

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.10/SM/2015

Coram:

**Shri Gireesh B Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

Date of Order: 12.10.2015

In the matter of

Investigation of Line Outage due to Tower Collapse in Northern Region on during April 2015 to June 2015 (1st Qtr. of 2015-16)

And

In the matter of

1. Power Grid Corporation of India Limited,
"Saudamani", Plot No.2,
Sector-29, Near IFFCO Chowk,
Gurgaon -122001 (Haryana)
2. Power System Operation Corporation Limited (POSOCO),
B-9, 1st Floor, Qutub Institutional Area,
Katwaria Sarai,
New Delhi 110 016
3. Central Electricity Authority
Sewa Bhawan
R.K. Puram
New Delhi-110066

...Respondents

ORDER

In discharge of its responsibility under Rule 4 (j) of NLDC Rules, 2005, NLDC has submitted to CEA and CTU the report on "Operational Feedback on Transmission Constraints' for the quarter April to June, 2015(1st quarter of 2015). A copy of the report has been endorsed to the Commission vide NLDC's letter dated 21.7.2015.



2. In para 1.6 of the report, NLDC has given a list of 21 no. of 400 kV and above lines and 4 No of 220 kV lines where some towers have collapsed during the first quarter of 2015 leading to line outage. Out of the 25 lines, PGCIL is the owner of 17 lines and the remaining lines belong to UPPCL, RRVPNL, WBSETCL. NLDC has further stated in the report that the number of tower collapse is more during the first quarter of 2015 compared to the corresponding quarter in the year 2014-15. The relevant para of the report is extracted as under:-

“Comparing the first quarter of 2014 (viz. April, May, June) and the first quarter of 2015, there is an increase in the 765 kV tower collapse/damages. The comparison table is give below. It is important that these failures are investigated thoroughly and the root cause identified and the remedial vulnerable. In the eventually that the investigations indicate that all these outages are in the nature of force majeure (which again appears improbable considering the geographically widespread nature of these incidents), it calls for a re-look at the transmission planning criteria. In case the reasons for failure are otherwise, it calls for a re-look of the operation and maintenance practices and the need to secure and protect critical infrastructure such as transmission lines.

Voltage Level	No. Of tower collapse in the first quarter in 2014-15	No. Of tower collapse in the first quarter in 2015-16
765 kV	3	9
400 kV	9	12
Total	12	21

3. The Commission is concerned about the rising incidents of tower collapse. The Commission accordingly directs the CEA and CTU to investigate into the incidents of tower collapse during the 1st quarter of 2015 and submit reports containing the reasons for tower collapse. CTU is also directed to explain the reasons where the revival time of the towers has exceeded 30 days.

4. POSOCO (NLDC) is directed to submit a report containing the details of impact of tower collapses during the 1st quarter of 2015 and the consequent line tripping on the



system operation and grid security, the action taken by concerned RLDCs in this regard and the response of the constituent entities to the directions of RLDCs.

5. The reports as per the directions above shall be submitted by CEA, CTU and POSOCO (NLDC) by 30.11.2015.

6. It is also noticed from the list of transmission lines at Annexure, five lines are owned by UPPTCL, RRVPNL and WBSETCL. In case of three transmission lines of UPPTCL, the revival time ranges from 44 days to 345 days. In case of two transmission lines of RRVPNL, the revival time is 76 days and 97 days. Though the transmission system of UPPTCL, RRVPNL and WBSETCL fall under the jurisdiction of the respective State Commissions, their outage on account of tower collapse affect the safe and secure operation of the national grid. We request the concerned State Commission to look into the reasons for tower collapse and the unusually long time take to revive the towers.

7. The matter shall be listed for further directions on 3.12.2015.

sd/-

(Dr. M.K. Iyer)
Member

sd/-

(A.S. Bakshi)
Member

sd/-

(A.K. Singhal)
Member

sd/-

(Gireesh B. Pradhan)
Chairperson



Annexure

DETAILS OF LINE OUTAGE DUE TO TOWER COLLAPSE AND REVIVAL DURING 1ST QUARTER OF 2015

S. No.	Line	Voltage	Region	Owner	Outage Date	Outage Time	Revival date	Revival Time	Reason	Td* (days)
1	Mainpuri-Paricha-I	400	NR	UPPTCL	31.05.14	1735	11.05.15	1127	Towers Collapsed	345
2	Mainpuri-Paricha-II	400	NR	UPPTCL	31.05.14	1735	09.05..15	1141	Towers Collapsed	342
3	Akal-Barmer-I	400	NR	RRVNL	15.02.15	723	22.05.15	0855	Towers Collapsed	97
4	Anta RS-Phagi-I	765	NR	RRVNL	14.03.15	1813	30.05.15	1055	Towers Collapsed	76
5	Raipur-KSK-I & II	400	WR	PGCIL	25.04.15	1731	06.05.15	2034 & 2039	Towers Collapsed	12
6	Tamnar-Raipur-I	400	WR	PGCIL	25.04.15	1732	23.05.15	1152	Towers Collapsed	28
7	Tamnar-Raipur-II	400	WR	PGCIL	25.04.15	1732	03.05.15	2355	Towers Collapsed	6
8	Unnao-Lucknow	400	NR	UPPTCL	28.04.15	0632	12.06.15	1103	Towers Collapsed	44
9	VTPS-Satna-I & II	400	WR	PGCIL	13.05.15	1335	26.05.15	2233&2259	Towers Collapsed	13
10	Fatehpur-Gaya	765	NR/ER	PGCIL	14.05.15	1425	02.06.15	2112	Towers Collapsed	18
11	Fatehpur-Gaya	765	NR/ER	PGCIL	12.06.15	1425	26.06.15	2102	Tower Damaged	14
12	Satna-Bina-I	765	WR	PGCIL	16.05.15	1414	26.05.15	0236	Towers Collapsed	10
13	Agra-Meerut	765	NR	PGCIL	19.05.15	1803	03.06.15	1813	Towers Collapsed	15
14	Satna-Bina-II	765	WR	PGCIL	19.05.15	2008	31.05.15	1336	Towers Collapsed	41
15	FarakkA-Gurgapur-II	400	ER	PGCIL	24.05.15	1810	12.06.15	1443	7 Towers Collapsed	19
16	Sagardighi - Durgapur-II	400	ER	WBSET CL	24.05.15	1842	12.06.15	1924	2 Towers Collapsed	19
17	Sagardighi - Durgapur-I	400	ER	WBSET CL	24.05.15	1842	12.06.15	1936	2 Towers Collapsed	19
18	Bina-Gwalior III	765	WR	PGCIL	02.06.15	1718	20.06.15	1923	Tower Damaged	18
19	Bhilai-Koradi	400	WR	PGCIL	06.06.15	0849'	08.06.15	1930	Tower Damaged	2
20	Dharamjai garh-New Ranchi-II	765	WR/ER	PGCIL	16.06.15	0719'	21.06.15	1946	Tower Damaged	5
21	Agra-Jhatikara	765	NR	PGCIL	23.06.15	1622	27.06.15	2056	Tower Damaged	4

