

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.954
ANSWERED ON 28.07.2025

CLIMATE RESILIENT POWER INFRASTRUCTURE FOR COASTAL AREAS

954 # SHRI DHAIRYASHIL MOHAN PATIL:

Will the Minister of **POWER** be pleased to state:

- (a) whether Government has any proposal to develop climate resilient power infrastructure specifically for coastal areas like Konkan regions and geographically specific, keeping in view the extreme weather related incidents and natural disasters;
- (b) the research and development efforts being undertaken to enhance grid resilience and efficiency in complex geographical areas beyond smart metering; and
- (c) proposed measures to promote advanced smart grid technologies including automation systems and cyber security protocols in geographical districts of Maharashtra?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a): As per Electricity Act 2003, distribution of electricity is a licensed activity and it is the duty of the respective distribution licensee to develop and maintain an efficient, safe and economical distribution system in its area of supply.

Government of India launched Revamped Distribution Sector Scheme (RDSS) in July 2021 to support distribution utilities improve their operational efficiency and financial viability. Under the scheme, Disaster/ Cyclone Resilient Works amounting to Rs. 3,088 Cr have been sanctioned for coastal areas in the States of Maharashtra, Gujarat, Kerala and Andhra Pradesh. Sanctioned works includes HT and LT underground cabling, Ring Main Unit (RMU), Ariel Bundled Cabling (ABC), augmentation of distribution transformers etc.

(b) : Disaster management plan for power sector published by Central Electricity Authority (CEA) focuses on grid resilience, disaster resistant generation, transmission and distribution network to ensure reliable power supply to all geographically specific areas, including coastal areas like Konkan region, keeping in view extreme weather related instance and natural disasters.

Further, CEA (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulations 2022 and CEA (Grid Standards) Regulation 2010 mentions about use of underground cables in coastal areas, emergency restoration system to minimize outage, GIS substation in seismic prone areas, coastal areas etc.

In addition, the report of task force on 'Cyclone Resilient Robust Electricity Transmission and Distribution Infrastructure in the Coastal Areas' constituted by Ministry of power was circulated to all stakeholders in June 2021 wherein it was requested that each coastal State/ UT may mark out areas prone to cyclone within 20 to 30 km of coast line and any new construction/ reconstruction of power system in these areas will follow a design parameter as laid down in the report.

(c) : For the State of Maharashtra, Rs 17,237 crores have been sanctioned under RDSS for distribution infrastructure works which includes substations, underground cabling, augmentation of network etc crucial for smart grid. The sanctioned work also include following:

- i. Implementation of SCADA (Supervisory Control and Data Acquisition) and DMS (Distribution Management System) worth Rs 144 Cr for the city of Mumbai.
- ii. IT/ OT works like Enterprise Resource Planning (ERP) solution, Billing Software, Load forecasting & associated tools and other IT modules worth Rs 244 Cr for BEST and MSEDCL DISCOMs.

In addition, smart metering works for 2.35 crore consumer meter, 4.1 lakh distribution transformer meter and 29,214 feeder meter have also been sanctioned under RDSS.

Further, following measures are being taken to promote cyber security of Power Sector in the country including Maharashtra:

- i. CSIRT-Power has been set up which helps the utilities in cyber incident handling and to ensure better cyber security preparedness in the power sector. CSIRT-Power has laid down Cyber Security framework and protocol for the Power Sector.
- ii. CEA issued Cyber Security in Power Sector Guidelines covering all major aspects of cyber security.
- iii. Ministry of Power has mandated that all equipment, components, and parts imported for use in power supply system and network shall be tested in the country to check for any kind of embedded malware/ trojans/ cyber threat and for adherence to Indian Standards.
- iv. Further, the Standard Bidding Document (SBD) for smart metering works under RDSS has provisions in respect of Cyber Security which cover aspects like securing communication infrastructure, cloud security requirements, cyber security incident management, etc.
