First national study maps India's e-truck charging needs, identifies 5 states that will account for over 70% of India's truck charging demand

ICCT's first-of-its-kind analysis finds Maharashtra, Uttar Pradesh, Rajasthan, Gujarat, and Madhya Pradesh will account for over 70% of India's truck charging demand, requiring a 9 GW network to support 1.3 lakh electric trucks by 2030.

(From left to right) Aviral Yadav, Researcher, ICCT, Amit Bhatt, India Managing Director, ICCT, Drew Kodjak, President and CEO, ICCT, Dr. Hanif Qureshi, Additional Secretary, Ministry of Heavy Industries, Arvinn Gadgil, Deputy Head of Mission, Norway Embassy, Anumita Roychowdhury, Executive Director, CSE, Harsimran Kaur, Researcher, ICCT

New Delhi, August 25, 2025 — International Council on Clean Transportation's latest study "Charging infrastructure needed to support India's full transition to battery electric truck by 2050" was launched at the India Clean Transportation Summit (ICTS) 2025 by Dr. Hanif Qureshi, Additional Secretary, Ministry of Heavy Industries in New Delhi, team members from ICCT, Arvinn Gadgil, Deputy Head of Mission, Norway Embassy and Anumita Roychowdhury, Executive Director, CSE. Organized by the International Council on Clean Transportation (ICCT), the summit focuses on advancing electrification pathways, enabling policy innovations, and mobilizing global partnerships.

This latest study assesses depot and highway charging needs for medium- and heavy-duty battery electric trucks in India through 2050.

To meet the projected demand from electric trucks, ICCT's study estimates that India will require around 9 GW of charging capacity by 2030. The estimated charging capacity is equivalent to five times Delhi's current power generation capacity. The analysis highlights that this demand is concentrated, with five states (Maharashtra, Uttar Pradesh, Rajasthan, Gujarat, and Madhya Pradesh) together accounting for over 70% of India's truck charging needs. These states sit along critical freight and logistics corridors, including the Golden Quadrilateral and the Delhi–Mumbai and Eastern Dedicated Freight Corridors, making them priority hubs for early infrastructure planning and investment.

India's net-zero by 2070 pledge requires achieving 100% zero-emission truck sales by 2050. While viable technologies exist, timely truck decarbonization is crucial to ease pressure on harder-to-abate sectors. Recent policies, including fuel efficiency regulations and the PM E-DRIVE scheme, provide incentives for battery electric trucks and charging infrastructure, but high-power chargers along freight corridors and logistics hubs can help to ensure adoption. Given state-level control over key levers such as land, tariffs, and grid capacity, a state-level assessment of charging needs is critical for effective planning.

This study assesses depot and highway charging needs for medium- and heavy-duty battery electric trucks in India, estimating charger requirements for 2030 and 2050 and mapping state-level demand using road-freight traffic data. The results of this study support four policy recommendations:

- Develop national and state level charging infrastructure roadmaps
- Coordinate grid planning for high-capacity truck charging
- Bridge data gaps in trucking movement through modern data systems
- Integrate battery electric truck charging in freight and logistics planning frameworks

Dr. Hanif Qureshi, Additional Secretary, Ministry of Heavy Industries (MHI), shared the ministry's role in steering clean freight through policy reforms and financing strategies. "Manufacturing is fast emerging as a key strength of India's automotive sector, especially in advanced technologies like batteries. While industry is best positioned to choose the most effective clean transportation solutions, the Ministry of Heavy Industries is committed to enabling this transition through policy support, demand incentives, and initiatives that strengthen India's EV ecosystem."

Amit Bhatt, India Managing Director, ICCT, underlined the need for charging infrastructure in India "As India prepares for the transition to electric trucks, building robust charging infrastructure must be a top priority. Without reliable and strategically placed charging networks along freight corridors, the adoption of electric trucks will face unnecessary roadblocks. If we get the infrastructure right today, we can ensure a smoother, faster, and more cost-effective shift to clean freight tomorrow."

Drew Kodjak, President and CEO of ICCT, emphasized India's opportunity to lead in clean freight by accelerating electric truck adoption: "Electric trucks are gaining momentum worldwide, now making up 2% of global truck sales with over 400 models available. India has a unique opportunity to leapfrog by building the charging and freight infrastructure needed to scale electric trucks. India can position itself as a frontrunner in clean freight, driving both economic growth and emissions reduction.**"**.

Arvinn Gadgil, Deputy Head of Mission, Norwegian Embassy, said "If you manage to create this breakthrough of EV transition in this one market (India) it will be recipe for potentially saving humanity."

About the summit – India Clean Transportation Summit

The International Council on Clean Transportation presented the third annual edition of India Clean Transportation Summit — a celebrated platform aimed at accelerating India's clean mobility transition. Building on the momentum of the 2023 and 2024 summits, ICTS 2025 convenes over 1000 participants, over 60 speakers, and multiple government agencies across 20 thematic sessions.

For More information on ICTS 2025, visit: https://theicct.org/icts25/

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