

Expert Roundtable on Policy recommendation for Cyber Security and Cyber Infrastructure in Indian Electricity Distribution System

Date: 21st September, 2022

Time: 11:0 a.m.-12:30 p.m.

Decarbonization, decentralization, and digitalization are accelerating the transformation of the power sector in India. With increasing penetration of decentralized renewable generation, especially the solar rooftop & battery energy storage systems, the electricity distribution system is finding a paradigm shift from passive to active systems. With Information and Communication Technology (ICT) getting embedded in the active distribution system as well, the power system has increased the need for the protection from cyber threats. Various initiatives in the form of legal, policy as well as operationalization of Computer Emergency Response Team (CERT-In) have been taken in the country. Information Technology (IT) Act 2000 and National Cyber Security Policy, 2013 provide the legal frameworks in India. Appointment of Chief Information Security Officer (CISOs), starting of Cyber Surakshit Bharat programme and recent amendments in the Indian Electricity Grid Code (IEGC) as well as codes of some of the states form the operational guidelines and tools for handling cyber security in Indian power systems.

While cyber security policy/guidelines and regulations needs to evolve duly taking note of development at the distribution level to ensure protection from any accidental or intentional threats. Implementation of prevailing policy, regulations and standards in the right earnest is essentially required to mitigate risks arising from cyber-attacks and recovery in a reasonable time frame.

A US-India Collaborative for Smart Distribution System with Storage (UI-ASSIST) project is presently being implemented with the support and funding from the United States Department of Energy (US, DoE) and the Department of Science & Technology (DST, Government of India) inter-alia furthering the research and policy/regulatory recommendations in this domain. This collaborative project focus to address issues related to the adoption and deployment of smart

distribution systems along with Distributed Energy Resources (DERs) and the integration of storage that will increase the system's reliability and improve its performance. Cyber infrastructure and security form one of the thematic areas of the research project which focus on the technical, operational, policy, and regulatory requirements.

TERI is convening an Experts Roundtable that aims to discuss the key issues, challenges and way forward in the policy and regulatory initiatives required for improving cyber security in the electricity distribution system of India which will help the research and guide future work. The key questions which will form the basis of discussion in the Experts Round table include the following:

- a. What are the key challenges related to cyber security in the Indian distribution system?
- b. What is the current state of affairs regarding the protection of Critical Information Infrastructure (CII) in the electricity distribution system?
- c. What are the gaps in policy related to cyber security in electricity distribution systems and how can these gaps be bridged?
- d. What will be the plan of action from a DISCOMs perspective to handle cyber security in the systems in their respective jurisdiction?
- e. What will be the proposition by the Central/State government for retrofitting of existing unprotected/poorly protected CII?