

**GOVERNMENT OF INDIA
POWER
LOK SABHA**

STARRED QUESTION NO:103
ANSWERED ON:01.03.2001
FAILURE OF NORTHERN GRID
CHANDRA BHUSHAN SINGH;RAMPAL SINGH

Will the Minister of POWER be pleased to state:

- (a) whether the collapse of power grid in U.P. on January 2, 2001 resulted in total darkness and chaos in the country particularly in the Northern States;
- (b) if so, the reasons therefor;
- (c) whether the Government have conducted any follow-up probe into this failure and if so, the outcome thereof;
- (d) whether the Government have estimated the loss suffered in terms of money due to this failure;
- (e) if so, the outcome thereof and the action taken against the persons responsible therefor; and
- (f) the preventive measures being considered to avoid such situation in future?

Answer

THE MINISTER OF POWER (SHRI SURESH P. PRABHU)

(a) to (f) : A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) STARRED QUESTION NO. 103 TO BE ANSWERED IN TI LOK SABHA ON 01.03.2001 REGARDING FAILURE OF NORTHERN GRID.

(a) & (b) : Several factors contributed to the grid collapse in the Northern Region, which occurred on 2nd January, 2001. One Pole of Rihand-Dadri HVDC line was out of service from 14th December, 2000 due to multiple failure of converter transformers. This had restricted the transmission capability between the eastern part, where all pit-head generation is located and western part of the Northern Region, where major load centres are located. On the night of 1st/2nd January, 2001, a number of 220 KV and 400 KV lines of the U.P. transmission system had tripped and this imposed a severe strain on the transmission system. The transmission capability which had been impaired due to reduced capability of the Rihand-Dadri HVDC line got further eroded due to tripping of major high voltage transmission lines in UP system and this triggered grid separation and collapse.

(c) : An inquiry was ordered by the Government on 3rd January, 2001. The Chairman, Central Electricity Authority conducted the inquiry and submitted his report on 10th January, 2001.

(d) : The grid collapse of the Northern Region had caused loss due to disruption of railway traffic and loss of production in industrial units. However, it is not possible to accurately quantify the loss.

(e) : Immediately after the grid collapse, Minister of Power addressed a letter to the Chief Minister of UP and to all the Chief Ministers advising them to ensure grid discipline by restricting their drawals from the grid in accordance with their allocated quota and grid requirements. Secretary (Power) on 11.1.2001 directed Chairman, Central Electricity Authority to monitor the action taken on weekly basis for implementing the recommendations made for preventing recurrence of such incidents. Chairman, Central Electricity Authority was also directed to indicate punitive action required to be taken against those responsible for the grid collapse. The implementation of the Action Plan formulated in accordance with the recommendations made by Chairman, Central Electricity Authority is being vigorously monitored by Central Electricity Authority and Ministry of Power.

(f) : The important preventive measures being taken to avoid such incidents in future are as follows :

1. Periodic preventive and regular maintenance of all HVDC, 400 KV and 220 KV lines and sub-stations.
2. Introduction of free governor mode of operation at all generating stations.
3. Ensuring proper operation of under frequency load shedding relays in SEBs distribution systems.
4. Implementation of a rational commercial mechanism which would induce SEBs to regulate their drawal and the generators to generate power according to schedules, to enable stabilization of voltage and frequency.

5. Installation of capacitors at load centres of State Electricity Boards.