Power – Wherever Performance Demands It

Electric Power Solutions



Tomorrow starts today



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Reliable Electric Power Solutions With Enerflex

A changing world has changing energy needs. And for over four decades, Enerflex has delivered reliable and efficient power solutions to client partners around the globe. Our solutions produce cleaner power where and when it's needed – even in the most challenging and remote places.

From front-end design through to commissioning and long-term service, our expertise spans the full project lifecycle. Modular by design and scalable by nature, everything we build is built to last.

Simply put: it doesn't matter where you are. We're ready to provide clean power you can count on.

+90%

Overall Plant Efficiencies Achieved With Cogeneration or CHP Systems

500 kW – 100 MW Operating Range



Years' Experience

24/7

Support, Anywhere You Need It

The technical excellence of our team of experts has been refined by over 45 years of innovation. Powered by grit and determination, they confidently guide you through the full project cycle – ready to support you, no matter how unique your goals are.

Scalability

Your energy needs are always evolving. Our scalable power solutions evolve with you, seamlessly adapting to your changing operational demands.

Adaptability

Whether you're powering a remote industrial site or a compact urban utility facility, our modular designs adapt effortlessly to your precise situation.

Cost-Effectiveness

Simplified installation and support for peak shaving reduces grid reliance and energy costs. Systems adapt quickly to site needs while enabling asset redeployment.

Configurability

Our rich-burn/lean-burn configurations deliver high efficiency, reduced emissions, and thermal energy recovery for sustainable operations.

Integrated Approach

The same team that designs your solution also maintains it, proactively identifying challenges and optimizing for lower cost and maximum reliability.

Power Generation Solutions For Any Environment

Every environment is different – from a remote operating facility to a crowded municipality or urban area. We have a proven history of designing innovative custom solutions that are both OEM agnostic and seamlessly integrate no matter the location or operational challenge.



Modular Packages

Our modular electric power solutions are built to adapt and perform, able to function in any environment and incorporate complex fuel sources. With a wide range of configurations, our designs provide versatile implementation options to encompass varying power needs, engine types, fuel sources, and more.

Power Output	Engine Brands	Engine Type	Fuel Options	Package Type	Voltage	Frequency
Single Genset: 500 kW to 4,480 kW Multi Genset: 5MW to 20+ MW	Waukesha Jenbacher CAT OEM Neutral	Rich-Burn Lean-Burn	Natural Gas Flare Gas Biogas Landfill Gas Hydrogen Waste Gas Stranded Gas	Open Skid Enclosed Package Modular Engine Building	Low Voltage Medium Voltage	50 Hz to 60 Hz

Industry–Leading Engine Partners

Enerflex is proud to deploy engines manufactured by three trusted global leaders: Jenbacher, Waukesha, and CAT.

Brand	Types	Burn Type	Power Output	Strengths	Suitability
Jenbacher	Type 2 Type 3 Type 4 Type 6	Lean-Burn	335 kW to 4,481 kW	Jenbacher's lean-burn engines: – Offer a cooler, more gradual burn – Deliver higher fuel and electrical efficiency – Provide better thermal performance – Are better suited for low-BTU fuel sources (e.g., biogas, landfill gas).	Combined heat and power applications with lower lifecycle costs.
Waukesha	P9394 P7044 P3524 P48SE	Rich-Burn (optimized for emissions control and fuel flexibility)	Up to 1,770 kW per unit	 Waukesha's rich-burn engines: Offer hotter, more complete combustion, resulting in lower NOx output than lean-burn engines¹ Require an easier cleaning and maintenance cycle, greater fuel flexibility Require a lower initial deployment cost 	Robust performance in tough site conditions and utilizing fuel with less requirement for gas treatment.
CAT	G3512 G3516 G3516 G3520 CG170-20 CG260-16	Lean-Burn	525 kW to 4,050 kW	CAT's lean-burn engines: - Deliver high efficiency, low emissions, and strong performance across various fuel types - Offer leading durability in continuous and heavy-duty applications, with advanced controls for reliable load management.	Well-suited for continuous power, CHP, and large-scale industrial or utility applications using a range of gas fuels.

¹ Without post-combustion treatment

Site-specific fuel profiles or other client partner requirements may create the need for a bespoke solution utilizing alternative brands or machinery.

Rich-Burn vs. Lean-Burn

Rich-burn and lean-burn engines offer contrasting strengths, and the choice of which to use will depend heavily on your needs and available resources.



Rich-burn Engines



Lean-burn Engines

Fuel Options

Fuel flexibility is built into every Enerflex system, harnessing fuels available on-site with optimal efficiency. This flexibility reduces emissions and flaring and also unlocks cost savings and sustainability benefits.



Туре	Description	Suitability	
Open Skid	Engine and generator mounted on a base frame, with no enclosure.	Indoor/outdoor installations. Easy to access and maintain.	
Enclosed Building	Engine and generator housed in a weather/sound-proofed container.	Outdoor installations, urban sites, or noise-sensitive areas. Provides plug-and-play flexibility for temporary and outdoor use.	
Modular Engine Building	Pre-fabricated engine room modules with integrated auxiliaries.	Permanent or semi-permanent installations with multiple engines. Simplified on-site construction means faster deployment and lower on-site labour costs.	

Why We Take an Integrated Approach

The key to our success is a fully integrated approach to delivering solutions. This means the system we design for you is completely developed under one roof, by one team, with one goal: **keeping your operation running at its best**.

This starts from minute one: engineering and pre-assembly efforts that save money, time, and risk during installation. Customization also allows us to meet strict specification requirements that aren't achievable with OEM standard packages. Then, once you're up and running, we provide seamless coordination, faster response times, and deep technical expertise at every touchpoint.

When you choose Enerflex, you're not just getting equipment. You're gaining a partner that's invested in your success from start to finish. The resulting solution is 100% tailored to your site, your fuel, and your operational goals – and because we own the entire process, we anticipate challenges before they happen, respond quickly when they do, and continuously optimize for performance, emissions, and uptime.

Our Solutions In Action



Backup Power Generation

Sector: Energy Location: USA

A leading North American midstream operator required backup power generation at a pair of remote facilities in northern USA to ensure continuous operations in the event of a main power grid failure. We devised a custom solution delivered in a pre-fabricated building, based around three Waukesha P9394 GSI S5 and two Waukesha P48SE modules. The solutions were successfully installed and integrated on site, providing a total of 4,490 kWe at the first location and 2,620 kWe at the second.

Flare Gas to Power

Sector: Tech Location: USA

One of our client partners operates data centers for AI computation with high energy demands. We helped them optimize their operations by eliminating flaring and capturing gas to generate electricity instead. We installed five Waukesha P9394 open skid modules across three separate sites throughout the Permian, converting previously wasted gas into a valuable energy resource and minimizing emissions at the same time. In total, the combined solution generates 8.5 MW of power.

Biogas Capture

Sector: Civic Infrastructure Location: Canada

A wastewater treatment plant needed a solution to harness biogas produced during regular operations. We modified the existing system to clean the biogas of excess water and H_2S for safe energy conversion. To achieve this, we designed and installed a turnkey cogeneration plant based around three Jenbacher J620 engines. The modified system now captures and cleans biogas, converting methane into power and thermal energy and turning a waste stream into an energy source.

Microgrid Solutions

Sector: Energy Location: Canada

A Canadian power generation company in a remote location needed to ensure continuous service for customers when their primary hydroelectric generation facility could not meet demand. Enerflex devised a first-of-its-kind² custom microgrid solution, replacing existing assets with two modular Jenbacher JMS 624 HO1 4,160V generators, producing a total of 8.8 MW. The custom solution was also designed to reliably perform in extreme winter temperatures, with louver baffle blockers and a pre-heater on ventilation ducts.

² In Canada

Frequently Asked Questions

1. What are the use cases for on-site power generation?

Our energy solutions can be deployed on sites with no connection to a central power grid as a standby backup firm power source to reduce the cost of electricity usage, to lower emissions to achieve compliance, or to integrate with combined heat and power needs.

2. What are the benefits of installing on-site power generation?

Installing on-site power generation offers greater energy independence, improved reliability, operational resilience, and potential cost savings. It reduces reliance on the grid, helps avoid peak demand charges, and ensures continuous operation in remote or outage-prone areas.

3. What type of fuel can I use to power my generators?

Our energy solutions offer multiple configurations for fuel sources, including natural gas, flare gas, biogas, landfill gas, hydrogen, waste gas, and stranded gas.

4. What are the lowest emissions that can be achieved?

Our electric power systems can achieve ultra-low emissions (primarily NOx and CO_2) using rich-burn engine technology, advanced controls, and post-combustion emissions reduction equipment.

5. I've been told my fuel isn't good enough to generate power – what can I do?

Our systems are designed to process and clean a wide range of fuel types, including biogas, landfill gas, and flare gas. We can engineer a custom solution to ensure safe, efficient power generation, no matter your fuel type.

6. I need a bridging power solution for a few years until utility connection is available. Is there an option other than renting equipment?

Yes. We offer modular, scalable systems that can be deployed as a bridging solution and transitioned later – including fit-for-purpose installations that can be integrated with the grid at a later time.

7. Can Enerflex support long-term operations and maintenance for my power generation facility?

Enerflex provides full lifecycle support, including long-term operations and maintenance services – ensuring your power system runs reliably, efficiently, and safely for years to come.

8. What information do I need to size the right solution for my operation?

We'll require details like your expected load profile (kW/MW), operating hours, fuel availability and type, site location, and environmental conditions. We'll also consider whether you need prime, standby, or peak shaving power.

9. How much electricity can I make from a fuel source?

It depends heavily on the fuel's energy content, flow rate, and consistency. We'll analyze your specific fuel to determine its suitability and potential output.

10. What is the required fuel supply pressure to power the generator?

Fuel pressure requirements vary by engine type and configuration, but most systems require a consistent supply pressure between 5 psig and 75 psig. If needed, we can design and integrate gas treatment or boosting systems to ensure reliable engine performance.

11. Do you provide capex free options?

Yes, Enerflex offers flexible commercial models, including capex-free options such as power purchase agreements (PPAs) and rental solutions. These approaches allow you to access reliable, on-site power without upfront capital investment.

12. Does Enerflex provide other solutions that are complementary to my power generation system?

Yes, Enerflex is a premier integrated global provider of energy infrastructure and energy transition solutions, deploying natural gas, low-carbon, and treated water solutions.

Discover all of what we have to offer at enerflex.com.



Reliable Electric Power Generation With Enerflex

Wherever energy is needed, Enerflex delivers. Our electric power solutions are proven across industries in the harshest environments. We are trusted by our client partners to deliver reliable, clean power and keep operations running strong.

Our team is waiting to work with you to design a custom solution that drives efficiency at every level. Because we believe when it comes to electric power – tomorrow starts today.

Enerflex

Visit us at **enerflex.com** to learn more about how we are helping our client partners with their electric power needs, or email **info@enerflex.com**.