

# Argent LNG Unveils Groundbreaking AI, Drone and Robotics Strategy to Revolutionize Port Fourchon LNG Export Project

*Port Fourchon project Goes Digital: Argent LNG Presents AI-Driven LNG Innovation at GasTech 2025*

METAIRIE, LA, UNITED STATES, September 8, 2025 /EINPresswire.com/ -- [Argent LNG](#), a leading U.S. LNG developer, today announced today at GasTech its strategic commitment to integrating artificial intelligence (AI) and robotics into the development, construction, and operation of its flagship 25 MTPA Port Fourchon LNG export terminal in Louisiana. This innovative approach is designed to enhance operational efficiency, reduce emissions, optimize logistics, and set a new benchmark for U.S. LNG facilities.

At Argent LNG, we are building more than an LNG export facility. We are building a project that reflects the future of energy — smarter, cleaner, and more competitive. As global LNG demand grows and the world accelerates toward lower-carbon solutions, the opportunity is clear: the next generation of LNG facilities must deliver efficiency, transparency, and resilience.

Artificial intelligence and robotics will be central to achieving that vision. By embedding these technologies across the lifecycle of our Port Fourchon project — from design and construction through operations, shipping, and beyond — Argent LNG is positioning itself to set a new benchmark for U.S. LNG exports.

As global demand for LNG continues to grow and buyers increasingly seek lower-carbon, transparent energy solutions, Argent LNG is positioning Port Fourchon as a model for the next



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generation of LNG projects. By leveraging AI and robotics across every stage of the project lifecycle — from design and engineering to production, shipping, and global delivery — Argent LNG aims to deliver a facility that is not only competitive and efficient but also environmentally responsible and future-ready.

### AI and Robotics Driving Innovation Across Port Fourchon

**Accelerated Project Development:** AI-driven platforms are helping Argent LNG optimize every aspect of Port Fourchon's design:

Generative design evaluates thousands of configurations to identify layouts that minimize energy use, emissions, and costs while maximizing safety and operational flexibility.

Advanced site and pipeline routing optimization integrates topographical, environmental, and geotechnical data to ensure the most efficient placement of tanks, liquefaction trains, and jetties.

Regulatory compliance AI streamlines permitting with FERC, USCG, and state agencies, automatically reviewing submissions and flagging potential gaps or optimizations.



AI, Drone and Robotics will reduce CAPEX for Argent LNG's Port Fourchon LNG Export Project"

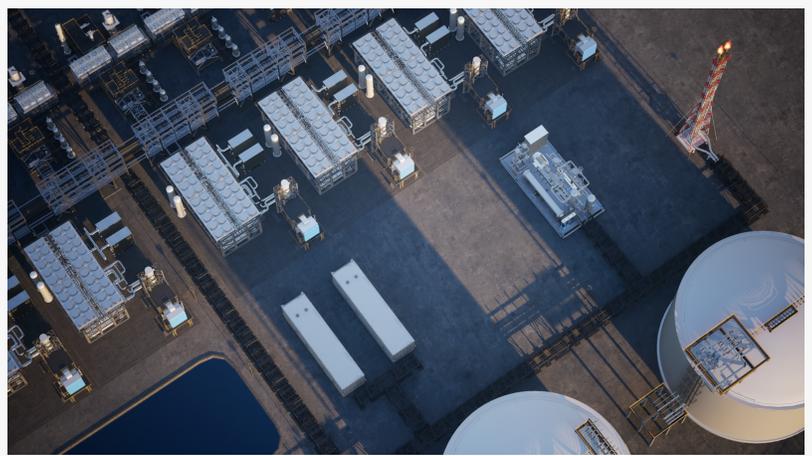
*Jonathan Bass, Chairman & CEO*

Predictive scenario modeling simulates environmental, market, and policy changes to future-proof project planning and investment decisions.

### Smarter Construction and Execution:

and robotics:

Supply chain analytics coordinate timely delivery of liquefaction modules from Baker Hughes, pretreatment systems from UOP, power solutions from ABB, and LNG tanks from GTT. Construction monitoring via drones, sensors, and AI platforms provides real-time schedule



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optimization and autonomous progress tracking.  
Robotics-enabled safety systems enhance workforce protection and reduce on-site incidents.  
Augmented reality (AR) integration with AI allows field engineers to visualize complex systems in 3D, reducing errors and accelerating assembly.

#### Optimized Operations and Efficiency:

Once operational, Port Fourchon will leverage AI to maximize throughput and reduce costs:

Predictive maintenance platforms detect anomalies across compressors, turbines, and cryogenic equipment before failures occur.

Liquefaction train optimization algorithms continuously tune plant operations to reduce fuel gas consumption, lowering both operating costs and Scope 1 emissions.

Integrated energy management systems balance renewable power, grid supply, and future carbon capture to optimize overall plant efficiency.

Autonomous monitoring systems allow for early detection of equipment degradation and energy inefficiencies, further reducing downtime and emissions.

#### Carbon Transparency and ESG Differentiation:

AI allows Argent LNG to deliver transparent, lower-carbon LNG to the global market:

Cargo-level carbon passports provide buyers with verifiable emissions data from wellhead to delivery.

Methane detection drones and robotics enable real-time leak identification and rapid mitigation.

Carbon market intelligence informs offsets and compliance strategies.

Blockchain-enabled data integrity ensures transparent reporting, supporting ESG and investment decision-making.

#### AI-Enhanced Shipping and Trading:



Argent LNG GTT Tanks 2



Argent LNG - Baker Hughes

Beyond production, AI drives competitive advantages in LNG logistics:

Smart routing algorithms optimize voyage planning to reduce fuel consumption, emissions, and transit time.

Boil-off gas management AI ensures optimal reliquefaction and utilization for operational efficiency and emissions reduction.

Real-time market analytics match Port Fourchon cargoes with the highest-value buyers worldwide.

Predictive risk analytics model geopolitical, climate, and market disruptions to safeguard deliveries and maximize revenue.

Future-Proofing Port Fourchon:

AI and robotics also position Port Fourchon for long-term resilience:

End-to-end digital twins of the supply chain allow scenario planning for hurricanes, regulatory changes, and carbon price fluctuations.

Integration with carbon capture, hydrogen, and bio-LNG ensures adaptability to a lower-carbon future.

Cybersecurity AI protects critical infrastructure against evolving digital threats.

Autonomous monitoring and operational learning systems ensure continuous improvement in plant performance and environmental footprint.

Showcasing Innovation at GasTech 2025, Booth D10

Argent LNG is highlighting this innovative approach at GasTech in Milan, demonstrating how AI and robotics are integral to the Port Fourchon project. The company will present how these technologies:

Enhance efficiency across design, construction, and operations,

Reduce boil-off gas and improve cargo management,

Strengthen predictive maintenance and workforce safety, and

Enable auditable carbon transparency for every shipment.

“At Argent LNG, we see AI and robotics not just as tools, but as core enablers of building the most advanced LNG facility in the United States,” said Jonathan Bass, Chairman & CEO of Argent LNG. “By integrating these technologies from the beginning of design through delivery, we are ensuring that Port Fourchon will set new standards for efficiency, sustainability, and competitiveness in the global LNG market. Our approach demonstrates that technology can create LNG facilities that are smarter, cleaner, and resilient for decades to come.”

About Argent LNG

Argent LNG is developing a 25 MTPA LNG export terminal at Port Fourchon, Louisiana, with

strategic access to pipeline networks and equity gas in the Gulf of Mexico. The project is designed to deliver reliable, lower-carbon U.S. LNG to global markets while driving innovation in efficiency, emissions transparency, digital integration, and AI-powered operational excellence.

jonathan bass

Argent LNG, LLC

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