

Natural Gas Facility Engineering Services

EN Engineering has extensive experience relating to the design and installation of various natural gas facility projects, including compressor stations, meter/regulator stations, and storage facilities. The scope of these projects can include small-scale maintenance-driven projects to large system expansions. EN Engineering's natural gas transmission professionals have decades of operational and project experience. They have worked as owners and operators in many of the same industries as our clients, and have the expertise to complete all phases of a facility project from preliminary engineering and costing to detailed design and commissioning. Our facility engineering services are customized, engineered, and delivered with a focus on exceeding stakeholder expectations and building long-term relationships with our clients.

Services

- Front-end engineering design studies
- Hydraulic analyses for optimizing the use of compressor HP and related equipment
- Design basis manuals
- Detailed engineering design
- P&ID development
- General arrangement drawings
- HAZOP reviews
- Detailed mechanical, electrical, civil, and structural design
- Procurement and material handling support
- Construction management
- Commission and startup assistance
- As-built and closeout support



Compressor Station Engineering Services

Our team has designed a variety of compressor station projects ranging from small packaged compressor skids to large multi-unit compressor stations. We apply our expertise to a range of compressor and driver configurations, including natural gas turbine driven centrifugal compressors, natural gas engine driven reciprocating compressors and electric motor driven compressors.

- Complete engineering studies
 - Hydraulic analyses
 - Sound studies
 - Pulsation analyses
 - Stress analyses
- Full-service engineering design packages
 - Mechanical piping and process equipment
 - Civil grading plans and building foundations
 - Structural package including piping support systems, walkway designs, and access points
 - Electric sub-station and utility interface
 - Design auxiliary system requirements for air, fuel, ESD, and power
 - PLC integration
 - Corrosion control and cathodic protection designs



- Procurement and construction management support
 - Develop specifications
 - Obtain and analyze material, equipment, and service quotations

Natural Gas Meter/Regulator Station Services

EN Engineering's pipeline design team is experienced in the operation and design of pipeline interconnects, custody transfer metering, and pressure regulating facilities. Our professionals have designed facilities with measurement devices such as:

- Ultrasonic skids, positive displacement, turbine, coriolis, ultrasonic, and rotary
- Prover loops and small volume provers
- Gas chromatograph sampling systems and lab buildings
- Heating equipment
- Control valves, over pressure protection devices, and flow control devices
- Filter/separators
- Odorization systems



Natural Gas Production and Storage Facility Services

With degreed engineers in a broad range of disciplines including chemical, geological, and petroleum engineering, EN Engineering provides comprehensive and dependable engineering services to midstream, production, and companies with underground storage. This expertise, combined with many years of hands-on experience in natural gas gathering, storage, and production, provides a skill base with a sound understanding of the unique requirements of these facilities.

Our staff has completed the engineering of:

- Dehydration equipment
- Liquid handling components
- Slug catchers
- Thermal oxidizers
- Gas conditioning and treatment plants
- H₂S mitigation systems

