Increase efficiency and availability across your entire LNG process
In LNG operations, efficiency and reliability drive success. A single day of downtime can cost millions of dollars in lost revenue. Turbocompression technologies from Baker Hughes, a GE company (BHGE), revolutionized large-scale LNG in the 1990s, and we've continued to invent, evolve, and push boundaries. Our proven solutions improve plant-wide performance for LNG production, liquefaction, regasification, and storage facilities — no matter the size or location of the operation.

With BHGE, you can:

• Drive increased performance
• Leverage proven technologies from the world’s toughest industries
• Customize your LNG solution
• Achieve rotating equipment and process excellence
Drive better performance

LNG operators depend on our industry-leading capabilities and fully customized solutions to minimize installation risks and reduce on-site time and costs by up to 30%. Proven in the most extreme conditions, our pre-designed, fully configurable modules integrate seamlessly with auxiliary systems and controls. We connect, wire, and validate modules before delivery to minimize risk and disruption.

BHGE supplies turbocompression trains for all the main LNG processes. Our versatile technologies, breadth of experience, and single-source approach deliver higher efficiency, reliability, and availability in every aspect of a plant’s operations. In addition to design and manufacturing, we also provide comprehensive in-house testing, installation, startup and commissioning support, maintenance, plant integration, and upgrading.

**Re-envision your compression options**

BHGE provides a wide range of proven compression solutions, from axial to large centrifugal technologies. Our low-pressure mixed refrigerant compressor for the recent Gorgon LNG project has the highest power ever for a single casing with around 93 Megawatt MW. Our advanced High Pressure Ratio Compressor (HPRC) technology delivers higher pressure ratios and efficiency levels than those possible with traditional compressors. HPRC is suitable for many gas processes, and it dramatically reduces the required footprint, single-handedly carrying loads that typically require multiple traditional compressors.

**Match your turbine to your needs**

Our gas turbines cover every application in the LNG industry, and include technologies proven in various GE jet engines to offer exceptional reliability and availability. Our aeroderivative gas turbines are lightweight, high performing units that are easy to install, require simple maintenance, and can be easily integrated into existing infrastructure.
LNG

Leverage proven technologies from the toughest industries

Reduce your total cost of ownership
Derived from the GE90-115B that has powered Boeing 777 aircraft since 2004, our LM9000 gas turbine is one of the most competitive gas turbines for LNG mechanical drive in the 65+ MW class. It provides 43% simple-cycle efficiency, over 80% cogeneration efficiency, 99% availability, and best-in-class total cost of ownership. It includes DLE technology that enables dual-fuel capability and reduces nitrogen oxide emissions while eliminating water use in emissions abatement.

Reduce your control system update time
Using virtual design and technology targeting, we upgraded the 20-year-old turbocompression control system of a 9.6 MTPY LNG plant to our latest Mark™ VIe system. By designing a customized modular migration kit that kept most of the existing panel structure — and that injected only the new technologies that were absolutely necessary to achieve full modernization — we completed the upgrade in just eight days during the plant’s scheduled maintenance outage window. CAPEX savings alone were 20-25%. The reduction in downtime saved our customer up to $5 million USD per day for an additional two weeks.

BHGE has the unique ability to overcome conventional industrial limitations and to drive performance regardless of business, application, or geography. We regularly apply the most advanced solutions from other GE businesses, including Aviation, Healthcare, Energy, and Digital, to improve our oil and gas technology. Our resources also leverage more than 3,600 of the world’s best scientists and engineers at GE Global Research Centers, plus more than 50,000 specialists at individual GE businesses and BHGE.
Customize your LNG solution

Every LNG facility is unique. That’s why we customize solutions based on your specific needs. We offer a comprehensive range of equipment designed to perform across the entire spectrum — from small-scale micro modules to the largest LNG operations in the world.

Since 1985, we have systematically evolved modular turbomachinery design. We have supplied more than 50 pre-assembled power generation and compression modules to projects around the world — delivering unmatched performance in remarkably compact packages.

Get big results from small LNG

Ideal for a variety of remote power, utility, and transportation applications, our plug-and-play liquefaction plant can produce between 25 and 1,200 kgal/day of LNG. Its modular design gives you the flexibility to customize equipment selection — while ensuring fast commissioning, simple operation, and low maintenance. We also provide a wide range of financing options and commercial models to help you get the exact solution you need.

Get world-class dollar-per-kilowatt ratio

The LM6000-Pf+ gas turbine delivers 54.3 MW shaft power (or up to 60 MW with optional GE SPRINT technology), high efficiency, low emissions, and the best dollar-per-kilowatt ratio in its power class. The PF+ is more flexible and reliable than other options, starts up in under five minutes, and reaches full power in 10 minutes. More than 20 customers recently attended testing across the full power range, and the unit is undergoing long-term testing and data collection at a customer’s facility.
Achieve rotating equipment and process excellence

Our unrivaled OEM engineering expertise ensures the long-term reliability and availability of the equipment you need to keep your plant at peak performance. Extensive data analysis from our installed fleets helps improve equipment performance while identifying inventive ways of solving old problems — including technologies, flexible service models, and performance-based service agreements.

Create sustainable operations

With hundreds of wells spread over a wide area, Santos GLNG needed to minimize travel to well sites and enable remote maintenance decisions. Moving from spreadsheets to GE’s Predix™-based Asset Performance Management (APM) solution let Santos GLNG proactively mitigate risk from valves headed toward failure, minimize field travel, reduce operating expenditures, and maximize productivity.

Build a service package to fit your operation and objectives

You can tailor a BHGE Contractual Service Agreement (CSA) to your facility’s exact needs, even in remote locations and harsh conditions — and reduce maintenance costs by as much as 20%. There are six agreement frameworks to choose from, and including a performance guarantee means you can share the risk. Our CSAs deliver the most appropriate solutions, take advantage of the latest GE Predix-based digital tools and advanced analytics to give you access to new technology injections that aren’t possible with third-party suppliers.
LNG

Turbomachinery
- Turbines
- Compressors

Processing and control
- Valves
- Actuators
- Pumps
- Control systems
- Fuel gas systems
- Turboexpander-compressors
- Turboexpander-generators

Modular solutions
- Large-scale modules
- Small-scale modules

Comprehensive service solutions
- Contractual service agreements (CSA)
- Condition monitoring and vibration monitoring
- Upgrades
- Spares, repairs, field service engineers (FSE)
- Advisory services
- Customer training
- Process commissioning and maintenance services
- Nitrogen services
- Cleaning and drying services
- Precommissioning services
- Turnaround services

*Combined Baker Hughes / GE Oil & Gas portfolio

For more information:
bhge.com