# THE CENTURY OF INDIA: ENGINEERING AI-DRIVEN ENERGY GROWTH



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BY SHIVANI MODY

India is on the path toward energy independence. Now is the time to leverage our potential to build the technologies of tomorrow. Operational efficiency and innovation in future-ready technologies will be the primary drivers of this mission. While we develop new solutions, we must also improve our legacy systems and technologies.

The global energy sector is a USD 7 trillion industry, and the ability to convert resources more efficiently will define the future. I am certain that this is the Century of India and, undeniably, the Age of AI.

At TCG Digital, as we create technology solutions for refineries, petrochemicals, and green energy, our focus is on maximizing EBIT and margin resilience for refineries, maximizing yield from hydrocarbons, and unlocking the potential of next-generation materials. The productivity gains we are currently achieving are phenomenal.

As an AI-centric company, we specialize in superimposing artificial intelligence onto critical infrastructure. AI is enabling refineries and plants to operate in a more predictive and insight-driven manner — from remote refinery management and early identification of potential disruptions to optimizing throughput and margins.

The current market is saturated with AI solutions, but the real challenge is scale. Lummus Digital combines decades of process expertise with machine learning, generative AI, and large language models. Its solutions, built on mcube™, convert operational data into actionable intelligence at scale. By integrating machine learning with real-time data, we create an ecosystem that reduces downtime, eliminates errors and enhances productivity.