

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



QUARTERLY REPORT FOR THE PERIOD JANUARY TO MARCH 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	%
JANUARY,02	380.16	406.17	26.01	6.40
FEBRUARY,02	374.26	392	17.74	4.53
MARCH,02	380.8	398.63	17.83	4.47

A-2 : REGIONAL PEAK MW

MONTH	PEAK MW MET MW	PEAK MW REQUIREMENT MW	PEAK MW SHORTAGE IN	
			MW	%
JANUARY,02	19787	21452	1665	7.76
FEBRUARY,02	19714	21390	1676	7.84
MARCH,02	19937	21481	1544	7.19

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	
JANUARY,02	1.19	12.04	80.87	7.09	8.65	1.95	4.43	49.65
FEBRUARY,02	0.54	5.57	76.25	18.18	6.23	1.97	3.49	49.93
MARCH,02	0.07	0.69	67.27	32.04	3.28	1.19	2.30	50.22

B-2 : VOLTAGE AT IMPORTANT GRID POINTS

MONTH	400kV DADRI		400 kV KANPUR	
	MAX. (kV)	MIN. (kV)	MAX. (kV)	MIN. (kV)
JANUARY,02	422	376	424	379
FEBRUARY,02	432	368	422	380
MARCH,02	424	380	415	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	BAD WEATHER LEADING TO LINE TRIPPING	GAS STATIONS & OTHER STATIONS	ALL CONSTITUENT S OF NORTHERN REGION	During the month of January,2002 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 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.
3	400kV URI- WAGOORA D/C	URI (HYDRO) (480MW)	CONSTITUENT S OF NR	Spillage of water at URI especially during high hydro season.
4	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. 400 kV Suratgarh-Ratangarh ckt.-I commissioned on 04.01.2002. The line was earlier charged at 220 kV.
2. Suratgarh #4(250 MW) of Rajasthan Rajya Vidut Utpadan Nigam Limited (RRVUNL) was commissioned on 25.03.2002 at 19:10 hrs..

E: SPECIAL MENTION

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S No.	DATE	TIME	INCIDENT
1	09.01.2002	01:45	In this disturbance Southern Rajasthan and parts of Western Rajasthan system separated from main Grid and collapsed. All the running units at Kota TPS, Suratgarh TPS, Anta GPS, RAPP-A & RAPP-B were tripped along with the connected transmission network which resulted in total loss of supply. The incident initiated due to automatic closing of circuit breaker of faulty 132 kV Kota(S)-Sangod line at Kota (S) end, because of low air pressure.
2	15.01.2002	00:27	An incident occurred in Delhi/BTPS/BBMB/HVPN system in which units at BTPS (#1,2 & 5) & Delhi GT got separated from rest of the Grid and continued to operate in islanded mode. The Island experienced wild frequency fluctuation due to small size of island (around 300 MW) & absence of free governor action. In this incident all the running units at Faridabad gas, Faridabad(Th) & BTPS (#3 & 4) were also tripped. The Island syn-chronised with main Grid at 01:50 hrs.
3	10.02.2002	20:54	In this incident Y-phase bushing of Circuit Breaker of 400 kV Anpara-Unnao line at Unnao end caught fire. All the element connected with 400 kV Unnao Sub-station namely Unnao-Agra, Unnao-Anpara, Unnao-Panki, Unnao-Lucknow, Unnao-Bareilly D/C and 400/220 kV ICTs were hand tripped. However, Grid remained normal and all the system element were put back into service by 01:30 hrs. of 11.02.2002.
4	22.02.2002	19:35	All the running units at Panipat Thermal Power Station of HPGCL (generation loss of the order of 450 MW) tripped because of evacuation problem. All the four 220 kV lines between Panipat and Sewah ; evacuating power from Panipat Thermal Power Station ; reportedly tripped due to earth fault. All the units were brought back on bar by 23:45 hrs.
5	16.03.2002	07:17	In this incident 400 kV Dadri-Mandaula ckt –I tripped due to brusting of Y-phase CT at Mandaula end . 400 kV Dadri-Mandaula ckt-II also tripped subsequently . The whole Grid including Delhi system marginally saved from collapse by backing down generation at Singrauli/Rihand and commensurate load-shedding in Delhi/Harayana. Both the circuits were normalized at 07:37 hrs. & 10:11 hrs. respectively.