



PRESS RELEASE

INNIO Waukesha brings electrical power to remote stranded gas locations, powers innovative Crusoe Digital Flare Mitigation® deployments

- *INNIO Waukesha Gas Engines are at the heart of a growing ESG and digital transformation process in the energy industry*
- *Waukesha's engines power remote modular data centers using captured flare gas and reducing methane emissions*
- *Crusoe Energy Systems utilizes Waukesha engine generators to provide innovative Digital Flare Mitigation® solutions for the energy industry*

WAUKESHA, Wisc. — September 8, 2020 – INNIO* Waukesha* Gas Engines' platform of rich-burn, natural gas engines are powering a new technology that is spreading rapidly in the American energy industry: Digital Flare Mitigation® (DFM). Developed by Denver-Based Crusoe Energy Systems, DFM systems convert otherwise wasted or flared natural gas into electrical power through Waukesha engine packages. The electrical power is then consumed in mobile, modular data centers deployed directly to the well site. In this way, flared natural gas is converted into a beneficial use through energy-intensive computing such as blockchain processing, machine learning model training, protein folding simulations for COVID-19 therapy discovery and other cutting-edge applications.

Crusoe has deployed more than 30 DFM modules throughout North Dakota, Montana, Wyoming and Colorado, and Waukesha engine generators power a large portion of Crusoe's fleet today. Cully Cavness, the president and co-founder of Crusoe, said "many of the flaring situations we encounter require solutions at a scale of hundreds of thousands to millions of cubic feet of gas per day. Our technical and engineering teams worked closely with INNIO Waukesha to identify, specify and configure a large-capacity rich burn engine capable of managing the rigors, variability and scale of flaring in the modern energy industry. Today INNIO Waukesha is an integral part in our mission to eliminate natural gas flaring and reduce emissions through large-scale DFM projects."

Waukesha engine generators are purpose-built for a variety of continuous and intermittent power generation applications. This family of engines is known for proven reliability, fuel flexibility, and longer service intervals to meet the energy industry's toughest challenges.

INNIO Waukesha is on-pace to deploy about 40 megawatts of generation capacity in cooperation with Crusoe by early 2021, primarily in the Bakken oilfields of North Dakota and Montana. Waukesha engine generator units reduce natural gas flaring while powering portable



data center systems, with each unit capable of reducing thousands of tons of CO₂-equivalent greenhouse gas emissions annually in the form of avoided methane emissions from uncombusted flare gas. Additionally, each unit is connected with the INNIO Waukesha myPlant* Asset Performance Management System for secure remote monitoring. Crusoe's team has also built custom control and monitoring software that integrates Waukesha system data with the operation of Crusoe's modular data centers, enabling significant automation and efficiency benefits.

Cavness continued, "Crusoe is a technology-forward operator in the energy industry, so access to reliable and abundant data is critical for our purposes. INNIO Waukesha's data and control systems have been very helpful to our team, and we've built a significant amount of custom software around INNIO Waukesha's platform to further integrate our networking and data center systems with the engine packages. As a result, we are able to significantly enhance the performance of our integrated DFM operations."

The Waukesha VHP9504GSI Series Five gensets are built with the same robustness as the compression engines and use a three-way catalyst for low emissions. The VHP9504GSI gensets are also capable of running on well-head gas directly, without the need for complex treatment

For more than three decades, Waukesha Engine's VGF* and VHP* series engines have delivered consistent critical power from a proven and reliable platform. Ideally suited for a variety of mobile and stationary applications, VGF and VHP high-horsepower engines feature advanced controls and fuel flexibility. This enables users like Crusoe to maximize performance and durability while serving either prime power or backup power generation applications

To learn more about Crusoe's Digital Flare Mitigation® systems and how Crusoe and INNIO Waukesha technology convert stranded gas into electricity while lowering emissions, [register for the Digital Flare Mitigation Technology® Webinar](#) on September 22, 2020 or visit us at innio.com/en/products/waukesha or crusoeenergy.com.

*Indicates a trademark.

About INNIO Waukesha

INNIO Waukesha's commitment to the industry spans more than 100 years. The business works every day to build on this foundation by evolving engine technologies, creating new service innovations and increasing the impact for their distributors and customers worldwide.

Waukesha's gas engines are built to work tougher, longer and smarter for the oil and gas industry's most challenging and remote environments. In addition to the Waukesha, Wisconsin, operations, INNIO's flagship Waukesha gas engines are manufactured and shipped from Welland, Ontario, Canada.



About INNIO

INNIO is a leading solutions provider of gas engines, power equipment, a digital platform and related services for power generation and gas compression at or near the point of use. With our Jenbacher* and Waukesha* product brands, INNIO pushes beyond the possible and looks boldly toward tomorrow. Our diverse portfolio of reliable, economical and sustainable industrial gas engines generates 200 kW to 10 MW of power for numerous industries globally. We can provide life cycle support to the more than 48,000 delivered gas engines worldwide. And, backed by our service network in more than 100 countries, INNIO connects with you locally for rapid response to your service needs. Headquartered in Jenbach, Austria, the business also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, US. For more information, visit the company's website at www.innio.com. Follow INNIO on [Twitter](#) and [LinkedIn](#).

About Crusoe Energy Systems Inc.

Crusoe Energy Systems provides innovative solutions for the energy industry. By converting natural gas to energy-intensive computing, Crusoe's Digital Flare Mitigation® service delivers an environmentally sound way to create a beneficial use for otherwise wasted natural gas. Crusoe has deployed flare mitigation projects in North Dakota, Montana, Wyoming and Colorado. Systems are scalable up to millions of cubic feet per day and can be deployed anywhere in the United States or Canada. Follow Crusoe on Twitter and LinkedIn.

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