

OPERATIONAL EXCELLENCE

SHAH DENIZ 2, AZERBAIJAN AND GEORGIA

Delivering one of the largest and most complex gas projects in the world.



**>90%
Nationalized
workforce**

**Integrated
service offering**

24/7 working

The Challenge

Shah Deniz, BP's largest-ever gas discovery, was made in 1999. To meet growing demand and evolving regulations, it required a major upgrade

Since 2015, we've partnered with BP and tier-one contractors to deliver Shah Deniz 2 - a \$28 billion energy powerhouse that's now supplying natural gas to Turkey and Europe. This is one of the world's largest and most complex gas projects, with an expected peak production of 16 billion cubic meters of gas annually and 3 million tons of condensate.

The Solution

Shah Deniz 2's scale demanded seamless teamwork. We partnered with BP and contractors to ensure safe, efficient delivery. Our system integrity management (SIM) software unified teams, ensuring full traceability and accountability. We also created a bespoke training program, building a skilled workforce – with over 90% of our team being local to Azerbaijan.

The project involved both offshore operations and work onshore at the Sangachal terminal and Georgia compressor stations, drawing on solutions from EnerMech's Energy Solutions and Industrial & Infrastructure Solutions business lines.

The Outcome

On-time, successful delivery of Shah Deniz 2 securing a vital natural gas supply to Europe, supporting energy diversification and the transition to cleaner energy. Our work on this groundbreaking project also led to a global partnership with BP for broader integrity management solutions.

We delivered:

- Flange integrity management
- Nitrogen, helium and air leak detection
- Specialist flange machining and pipe cutting
- Hydrotesting
- High pressure instrument tubing installation
- High pressure water jetting
- Chemical cleaning

Leak-free guarantee

EnerMech's 'leak-free guarantee' assured BP of a risk-free, efficient and smooth system handover. This exceeded expectations and the industry norm by achieving:

- **99.96%** leak-free on **2,320 low pressure**, air tested connections
- **99.32%** leak-free on **16,032 high pressure**, nitrogen and helium tested connections.

From Commissioning to Operations

Ten years on from the initial pre-commissioning phase, EnerMech is still delivering nitrogen and associated services to BP in Azerbaijan, under a long-term Federal Contract.