



الصناعات الدقيقة
PRECISION INDUSTRIES LLC
Power Generators

Powering Critical Operations Without Compromise

Issue #2 | 06 April, 2026



A major UAE operator required a 3.3 kV diesel generator system capable of supporting critical loads, performing black start operations, and meeting strict safety standards.

To meet these demands, a fully engineered DG package was developed, integrating advanced control, protection, and starting systems within a heavy-duty enclosure designed for harsh desert and hazardous conditions.

At the core of the solution:

- Mitsubishi 16-cylinder engine coupled with a customised IP55 Leroy Somer alternator
- Remote, roof-mounted cooling system designed for high ambient temperatures and long-term reliability
- High impedance Neutral Grounding Resistor (NGR) for enhanced protection and safety

A key achievement was the design of a fully welded, in-house engineered enclosure, integrating all critical systems including fire suppression, dual starting systems, and safety components without compromising accessibility or performance.

Reliability isn't optional, it's critical.

Built for Demanding Environments:
Major UAE operator, 3.3 kV diesel generator, black start capability, harsh desert conditions.

The system was supported by:

- Advanced control using DEIF controller
- Siemens protection relays for precise fault detection
- SIL 3 PLCs ensuring high-integrity safety and shutdown logic

To guarantee reliability, the generator features a dual starting system:

- Primary Ni-Cd batteries
- Secondary pneumatic system
- This configuration ensures 20+ start attempts, supporting full facility black start scenarios.

The result:

- A high-performance, fully integrated DG solution delivering continuous operation, enhanced safety, and long-term reliability setting a benchmark for complex power systems in the oil & gas sector.



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Power You Can Rely On Every Day



Power doesn't just keep systems running. It keeps people moving, businesses growing, and critical moments uninterrupted.

As we step into 2026, our focus goes beyond delivering generators. It's about ensuring confidence, reliability, and peace of mind across every project we support.

From data centers that can't afford a second of downtime to communities that rely on seamless power transitions, our teams are on the ground making sure everything works exactly when it's needed most.

Because in our world, power isn't just equipment it's trust, built every day through performance.

Where reliability matters most:

- Utilities: Ensuring full compliance with strict utility standards through disciplined maintenance.
- Data Centers: Expert maintenance for high-redundancy power systems, because zero downtime is the only acceptable standard.

Keeping Power Ready, Always

Reliability isn't built overnight it's maintained, tested, and proven every single day.

Through our Annual Maintenance Contracts (AMC), we work hand in hand with leading organizations across the UAE to ensure their power systems are always ready, no matter the demand.

Across communities and facilities:

Facility Management:

- Ensuring seamless power transitions across large generator fleets.
- Providing efficient, reliable, and sustainable maintenance in complex MEP environments



Building Operational Autonomy Through Training

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High-End Technical Training

We empower our clients' O&M teams to move beyond basic monitoring toward full operational autonomy.

Our training helps transition staff from “observers” to “experts” capable of independently managing complex power systems.

What we focus on:

- Turning complex operations like synchronizing and load sharing into everyday confidence
- Equipping teams to read, understand, and act on system diagnostics before issues escalate
- Preparing engineers to operate in critical environments like data centers and utilities
- Extending equipment life through smarter preventive practices

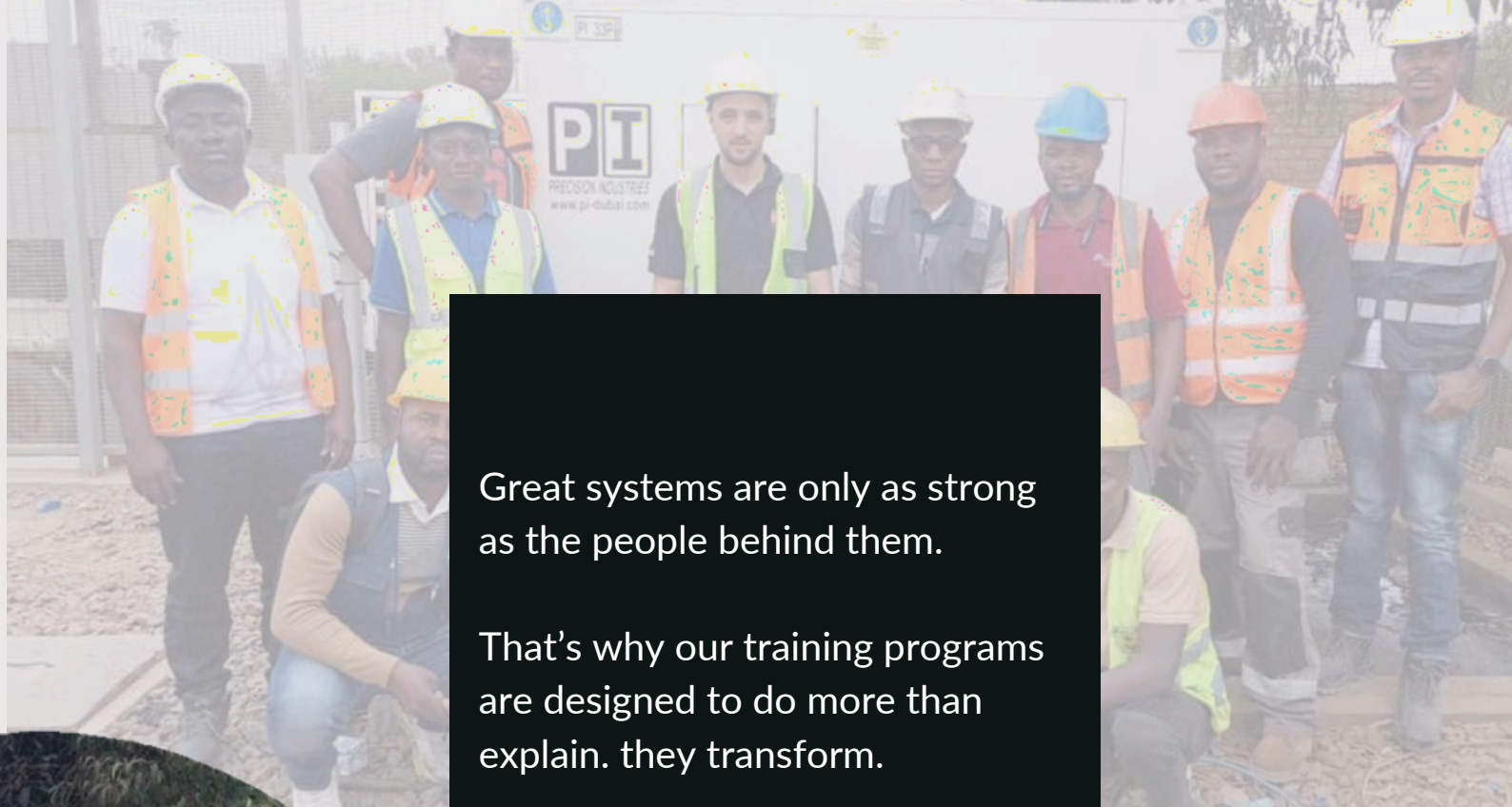
Training Phases :

Phase	Experience	Impact
Theory	Understanding how power systems truly work	Strong technical foundation
Hands-on	Real-time fault simulations on-site	Faster, confident decision making or Faster, more confident decisions
Emergency	Blackout and load-drop scenarios	Control under pressure



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From Monitoring to Mastery



Great systems are only as strong as the people behind them.

That's why our training programs are designed to do more than explain. they transform.

By the end of the program, field teams master the equipment, confidently operating, managing, and maintaining systems on site.





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Powering Connectivity, Empowering People

Behind every reliable telecom network is a team of dedicated experts ensuring that critical infrastructure operates smoothly. Across multiple countries in GCC and Africa, our training experts are working closely with customers to share knowledge and build technical capability in operating and maintaining the generators that power Base Transceiver Station (BTS) sites.

These generators play a vital role in keeping telecom networks running, especially in locations where stable grid power is not always available. Through structured training programs, our team equips customer engineers and technicians with the skills needed to operate, maintain, and troubleshoot these essential power systems.

Despite these obstacles, our experts remain committed to ensuring that knowledge reaches the people who keep networks operational every day.



What makes this effort truly remarkable is the environment in which our teams operate.

Delivering training across diverse regions means adapting to different languages, remote site conditions, logistical challenges, and demanding travel schedules.



Enabling Connectivity Through Field Expertise

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Whether conducting hands-on sessions at telecom sites, guiding technicians through maintenance procedures, or helping teams understand generator diagnostics, their mission remains the same: **“empower customers to keep their networks powered and connected”**

Our Experts More Than Trainers; they are enablers of connectivity. Their dedication, resilience, and technical expertise make them the true heroes behind the scenes, helping ensure that millions of people stay connected across the continents.

What we focus on

- Generator overview and key functions
- Mechanical & electrical components
- Cooling, lubrication, and operation Safety essentials
- Common faults and troubleshooting

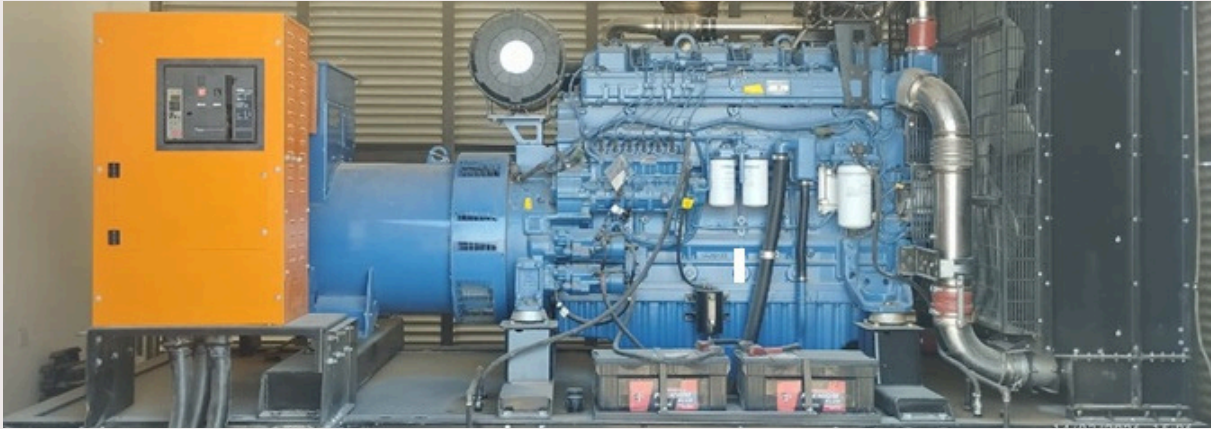
How we deliver it

- Hands-on, on-site training at BTS locations
- Live demonstrations and step-by-step guidance
- Interactive problem-solving with real-world scenarios
- Tailored approach for different regions, languages, and skill levels



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Yuchai Engine Excellence Proven Reliability Across Demanding Industrial Applications



Powering Real Operations

Every project tells a story and every story, starts with a need for reliable power.

Supply of open-type diesel generating sets of 1000 KVA and 1500 KVA powered with Yuchai Engine to a poultry project in the UAE reflects our commitment to delivering solutions that keep operations running without interruption, even in demanding production environments.

Where the Industry is Heading

The power industry is evolving, and staying ahead means understanding what's coming next.

Smarter Systems: Real-time monitoring is replacing manual checks, allowing teams to predict issues before they happen

Stronger Standards: Efficiency and emissions are no longer optional. They're part of doing business.

Zero Surprises: Predictive maintenance is becoming the new standard for critical operations





Technical Tips from the Field

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Even the most advanced systems rely on the basics being done right:

- Avoid Wet Stacking

Running generators below 30% load can lead to fuel buildup and reduced efficiency.
Tip: Perform an annual load bank test at 75%+ capacity to keep the engine clean.

- Protect Your Fuel Quality

In high-humidity environments like the UAE, diesel is prone to microbial growth.

Tip: Use fuel polishing and biocide treatments to prevent clogged injectors and power loss.

- Don't Overlook Batteries

Battery issues are one of the most common causes of generator failure.

Tip: Use smart chargers with temperature compensation to protect batteries from extreme heat.

- Prioritize Cooling Efficiency

Dust and salt buildup can block radiators and cause overheating.

Tip: Maintain a strict external core cleaning schedule, especially during peak summer.



Built on Trust. Proven in Every Detail

As expectations grow and environments become more demanding, one thing remains constant:
our commitment to delivering power solutions that perform every time they're needed.

Let's Power Your Next Critical Project.
Get in touch with our experts:
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Where POWER Meets PRECISION