GOVERNMENT OF INDIA MINISTRY OF POWER

LOK SABHA UNSTARRED QUESTION NO.1854 ANSWERED ON 11.12.2025

CYBER SECURITY MEASURES TO SAFEGUARD THE COUNTRY'S POWER GRIDS

1854. SHRI PARSHOTTAMBHAI RUPALA:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has carried out any research or study on cyber security measures to safeguard the country's power grids from potential cyber threats and attacks, if so, the details thereof including the infrastructure and security upgrades implemented in power grids across the country during the last five years particularly in the State of Gujarat;
- (b) whether the cyber security audits were conducted on the country's power grids during the last five years and if so, the details thereof, year-wise; and
- (c) whether there have been any instances of cyber security breaches or attempted cyber attacks on the country's power grids during this period and if so, the details thereof along with the remedial and preventive measures taken by the Government?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a)& (c): The POWERGRID Centre of Excellence (CoE) in Cybersecurity at the Indian Institute of Science (IISc), Bengaluru has been established to promote research and development in cybersecurity, particularly for power grid operations and transmission systems.

Central Electricity Authority (CEA) issued the *Cyber Security in Power Sector Guidelines*, 2021 to ensure a cyber-secure power ecosystem. These guidelines provide a comprehensive cyber assurance framework and strengthen the cybersecurity governance structure across all entities in the power sector. Further, the Draft Central Electricity Authority (Cyber Security in Power Sector) Regulations, 2025 are under finalization to establish a detailed cybersecurity framework for the power sector.

Ministry of Power (MoP) established the Computer Security Incident Response Team – Power (CSIRT-Power) at CEA on 5th April, 2023 as an extended arm of CERT-In. CSIRT-Power supports utilities in detecting, responding to, managing cyber incidents, and in improving overall cybersecurity preparedness. In addition, MoP has constituted six sub-sectoral Computer Emergency Response Teams (CERTs): (Thermal, Hydro, Transmission, Grid Operation, Renewable Energy, and Distribution). Each sub-sectoral CERT has been mandated to prepare a sub-sector-specific model Cyber Crisis Management Plan (C-CMP) for coordinated response and mitigation in the event of cyber-attacks.

As per the information submitted by Gujarat Energy Transmission Corporation Limited (GETCO), in the State of Gujarat, a comprehensive cybersecurity framework has been implemented, including stricter access controls, endpoint protection, reduced system exposure, secure encrypted communication, deployment of next-generation firewalls between Remote Control Centres and the State Load Despatch Centre (SLDC), and installation of required antivirus solutions for malware protection.

In the past five years, no cybersecurity breaches or successful cyber-attacks have been reported in the operational systems of the National Load Despatch Centre.

(b): Cybersecurity audits are conducted periodically across the power sector in accordance with the Central Electricity Authority (Cyber Security in Power Sector) Guidelines, 2021. These audits are carried out by third-party cybersecurity auditors empaneled by CERT-In. In the past five years, 9 assessments of the Information Technology infrastructure (IT) and 5 assessments of the Operational Technology (OT) infrastructure have been carried out at the National Load Despatch Centre. Details are enclosed at Annexure.

Similarly, cybersecurity audits are periodically conducted by CERT-In empaneled auditors across all SLDCs, covering both IT and OT infrastructure, including Supervisory Control and Data Acquisition (SCADA) systems, the Unified Real-Time Dynamic State Measurement (URTDSM) system, and other critical assets.

ANNEXURE REFERRED IN REPLY TO PARTS (b) OF UNSTARRED QUESTION NO. 1854 ANSWERED IN THE LOK SABHA ON 11.12.2025

National Load Despatch Centre

Financial Year (FY)	IT (Month & Year)	Supervisory Control and Data Acquisition System (Month & Year)
F.Y. 2025–26	September-25 (Cycle-1)	June-25
F.Y. 2024–25	April-24 (Cycle-1), January-25 (Cycle-2)	June-24
F.Y. 2023–24	August-23 (Cycle-1), March-24 (Cycle-2)	May-23
F.Y. 2022–23	July-22 (Cycle-1), January-23 (Cycle-2)	September-22
F.Y. 2021–22	August-21 (Cycle-1), February-22 (Cycle-2)	Project Under Upgradation
