



MRK-POWER

Solar-First Power
For Natural Gas Infrastructure



Power Systems

Uninterruptable off-grid power systems

Forefront Energy's cutting-edge MRK Power Units harness solar energy to directly meet your site's power requirements. These units charge a modular battery bank, ensuring a 3-day autonomy. The backup generator adds redundancy for extended periods without solar power. The power control unit efficiently manages electricity for electric actuation, chemical pumps, SCADA systems, and other auxiliary power needs.

Reliability

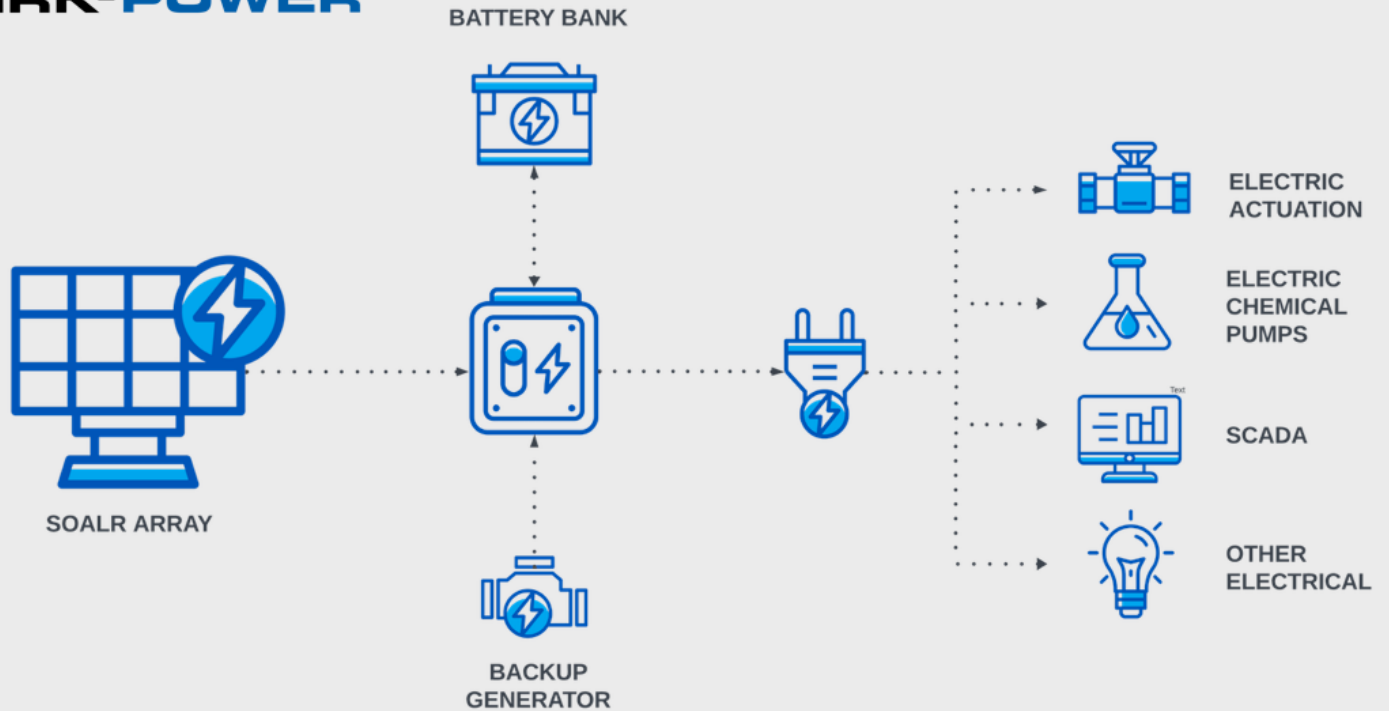


Sustainability



Easy Logistics





Seamless Operations, Uninterrupted Flow

Eliminates methane

Our power systems eliminate methane by powering electric, hydraulic actuators, and air-pneumatics, replacing venting pneumatics entirely.

Produces little to no CO₂

The MRK-Power units produce little CO₂ with solar-first designs, battery storage, and minimal reliance on fuel-based backup generators.

Reduce operating costs

Our systems reduce operating costs by cutting fuel consumption, lowering maintenance needs, and maximizing energy efficiency.

New builds and retrofits

Our power units are flexible, with tailored solutions for seamless integration into new builds or retrofits, requiring minimal modifications.

Pre-commissioned & turnkey

We pre-commission MRK Power Units before shipping, ensuring streamlined, turnkey deployment upon arrival at your site.

Reliable in any environment

Our power systems ensure reliability in any environment, from extreme cold to remote locations, with solar and robust battery tech.



MRK-POWER Spec Sheet

MRK1-100

MRK2-250

MRK3-500

General

Engine Type	Solar-Only	Solar-first / tri-fuel	Solar-first / tri-fuel
Number of Wells	1-3 Wells	3-5 Wells	6-15 Wells

Electrical System

Total Power	2.4kW	6kW	12kW
Nominal Power Output	~100W (Continuous)	~250W (Continuous)	~500W (Continuous)
Solar Panel Count	4 panels	10 panels	16-24 panels
Solar Array	2.2 kW	5.4 kW	13 kW
Backup Generator	NA	7000W	7000W
Battery Capacity	10 kWh	15 kWh	30kWh, expandable
Voltage Range	12V-24V-48V DC or 120/240V AC	12V-24V-48V DC or 120/240V AC	12V-24V-48V DC or 120/240V AC
Solar Autonomy	96 hours	96 hours	96 hours

Backup Fuel System

Backup Generator Fuel Type	No Backup Generator	Gasoline, Propane, or Wellhead Gas	Gasoline, Propane, or Wellhead Gas
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Real-Time Monitoring

Connectivity Options	Ethernet, Modbus RTU, TCP/IP	Ethernet, Modbus RTU, TCP/IP	Ethernet, Modbus RTU, TCP/IP
Remote Access	API and real-time data logging	API and real-time data logging	API and real-time data logging

Design and Build

Enclosure	Theft-resistant, insulated aluminum cabinet	Theft-resistant, insulated aluminum cabinet	Theft-resistant, insulated aluminum cabinet
Dimensions	4' x 8'	4' x 8'	4' x 8'
Operating Temperature Range	-40°C to 50°C	-40°C to 50°C	-40°C to 50°C

Sustainability

Methane Reduction	Up to 99.5%	Up to 99.5%	Up to 99.5%
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Power-as-a-Service PaaS

Imagine having state-of-the-art, off-grid power and control systems without the need for large upfront investments or the worry of maintenance. That's exactly what Forefront Energy's Power-as-a-Service (PaaS) delivers.

No Large Capital Expenditure

Say goodbye to hefty upfront costs. With PaaS, you get the latest power and control technology for a predictable monthly fee, freeing up your capital for other priorities.

Forefront Takes Responsibility

From installation to maintenance, the entire system is our responsibility. If something goes wrong, it's our problem—not yours. Our solutions come with the highest level of guarantees and warranties, giving you peace of mind.

Proactive Monitoring, Not Reactive Fixes

Unlike mechanical solutions that break down unexpectedly, our technology is designed for gradual, predictable maintenance. We detect issues months in advance and resolve them before they impact operations.

Forefront Energy's Power-as-a-Service (PaaS) offers a comprehensive, turnkey solution tailored to your needs. We manage every aspect—from design and installation to operation and maintenance—ensuring a seamless experience.

With our innovative and sustainable technology, you'll enjoy best-in-class performance and reliability while benefiting from predictable costs through a fixed monthly fee.

The PaaS model is particularly advantageous for retrofitting existing sites, enabling rapid compliance with methane reduction regulations without requiring significant upfront investments.



OUR PROMISE TO YOU:

Uninterrupted, Sustainable Power-Guaranteed.

- Guaranteed 99% Uptime
- Beyond Compliance Assurance
- Sustainable Power, Proven Savings

We promise what others won't, because we deliver what others can't.

ESG & CARBON CREDIT DATA

Real-Time remote monitoring & reporting

Our proactive remote monitoring delivers real-time oversight, avoiding downtime by preventing issues before they arise with remote login and data logging.



ENGINEERED TOUGH

Rugged Reliability

Our technology, like our company, hails from the far north, designed to perform flawlessly even on the shortest, coldest days of the year.



FOREFRONT
E N E R G Y

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