units 6 & 7 were synchronised by 13:54 and 15:45 hrs. respectively.
8	12.09.2001	05:05	400 kV Agra-Muradnagar and 400 kV Agra-Unnao line tripped along with ICT at Agra(UPPCL). The system normalized by 06:12 hrs.
9	20.09.2001	10:56	Four running units each of 210 MW at Obra TPS tripped alongwith 400 kV Obra-Anpara line.All the units were synchronized by 14:16 hrs.
10	25.09.2001	12:03	220 kV Badarpur-Indraprashth Extn. Tripped on earth fault which resulted in tripping of all the I.P, Rajghat & Delhi(GT) stations causing a generation loss of around 300 MW. The circuits were charged at 12:10 hrs but again tripped at 12:58hrs on the same reason. Finally both circuits were charged at 13:49hrs and units were synchronized before evening peak hours.
11	26.09.2001	11:05	An incident occurred in Delhi system similar to that of 25.09.2001.The system restored before evening peak hrs. of 26.09.2001.