

INNOMOTICS

Global thought leader in eLNG.

**Innovative electric drive systems
for pioneering all-electric LNG production.**



Overcoming today's LNG challenges.

Efficiency level

up to **95%**

Why the industry needs a new approach.

The LNG industry is experiencing a fundamental shift. Operators must balance the demand for sustainable production with the need to maintain operational excellence and profitability. Traditional gas turbine-driven LNG plants are no longer sufficient, as they struggle to deliver the efficiency and reliability required in today's market.

Regulatory changes drive transformation.

Global and regional regulatory bodies have introduced stricter emissions directives. These regulations require immediate action to reduce greenhouse gas output and improve process efficiency, pushing operators to seek new solutions that can deliver compliance without compromising productivity.

Operational limitations of legacy systems.

Conventional turbines typically achieve only 25 – 30% efficiency and require annual maintenance shutdowns. This results in costly downtime and higher operational expenses, making it difficult for operators to maintain profitability and meet sustainability targets. Frequent shutdowns also impact production schedules and reduce plant availability.

The cost of inefficiency.

High fuel consumption and ongoing maintenance needs contribute to rising operational expenses (OPEX). For many operators, these costs represent a significant barrier to long-term growth and sustainability. The need for a more efficient, reliable, and environmentally responsible approach to LNG production has never been greater.

Transforming LNG with all-electric solutions.

Electrification as the key to progress.

At Innomatics, we believe that electrification is the foundation for a sustainable LNG future. Our eLNG solutions are designed to address the industry's toughest challenges by replacing conventional turbines with advanced electric drive systems and leveraging digital innovation.

Doubling efficiency for lasting savings.

By integrating high-efficiency electric motors and variable speed drives, operators can achieve >99% efficiency for motors and >98% for drives. This significant improvement over traditional systems leads to substantial operational savings, lower energy consumption, and reduced greenhouse gas emissions.

Reliability redefined.

Electric drive systems are engineered for long-term reliability, enabling up to five years of continuous operation without scheduled shutdowns. With fewer moving parts and advanced health analytics from our Inspire IQ digital platform, maintenance needs are minimized and uptime is maximized.

Emission avoidance through renewable integration.

When powered by renewable energy, eLNG solutions enable complete avoidance of direct CO₂ emissions. Switching from gas turbines to electric drives can reduce annual emissions by approximately 500,000 tons, helping operators meet sustainability targets and regulatory requirements.

Maximizing plant availability.

Our technology delivers availability rates of 99.9%, supported by redundant system designs and ultra-fast bypass switches. This ensures stable production schedules and maximizes profitability, even in demanding operational environments.

Lower lifecycle costs for long-term value.

Electric drive systems offer clear long-term advantages for sustainable LNG production. Reduced maintenance, higher efficiency, and extended operational cycles translate into lower lifecycle costs, a compelling business case, and a forward-looking solution for the LNG industry.



Electrifying every stage of LNG production.



Comprehensive coverage across the LNG value chain.

Innomotics electric drive systems are engineered to power every phase of LNG production, from initial compression to storage and final gas treatment. Our integrated approach ensures optimal performance and measurable benefits throughout the process chain.



Booster compression for efficient gas transport.

Booster centrifugal compressors equipped with electric drives provide precise inlet pressure control and efficient gas transport. This enables operators to optimize flow rates and maintain consistent production, even as process demands fluctuate.



Reliable refrigeration compression.

Refrigeration compression is at the heart of LNG production. Our GL150 and Perfect Harmony GH150 drives deliver robust, reliable performance across the demanding 30 – 100 MW power range, ensuring stable cooling and efficient liquefaction.



Optimized storage systems.

Electric drive technology enhances LNG storage processes by enabling precise control and reducing energy losses. This leads to more efficient operations and improved product quality throughout the storage phase.



Boil-off gas management for minimal losses.

Advanced reliquefaction compressors minimize vapor losses and maximize product recovery. Our solutions help operators manage boil-off gas (BOG) efficiently, reducing emissions and improving overall process sustainability.



End flash gas treatment for complete utilization.

Electric drives enable complete utilization of all gas streams during end flash gas treatment. This reduces CO₂ emissions while maintaining process efficiency, supporting operators' environmental and operational goals.



Bridging the energy transition.

eLNG serves as a critical bridge technology, accelerating the energy transition by electrifying the gas value chain. Our systems are fully compatible with renewable energy sources, including wind, solar, and hydropower, helping operators move toward net-zero emissions.

Product portfolio – motors and drive systems.

Proven technology for demanding applications.

High voltage high power (HV HP) and specialized (HV HS) motors

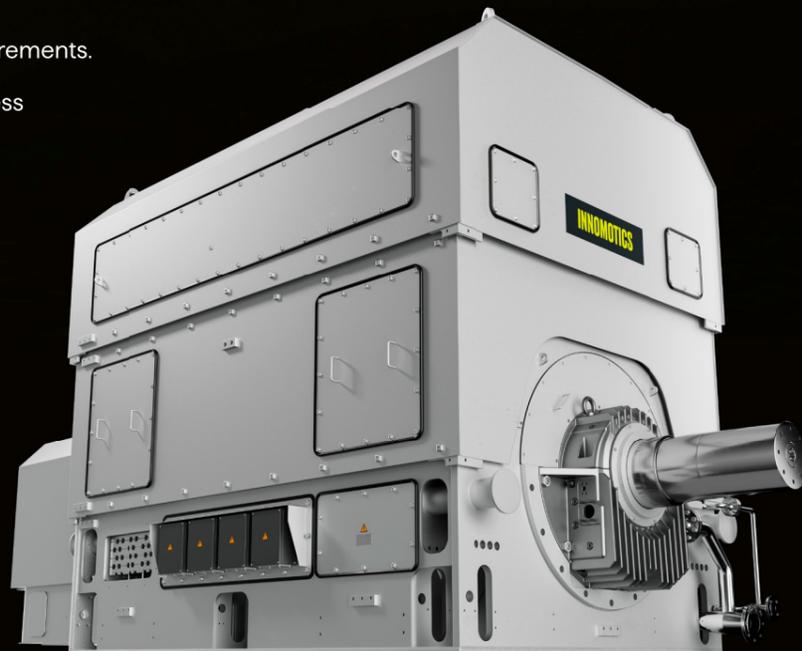
- The flexible high voltage motor platform for tailor-made solutions for a power range of 1.8 to 105 MW
- Efficiency rates close to 99%
- Market leading reliability and life-time

Flexible drive solutions for ultimate versatility

- GL150: Ideal for refrigeration compressor applications (30 – 100 MW), featuring standardized, type-tested LCI drive technology.
- Perfect Harmony GH150: Developed for eLNG applications, with modular multilevel converter (M2C) topology for motor-friendly operation.

Variable speed drives (VSDs)

- Flexible adaptation to operational requirements.
- Precise speed control for optimal process management.



Large electric drive systems

- Maintenance-free operation for up to five years.
- Maximum reliability and availability.
- Integrated health analytics via Inspire IQ platform.

Technical excellence

- LCI drives deliver higher reliability and availability than VSI systems, especially in high-power settings.
- Proven reliability with 99.9% system availability.
- Total system efficiency ratings up to 95%.

Services and digital solutions.



End-to-end project development and optimization.

We partner with you from initial planning to commissioning and beyond, designing tailored solutions that integrate seamlessly with your facility and existing infrastructure. Our experts combine LNG and power generation know-how to deliver projects on time and within budget. After delivery, we continue to optimize your system's performance and help you meet evolving operational and sustainability goals. With our global network of service centers and specialists, you benefit from rapid response and reliable support wherever you operate.

Advanced digital monitoring and analytics.

Our Inspire IQ digital platform empowers you with real-time access to operational data and advanced health analytics. Predictive maintenance tools identify potential issues before they impact performance, reducing unplanned downtime and optimizing maintenance schedules. With remote monitoring capabilities, you gain continuous insight into system health, enabling smarter decision-making and long-term reliability.

Maintenance and operational enablement.

We deliver comprehensive maintenance and targeted training to keep your systems running efficiently and reliably. Our support includes regular inspections, condition-based service, and rapid troubleshooting – whether on-site or remote. Through focused training, we equip your teams to maximize system performance and safety, ensuring you get the most from your Innomotics solutions.

Demonstrating reliability and impact worldwide.



Hammerfest, Norway – pioneering eLNG success.

Hammerfest is home to the world's first all-electric LNG plant, operational since 2007. Equipped with two 65 MW refrigeration compressor drives, the facility has achieved over 15 years of successful operation with minimal maintenance and an exceptional availability rate of 99.88%. This project set a new standard for reliability and efficiency in the LNG sector, proving the long-term value of electric drive systems in demanding environments.

Floating LNG project, Canada – innovation on the water.

This project represents the world's first floating all-electric LNG facility. With four complete drive train systems of 35 MW each powering the main refrigeration compressors, the plant is designed to export three million tons of eLNG per year. The project demonstrates the scalability and flexibility of Innomatics technology, delivering high performance and low emissions in a unique offshore setting.

LNG plant, Qatar – setting the global benchmark.

This LNG plant features multiple 60 MW and 45 MW trains, each with three refrigeration compressors. As the world's LNG market leader, Qatar relies on Innomatics systems to deliver maximum availability and operational excellence. This large-scale deployment showcases our ability to support complex, high-capacity facilities with proven reliability and efficiency.

LNG project, Canada – lowest emissions through renewables.

The LNG plant is powered by renewable hydropower and features 50 MW LCI eLNG trains. The facility is designed to produce 2.1 million tons of LNG per year with the lowest emissions in the global LNG export industry. This reference highlights the environmental benefits of integrating electric drive technology with renewable energy sources.

CCUS LNG project, Australia – driving sustainability with carbon capture.

This project utilizes multiple medium voltage motors and drive systems totalling 297 MW for LNG production, combined with a carbon capture project. This installation demonstrates the compatibility of Innomatics solutions with advanced sustainability initiatives, enabling operators to reduce their carbon footprint while maintaining process efficiency.

Global expertise and proven results.

Across continents and operating environments, Innomatics technology has delivered proven results, from 25 MW installations to complex 297 MW multi drive solution operating on an island grid. Our global presence and deep expertise ensure that operators can rely on our solutions for long-term reliability, efficiency, and sustainability.

Reliable motion for a better tomorrow.

Your next step:

Partner with proven experts.

Explore how our solutions can transform your operations. Contact us for detailed case studies or to discuss your specific challenges – we are ready to deliver measurable results for your business.

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