



Capability Statement

Bechtel Plant Support Services





Achieving LNG Excellence

Bechtel Energy's Plant Support Services (PSS) delivers fully integrated greenfield and brownfield LNG services, leveraging Bechtel's global EPC portfolio, supply chain expertise, and constructability skills. We deliver tailored solutions regardless of Liquefaction Process Technology, scaled to customers' specific needs.

We believe success is achieved by connecting forward-thinking customers with world-renowned subject matter experts, diverse project delivery professionals, and trusted construction execution teams with a focus on collaboration, safety, and constructability from the first engagement to achieve the highest reliability and quality standards.

Our Expertise

Bechtel is a global leader in Engineering, Procurement, and Construction (EPC), with a strong track record in constructing over 30% of the world's LNG facilities. We prioritise safety, quality, and sustainability, delivering complex projects on time and within budget.

Our LNG Plant Support Services ensure the same high-quality construction expertise beyond project commissioning. Our team grants access to Bechtel's extensive resources and top-notch Project Management capabilities. We have experienced professionals worldwide, including subject matter experts, engineers, construction execution professionals, and supply chain management specialists, ready to provide world-class solutions.

We offer an unparalleled approach, tailored to meet specific project needs regardless of size, complexity, urgency, or economic constraints. Our industry-leading work processes and procedures, developed over our 125-year history, guarantee certainty of outcome synonymous with the Bechtel name.

Bechtel leads in constructing and supporting LNG facilities globally, while prioritising sustainability and energy transition. We collaborate closely with our customers to help them achieve their goals for a greener future



Services Overview

Supporting clients from concept to completion and beyond

Front End

- Engineering studies and feasibility phase reviews
- Front-end engineering design and proposal packages
- Master planning and execution management
- Technology assessments aligned with CAPEX and OPEX targets

Lifecycle Support

- Operational debottlenecking
- OEM and process support
- Predictive modelling and transient analysis
- Data visualization and analysis
- Plant optimisation evaluations and integrity checks

Back End

- Operational support for inlet gas composition changes
- Facility equipment life extension opportunities
- Power management studies
- Facility operational troubleshooting





Demonstrated Performance – Energy Transition

Decarbonization and Methane Abatement

We assist our customers in establishing low-carbon or zero-carbon liquefaction plants and reducing methane emissions to meet environmental commitments, regulatory requirements, and investor expectations. Our innovative designs, advanced technology selection, construction, and operating solutions help them achieve their decarbonisation and methane abatement targets.

How we can help

- Optimisation of liquefaction processes and efficiency improvements
- eDrive approaches for electrification of existing gas turbine driven facilities
- Carbon capture and sequestration options
- Thermal oxidiser verification and selection for waste gas process streams
- Flashing liquid expander solutions for optimal plant operations resulting in CO₂ reductions
- Activities that support a transition to a hydrogen economy
- Seal gas recovery systems to reduce continuous seal emissions by re-routing
- Dynamic nitrogen dry-out procedures prior to cooldown using nitrogen instead of defrost gas flaring
- Plant cooldown procedures with minimal flaring
- Solar and BESS solutions for facility power and managing transient loads during the shift to renewable energy

Brownfield Project Execution

One of our primary goals is to improve energy efficiency and reduce carbon emissions in existing facilities. Our clients have ambitious decarbonization targets that involve accessing renewable energy sources, implementing energy-efficient upgrades, and undertaking infrastructure decarbonization initiatives.

As a trusted EPC contractor, we handle the complexities of brownfield construction in operating plants. We work closely with plant operations and maintenance to minimize production impacts, adhere to scheduled plant downtime, and ensure compliance with HSE programs.

Facility expansion optimization and capital improvements

We assist customers in evaluating facility expansion requirements and implementing solutions for optimal efficiency, cost-effectiveness, reliability, and the turndown capability needed for flexible.

Design life studies

Executing plant life extension services in brownfield environments improves operating asset performance. We assess the current condition of the plant using proven asset life study methods. We procure and execute necessary modifications to meet optimized schedules and costs. Examples include:

- Qualification of existing materials and systems
- Complete facility and equipment turndown analysis
- Stress and structural analysis
- Isolation and preservation reviews
- Management of change and functional safety reviews
- Advanced work packaging for enhanced SIMOPS execution, including visualising and planning work fronts, assessing material availability, and prioritising engineering design and construction.

Project feasibility studies

Developing early project plans for optimised solutions is crucial for successful project financing and execution. Bechtel provides a wide range of feasibility studies across capacities, technologies, environments, and challenging geographic constraints to help customers progress towards viable plant enhancements.

Asset maximization / optimization studies

Our diverse experience in LNG facilities and technologies, coupled with innovative construction tools, helps customers achieve their asset maximization goals. Key focus areas include:

- Increasing plant production capacity
- Reducing fuel usage
- Maximising on gas monetisation while minimising emissions
- Equipment internals studies to increase overall efficiency
- Facility control system modifications
- Optimisation of major facility equipment, including compressor units that harmonize with gas turbine designs.

In all instances, we work closely with vendors to help customers enhance the performance of their equipment and ensure they obtain the best industry results in relation to LNG production and operability.





Contact Us

To learn more about how PSS can help you with your LNG project, please contact us today. We would be happy to discuss the specific requirements and potential opportunities available to match your facility.

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