Serving the Global LNG Industry

With extensive experience throughout the LNG supply chain, ABB provides total automation, electrification and telecommunication solutions that ensure safe, environmentally friendly and profitable LNG operations.

LNG
Liquefied Natural Gas
Safety, risk management, operational excellence and sustainability are important to our customers and to us. For more than 50 years, ABB has worked closely with Oil & Gas companies worldwide to provide innovative solutions and services that meet the strictest requirements in these areas.

Today, ABB is the leading supplier of power, automation and telecom solutions to the LNG industry. Our global capabilities mean we always complete work on time and on function, no matter how remote your location may be. Our hallmarks include enhanced recovery, extended asset longevity, tail-end productivity improvements and transformation of stranded assets to profit sources.

Our objective is to maintain recognized world-class positions in these areas and in newer disciplines, such as e-operations and remote asset management.

Innovation through experience and proven ability to handle large projects in automation, telecommunications and electrification distinguish ABB as a highly competent supplier to the LNG industry. Our integrated solutions offer the industry’s best availability, quality, risk reduction and information flow.

Combined with total lifecycle services, integrated solutions improve your Return on Capital Employed (ROCE), making ABB an ideal partner throughout the entire lifetime of your LNG installation.
Our professional project management, global presence and strict compliance with international industry standards ensure timely, high quality deliveries throughout all project phases, from concept to operation - with a firm focus on Health, Safety, Security and Environment.

We execute projects around the globe, with local content and support to ensure knowledge transfer. The combination of global execution and local involvement improves productivity in even the most remote locations.

ABB contributes to lasting improvements across the project’s lifecycle by bringing special expertise to the integrated engineering team, including multi-discipline experience and in-depth product and system integration knowledge. Powerful engineering tools allow us to receive data from all project parties to build a transparent application that gives operators, engineers, maintenance personnel and planners a single view into the entire installation.

Our focus on system migration paths allows us to upgrade existing installations to state-of-the-art solutions without production stops. Our de-bottlenecking services and advanced process control products increase revenue and lower operational costs, also without production stops.

Throughout the lifecycle of your facilities, we are uniquely positioned to support your changing service requirements. Our full spectrum of services give our customers the flexibility to match our capabilities with their needs.

We deliver large multiscope projects to the entire LNG value chain, from gas production to regasification and distribution, with the objective of meeting each customer’s goal to reduce Total Installed Cost and Total Cost of Ownership.

As a leader in automation and power systems, ABB offers a wide portfolio of products and services tailored to the special demands of the LNG industry. By bundling automation, electrification and telecom together in large multiscope projects, we help customers minimize scope expansions, schedule extensions and change orders.

Large Multiscope Projects are a core competence of ABB.

Risk management

Manage Large Projects Effectively – We provide large-scale effects in terms of administration, engineering, documentation, testing and handling logistics of multi-discipline packages.

Improve Forecasting and Prediction – One project organization supplying and coordinating packages with numerous interdisciplinary interfaces minimizes risks, contingencies and variations.

Form Reliable Alliances, Share Risk – We assemble the project team from various organizational units who share in the risks.

Extensive lifecycle services complement our multiscope solutions to provide asset management throughout the LNG supply chain.
Safety is ingrained in ABB’s heritage and technology. The world’s first integrated safety and control system was supplied by ABB in the mid-1980’s.

Today, safety remains an indelible part of our automation solutions, and our broad range of safety system products meets the most stringent safety standards of the LNG industry.

Working closely with customers over the years, we’ve developed a complete range of standard and industry-specific products and systems that address the industry’s special requirements and challenges.

Our thorough understanding of customer requirements combined with our expertise in new technology positioned us to invent IndustrialIT. Today, our IndustrialIT System 800xA is the leading automation system in the LNG industry. The 800xA family includes a lifecycle simulator that is an invaluable tool for increasing safety and reducing costs.

We offer high quality instrumentation solutions and services to continually enhance your operations. Ex proven gas flowmeters, level, temperature and pressure measuring devices are just some of the many instruments included in our portfolio.

More than 4,000 instruments are connected via HART buses in the world’s most northern liquefaction plant, near Hammerfest. Remote I/O and integrated instrumentation diagnostics reduce time to install and lower maintenance costs in this multi-scope delivery with automation, electrification and telecom systems supplied by ABB.

During a routine shutdown, ABB successfully upgraded an NGL plant in Qatar. Operators were trained on a simulator with the same operator environment found in the real plant. On the simulator, they learned how to take maximum advantage of the system and avoid the risk of man-induced errors.

For one of the world’s most challenging subsea projects, Ormen Lange, located more than 100 km offshore at a depth of over 1000 meters, ABB, together with the customer and EPC contractor, participated in a FEED study that will reduce operational costs. ABB is also reducing design costs with technology that’s both innovative and compliant with industry requirements and client preferences.

ABB telecom projects range from small to complete EPC contracts with OHS responsibility. In Far East Russia, ABB’s knowledge and experience in telecom supply is being used in one of the largest international Oil and Gas projects ever. This large offshore and onshore project features a highly complex project interface matrix, and consequently, a very demanding engineering phase.

At ABB, we are committed to providing high-quality solutions that meet the needs of our customers. Our automation and safety solutions are designed to enhance productivity, reduce costs, and improve safety. Whether it’s through our extensive product portfolio, our expertise in new technology, or our dedication to customer service, we are here to help you succeed.

AbbVie is a global biopharmaceutical company focused on developing innovative medicines. We are committed to advancing the science of medicine to help people live longer, healthier lives.

Our portfolio includes a range of products and services that are designed to meet the needs of healthcare professionals and patients alike. From cancer therapies to immune system modulators, our goal is to provide the best possible care for those who need it most.

In addition to our product offerings, we are also dedicated to improving the healthcare system through research, education, and advocacy. We believe that by working together, we can make a significant impact on the future of medicine.

At AbbVie, we are committed to innovation and delivering meaningful outcomes for our patients. We will continue to invest in our research and development efforts to bring new and innovative treatments to the marketplace.

Thank you for considering AbbVie as a partner in your healthcare journey. We look forward to serving you and your loved ones in the years to come.
ABB is one of the largest manufacturers of electro-technical products and systems. Our high-efficient Low Voltage, Medium Voltage and High Voltage products meet all the standards of the Oil & Gas industry.

ABB has been at the forefront in developing electro-technical solutions that comply with new requirements for energy efficiency, control and safety. Featuring high reliability and performance, our electrical products are suitable for remote and unmanned operation. With its light weight and compact design, our equipment is ideal for refurbishment projects that have space constraints and low weight budgets.

Energy management is where we stand alone in our ability to squeeze out more plant efficiencies and reduce costs. We help you manage energy with solutions that range from assistance in selecting a power delivery concept to installation of our Power Management System that prevents blackouts, disturbances and unplanned shutdowns.

Our All Electric systems outpace traditional gas turbines to provide increased energy efficiency, higher availability, less maintenance and drastically reduced project schedule cycle times. In addition, All Electric drive solutions improve the plant’s speed control. Combined with our advanced control solutions, it helps increase the plant throughput.

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Customers who use ABB for LNG power system design experience improved system performance and significant cost savings. Power system services include system design, system availability and load flow calculations. For large project deliveries with a broad scope and as a member of the integrated engineering team, ABB can adjust workflows, resources, tools usage and costs to accommodate the principal works schedule.
A Lifecycle Partner

**Driving for Efficiency**
throughout all project phases

Operational costs are lowered when ABB is involved from the inception of the project. We are dedicated to finding solutions that satisfy your technical requirements, financial objectives and production goals. Your risks are reduced when you take advantage of ABB’s experience and expertise across multiple disciplines.

Over the past decades, engineering efficiency has greatly increased, due in part to knowledge transfer, standardization and more efficient tools. ABB’s Industrial IT Aspect Objects™ architecture supports lead-time reductions and future expansions by allowing parallel testing of large systems in multiscope deliveries.

Our systems and solutions are tightly integrated, which not only reduces engineering efforts, but also reduces risk and cost overruns resulting from interface challenges. For example, we simplify your recordkeeping for maintenance, compliance and quality assurance by establishing a single source for documentation and making sure that all the documentation you receive meets the same high standards and follows the same format. Our quality assurance processes seamlessly integrate with your own quality matrix, providing better transparency.

ABB’s consistent focus on migration philosophies prevents downtime and improves ROCE during system upgrades. We guarantee efficient and effective hot-changeover modifications in existing LNG installations. Process tuning and enhanced recovery solutions are also supplied as hot-changeover projects.

By managing large projects effectively and offering associated lifecycle services, ABB reduces your risk and improves your return on investment.

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In Venezuela, we performed feasibility studies, followed by a complete Front End Engineering Design (FEED) package, for a major gas processing facility with a capacity of 1,200 MMSCF/D and facilities for ethane extraction as well as complete product fractionation.

In Australia, ABB furnished proprietary cryogenic process technology for a grassroots gas processing complex. Our technology enabled the customer to maximize product revenues by increasing the production and export of LPG.

In northwest China, we delivered a complete automation system for a base load LNG plant in Shan Shan, Xinjiang province.

For more than two decades, we have supplied the LNG value chain with integrated DCS and safety systems. In Japan, where our long presence in the industry testifies to our leading market position, we have successfully upgraded automation systems without production stops.

Our electrical products and systems have been delivered to a majority of all liquefaction plants around the world. Our wide range of services has been called upon across the entire lifecycle in design studies, load calculations, training, support, etc.

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Operational excellence is achieved when continuous improvement strategies are matched with real-time feedback and analysis tools to maximize production and reduce operational costs. ABB services, used throughout the operations phase, deliver operational excellence.

ABB’s automation system seamlessly presents real-time asset information to operations, engineering, maintenance and management. From this information, predictive and proactive maintenance strategies can be developed to minimize unplanned downtime and optimize productivity.

Timely and reliable production information is vital in order to analyze and improve productivity. ABB’s Production Information System offers an open architecture for data collection from ABB and third-party systems, and delivers customized reports.

ABB’s Asset Management products integrate seamlessly with business systems, improving workflow with hierarchically structured and aggregated business, operation and maintenance information. Campaign-based maintenance greatly improves productivity compared to traditional preventive maintenance.

ABB has a wide portfolio of products to stabilize and optimize production, improve the operator environment and reduce unscheduled downtime. Our on-site and remote audit and tuning services have been delivered worldwide and are an example of uncovered Lost Profit Opportunities (LPO) converted into operational cost savings.
ABB has standardized processes, tools and matrices throughout our worldwide service network so you always receive consistent, high-quality service and parts – whenever and wherever needed.

ABB offers specialized Performance Improvement Services, such as Overall Equipment Effectiveness (OEE) analysis, that are designed to enhance process operations. To ensure optimal equipment effectiveness, our OEE analysis may be supplemented with an implementation plan and implementation services. Performance Improvement Services cover just one of many offered service areas.

On-site ABB services range from installation support to full project management. Adding ABB support and remote services allows customers to minimize operational costs and increase productivity and revenues.

For aging LNG installations, ABB offers migration and retrofit analysis. Our professional migration strategies and implementation result in low-risk improvements to the OEE level. As a leading supplier to the LNG industry, ABB offers Step-up Programs and Software Maintenance Programs that reduce downtime and maintenance costs.

Well-trained LNG staff are able to increase both production and uptime. ABB offers a wide spectrum of training courses held on site, at ABB facilities or electronically via our eLearning products.

Our continuing quest is to meet the present and future needs of the industry. Environmental requirements and safety and security demands will influence our development of energy efficient solutions that also reduce the cost of service.

We pursue new, environmentally friendly technologies that decrease emissions and waste. ABB’s research and development initiatives help customers to lower emissions, make plant technology and operations more efficient, reduce the use of materials and achieve other key goals in controlling environmental impact.

We are constantly improving our technology to anticipate and prevent hazardous events within and around the plant, and to meet increasing requirements in the area of security and plant access control.

Higher productivity drives us towards technology that supports larger capacity LNG trains. This may be achieved through advanced optimization of the process and use of high capacity electrical drives systems, combined with innovative process technology.

As the spot market for LNG evolves, the industry needs a system that can provide data for the best transaction decision and adjust the plant production accordingly. The solution may lie in managing such parameters as the long lead-time between liquefaction and regasification and the balance between producing electricity for liquefaction versus selling electricity.