GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1465
ANSWERED ON 13.02.2025

IMPLEMENTATION OF AI TECHNOLOGY IN POWER DISTRIBUTION SYSTEM

1465. SHRI VE VAITHILINGAM:

Will the Minister of POWER
be pleased to state:

(a)   whether the Government is cognizant that the implementation of Artificial Intelligence (AI) technology, spearheading transformation across industries in recent years, can be a potential game changer in revolutionizing the power distribution system for reliable and efficient power supply and if so, the details thereof; and

(b)   the steps taken/proposed to be taken by the Government to employ AI models for the betterment of both the electrical distribution network and the consumers in diverse ways?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) :   The Central Government is aware of the transformational capabilities of implementation of Artificial Intelligence (AI) in the power sector, including in the power distribution systems.

Reliable datasets are critical in building AI models since they provide the foundation for training the models, enabling accurate predictions and decision-making. High-quality, diverse, and clearly defined data improves AI performance and reduces bias. To facilitate efficient data collection and management, the implementation of Smart Metering for consumers, along with system metering at the feeder and Distribution Transformer levels, integrated with communication-enabled Advanced Metering Infrastructure (AMI), have been undertaken under the ongoing Revamped Distribution Sector Scheme (RDSS), launched in July 2021. Budgetary Support under the Scheme is being utilized for development of applications related to the use of advanced ICT like Artificial Intelligence, Machine Learning and Blockchain Technology in the Distribution Sector.

Further, under Smart Distribution System, approved under RDSS, AI technology based works such as Distribution Transformer Health Management, IoT based monitoring of HV switchgear, Drone based asset management, etc. are also being taken up for improving the reliability and quality of power supply in Distribution Sector.

Additionally, Central Government has been actively engaging with start-ups, entrepreneurs and academia through initiatives such as Powerthon to foster continuous innovation in the power distribution sector by providing essential support by offering resources, mentorship and networking opportunities to nurture cutting-edge AI and Machine Learning technology driven ideas into viable, market-ready solutions.

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