GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2468
TO BE ANSWERED ON: 13.03.2026

ESTIMATED ENERGY AND WATER FOOTPRINT UNDER INDIAAI MISSION

2468. SHRI S. NIRANJAN REDDY:

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:

(a) the estimated energy and water footprint of the AI compute capacity being built under the India AI Mission;
(b) whether Government has conducted a grid readiness assessment to ensure reliable power supply for data centres;
(c) if so, the details thereof; and;
(d) the estimated water requirement of operational and upcoming data centres, city-wise, and the safeguards in place to prevent stress on local water resources;

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI JITIN PRASADA)

(a) to (d): The data centre industry in India is growing steadily. The total data centre capacity in the country has increased from about 375 MW in 2020 to around 1500 MW by 2025.

To support AI development, about 38,231 GPUs have been onboarded through 14 empanelled service providers/data centres under the AI compute capacity framework.

These are being provided to startups, researchers, academia and other eligible users at a subsidised average rate of ₹65 per hour. This is about one-third of the global average cost.

These Data centres are located across the country such as Mumbai, Navi Mumbai, Hyderabad, Bengaluru, Noida and Jamnagar.

The government is cognisant of the infrastructure needs of the data centre ecosystem, including electricity and water.

The expected electricity demand from the growth of AI and other large-scale data centres is factored into the planning process of government. As per information available with the Ministry of Power, electricity demand from data centres is estimated to reach 13.56 GW by 2031–32.

India’s national transmission infrastructure is continuously being expanded to meet growing electricity demand. It is adequately prepared to ensure reliable power supply across regions.

Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act, was recently passed by Parliament to strengthen the nuclear energy ecosystem.

This act will ensure the development of reliable power solutions for emerging sectors such as AI and data centres by supporting future deployment of small modular and micro nuclear reactors.

The water requirement of data centres depends on the type of cooling technologies deployed. Regulation and control of groundwater extraction, including for industrial purposes, is governed by the guidelines issued by the Ministry of Jal Shakti vide notification S.O. 3289(E) dated 24.09.2020 and amendment notification dated 29.03.2023.

To minimise water usage, the industry is adopting advanced cooling technologies such as direct-to-chip liquid cooling, adiabatic cooling and immersion cooling.

Industry is also deploying high density racks to efficiently support high-performance computing & AI workloads for further reduction of power and water consumption.

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