

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



QUARTERLY REPORT FOR THE PERIOD APRIL TO JUNE 2002.

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	%
APRIL,02	365.92	399.12	33.2	8.32
MAY,02	394.48	425.97	31.49	7.39
JUNE,02	418.96	454.92	35.96	7.90

A-2 : REGIONAL PEAK MW

MONTH	PEAK MW MET MW	PEAK MW REQUIREMENT MW	PEAK MW SHORTAGE IN	
			MW	%
APRIL,02	18779	20798	2019	9.71
MAY,02	20173	21758	1585	7.28
JUNE,02	20773	22384	1611	7.20

B : QUALITY OF POWER SUPPLY

B-1 : FREQUENCY SPECTRUM

MONTH	% OF TIME FREQUENCY				Frequency Variation Index(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	
APRIL,02	0.48	3.63	77.47	18.90	5.90	1.25	2.78	50.04
MAY,02	0.14	2.35	68.56	29.09	7.64	1.56	3.41	50.13
JUNE,02	0.83	9.33	68.77	21.90	10.19	2.27	4.28	49.92

B-2 : VOLTAGE AT IMPORTANT GRID POINTS

MONTH	400kV DADRI		400 kV KANPUR	
	MAX. (kV)	MIN. (kV)	MAX. (kV)	MIN. (kV)
APRIL,02	422	374	420	382
MAY,02	434	368	431	380
JUNE,02	414	348	420	380

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	220kV KISHENPUR- PAMPORE D/C	URI (HYDRO)) (480MW)	J & K AND BENEFICIARIES CONSTITUENT 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.
2	400kV URI- WAGOORA D/C	URI (HYDRO) (480MW)	CONSTITUENT S OF NR	Spillage of water at URI especially during high hydro season.
3	220kV TANAKPUR- BAREILY D/C	TANAKPUR (HYDRO) (94MW)	CONSTITUENT 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. Pragati GT #1(108 MW) of Pragati Corporation of Delhi has been commissioned on 25.05.2002 at 14:20 hrs..
2. 400/220 kV,315 MVA, ICT #4 at Ballabgarh has been commissioned on 30.06.2002 at 22:23 hrs.

E: SPECIAL MENTION

-----NIL-----

S No.	DATE	TIME	INCIDENT
1	19.04.2002	12:48	An incident occurred in Punjab system, in which all the four running units at Bhatinda TPS and one running unit at Lehra Mohabat TPS tripped due to mal-operation of bus-differential protection at 220 kV Lehra Mohabat Sub-station. The generation loss was of the order of 600 MW. All the tripped units were brought back on bar by 17:30 hrs. of the same day.
2	23.04.2002	10:30	An incident occurred in Delhi system reportedly due to blasting of B-phase CT of 220 kV IP-Rajghat Ckt-II. This resulted in total loss of generation at IP (68 MW) and Rajghat (68 MW) and loss of power supply (400-500 MW) in Central parts of Delhi. The system were normalised by 11:00 hrs. The tripped units were brought back in service by 15:35 hrs.
3	26.04.2002	10:20	An incident occurred in UP system, in which all the running units at Anpara TPS (1300 MW) and three units at Obra TPS (350 MW) tripped. System frequency dropped from initial level of 50.34 Hz to 48.20 Hz. Further fall in system frequency was arrested by partial operation of under frequency relay installed at 48.20 Hz. However, frequency was brought back to normal level by increasing the generation at other thermal stations. Obra units were tripped due to fault in 220 kV bus and Anpara units (#4 & #5) were tripped due to failure of Cooling Water Pumps. The system was normalized by 19:00 hrs.
4	06.05.2002	17:29	An incident occurred in Delhi system with the tripping of 220 kV Mandola-Patparganj D/C. All the running units at IP (97 MW) and Rajghat (122 MW) tripped because of evacuation problem. Load shedding had to resort mainly in eastern part of Delhi. All the tripped units were brought back in service by 19:40 hrs.
5	14.05.2002	11:15	An incident occurred in Harayana system; in which tripping of 400/220 kV, 500 MVA, ICT-II at Panipat resulted in tripping of ICT-I on overload. Cascade tripping occurred at Panipat 220 kV station and all the running units at Panipat (generation loss of 400 MW) also tripped. Above tripping resulted into total supply failure in Panipat, Dhulkote, Kurukshetra and Jagadhari area of Haryana. The system was normalized by 12:10 hrs.

6	18.05.2002	18:44	An incident occurred in Delhi system with the tripping of 220 kV Mandola-Patparganj D/C and IP-IPext. D/C. All the running units at IP (90 MW) and Rajghat (122 MW) tripped because of evacuation problem. Power supply was affected mainly in central & eastern part of Delhi. The system was normalized by 20:30 hrs.
7	23.05.2002	01:30	An incident occurred in UP system, in which all the running units at Anpara TPS (1600 MW) tripped. System frequency dropped from initial level of 49.80 Hz to 48.16 Hz. Further fall in system frequency was arrested by partial operation of df/dt relay and by under frequency relay installed at 48.20 Hz. However, frequency was brought back to normal level by carrying out load shedding. Anpara units were tripped due to auxiliary supply failure. The system was normalized by 13:00 hrs.
8	07.06.2002	17:03	An incident occurred in Delhi/HVPN/BBMB system; which caused load-shedding of around 800 MW in Delhi area. The incident initiated with fault at bus-section 2A of 220 kV Samaypur S/Stn. resulted in tripping of Ballabhgarh I & II, FGPP-II and Dadri ckt. at samaypur end. 220 kV Samaypur-Ballabhgarh ckt.-III tripped on overload. At Badarpur, all the running units and lines tripped reportedly due to heavy voltage jerk. The generation loss occurred at Badarpur (685 MW), IP (84 MW), Rajghat (96 MW) and Faridabad Th. (135 MW). The system was normalized by 1800 hrs. And most of the units were synchronized by 1900 hrs.
9	21.06.2002	10:08	An incident occurred in Delhi system; resulting in complete outage of BTPS (697 MW), IP (37 MW), GT (128 MW), Pragati (104 MW) & Rajghat (97 MW) and disruption in power supply to south and central Delhi area. The Delhi network was restored by 1100 hrs. And power supply normalized progressively with the synchronization of units at BTPS.
10	25.06.2002	21:15	At 400 kV Lucknow S/Stn, bus bar protection operated owing to problem in 'B' phase CT of Singrauli line. This resulted in tripping of all the circuits emanating from Lucknow S/Stn. However grid remained normal and all the tripped circuits were revived subsequently.