

Gmmco's role in **POWERING** the **DIGITAL BACKBONE**



PANKAJ KUMAR JHA

Vice President, Energy and Transportation Business,
Gmmco Limited

In today's hyper-connected world, data centres form the invisible infrastructure powering everything from real-time financial transactions and streaming services to enterprise applications and AI models. Yet, their smooth functioning is anything but invisible — it relies on meticulous design, robust systems, and precision execution.

With India's data centre industry expected to more than double its capacity by 2027 — from 1,150 MW in 2024 to over 2,100 MW — the country is poised to become a global digital hub. But this growth brings with it a new set of challenges: delivering power reliability, cooling efficiency, and infrastructural resilience at scale.

At Gmmco, we view data centres not just as buildings with servers but as mission-critical environments. And our role goes beyond supplying equipment — we build trust by delivering integrated, turnkey power solutions that ensure uptime is never compromised.



THE UPTIME IMPERATIVE

Data centre downtime is no longer just a technical issue; it's a business risk. A single minute of downtime can cost a large enterprise over \$9,000 — more than 7.5 lakh — excluding reputational damage. Uptime, therefore, is not a metric; it's a commitment.

Achieving 99.995% uptime — which translates to less than 26 minutes of downtime a year — demands precision across the entire infrastructure ecosystem. Power continuity, especially, becomes the cornerstone.

POWERING PERFORMANCE, NOT JUST EQUIPMENT

Our solutions start with reliable power. Typically, a data centre relies first on the local grid, supported by express feeders and Uninterrupted Power Supply (UPS) systems. But the backbone of this reliability is the diesel generator — configured in N+1 or N+2 redundancy models to ensure seamless backup.

Take, for instance, a recent project we executed that involved deploying 35 Caterpillar gensets of 3.5 MVA each — a total capacity of over 100 MW in a single location. These high-performance gensets were delivered, installed, and commissioned by Gmmco within compressed timelines, despite multi-tier consultant reviews. What set this project apart was the seamless coordination between Caterpillar's globally renowned manufacturing and Gmmco's last-mile execution expertise.

We don't just deliver machines. We engineer resilience — through sizing, layout planning,

installation, testing, commissioning, and integration with other power systems.

BEYOND POWER: COOLING, INTEGRATION, AND EXECUTION

While power keeps the servers running, cooling keeps them alive. With rising compute densities - especially with the advent of AI and blockchain workloads — heat dissipation has become a design-critical issue.

Modern data centres now deploy cold/hot aisle containment, liquid cooling, and even immersion cooling. These systems significantly increase power requirements, making it even more crucial to have dependable backup generation that supports high electrical loads without lag.

Gmmco addresses this challenge through holistic engineering - integrating power systems, HVAC planning inputs, and electrical infrastructure within a single design-to-delivery ecosystem. We eliminate the fragmentation typically seen when multiple vendors handle different parts of the project, which often leads to mismatches and delays.

WHY GMMCO STANDS APART

Gmmco, in partnership with Caterpillar for over three decades, has been at the forefront of powering critical infrastructure in India - from airports and hospitals to high-rise commercial towers and industrial clusters. In the data centre segment, our differentiator lies in our end-to-end capability.

Here's how we deliver value:

- **Design & Engineering:** Our involvement begins at the pre-engineering phase, with in-house specialists working closely with customers to understand site constraints, load profiles, and future scalability needs.
- **Procurement & Execution:** We manage timelines rigorously, aligning procurement with execution to ensure no disconnect between planning and on-site readiness.
- **Testing & Commissioning:** Our teams carry out factory acceptance tests (FAT), on-site commissioning, load tests, and integration with customer networks.
- **After-Sales Support:** With one of the largest field service networks in India, we ensure consistent uptime through preventive maintenance contracts, rapid response to breakdowns, and inventory support for spare parts.

We also ensure regulatory compliance, managing statutory approvals to remove



bottlenecks that can derail mission-critical timelines.

LOCAL ADVANTAGE, GLOBAL STANDARDS

What makes Gmmco's approach truly stand out is our ability to deliver international-grade solutions tailored to Indian operating conditions. Our generators are built locally and engineered to operate in high ambient temperatures, dust-prone environments, and load fluctuations typical of Tier 1 and Tier 2 cities in India.

This is increasingly relevant as the data centre market spreads beyond Mumbai and Chennai into Pune, Hyderabad, Bengaluru, and emerging edge locations. Enterprises want partners who understand ground realities — and that's where our execution strength becomes critical.

A FUTURE BUILT ON INTEGRATION

The future of data centres lies in integration over aggregation. While dividing project responsibilities between vendors may seem logical on paper, it often leads to accountability gaps and project delays.

At Gmmco, we offer single-point ownership. We supply the gensets, handle switchgear installation, manage UPS coordination, and supervise power and control cabling — all under one roof. This ensures project synchronization, faster delivery, and lower total cost of ownership.

MORE THAN AN EQUIPMENT BUSINESS

India's digital ambitions hinge on its ability to create infrastructure that can scale reliably and quickly. At Gmmco, we see this as more than a supply chain challenge - it's a national responsibility.

Whether it's enabling hyperscale cloud providers or helping banks and manufacturers build their own digital cores, we approach every project with one objective: ensuring uptime where it matters most.

Because in the end, we're not just powering data centres — we're powering the digital promise of a billion people. ■