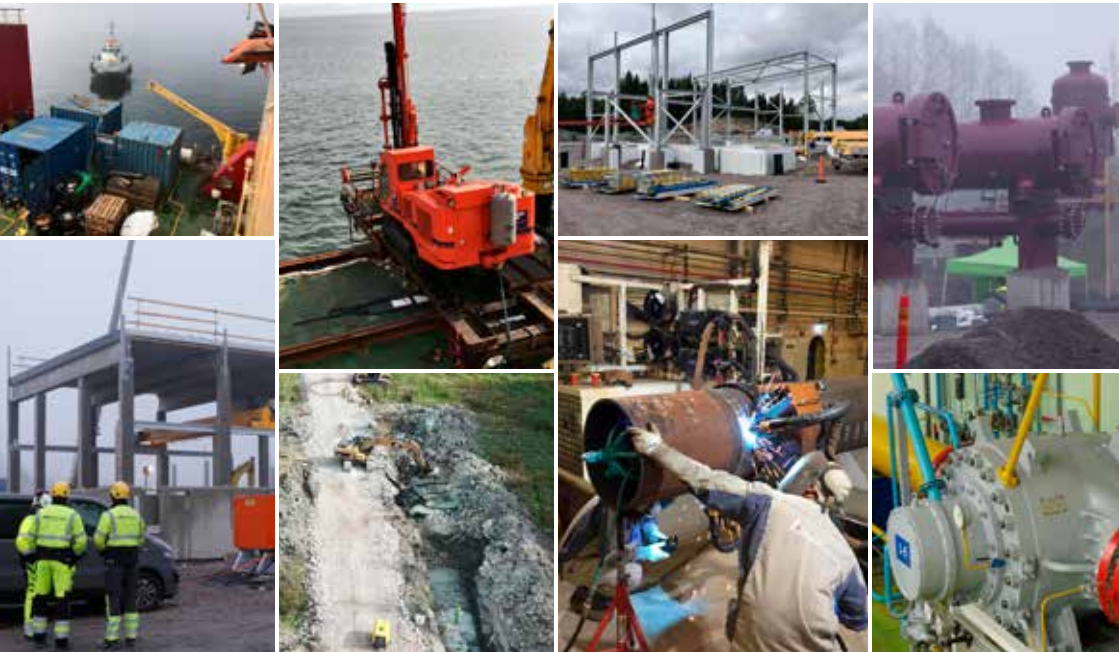


BALTICCONNECTOR natural gas pipeline worksites



Balticconnector is a gas pipeline that connects Finland and Estonia and links the Finnish and Baltic gas markets, enabling their integration with the EU's common energy market.



Euroopan unionin osittain rahoittama
Verkojen Eurooppa -väline

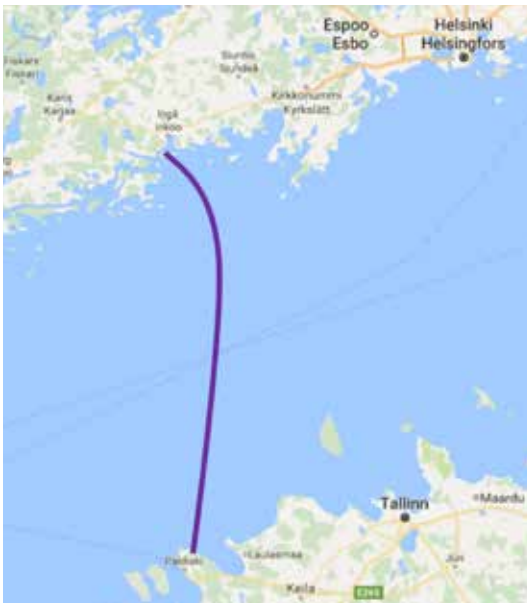
Sign up for worksite bulletins delivered straight to your email at balticconnector.fi/tyomaa

General

The project comprises 5 worksites, three of which are located in Finland. The Finnish part of the project is implemented by the state-owned company Baltic Connector Oy, and the Estonian part is implemented by Elering AS.

Baltic Connector Oy is responsible for worksites **1–3**, and Elering AS for worksites **4–5**.

- 1. Siuntio – Inkoo onshore pipeline** (Finland), pipe diameter 500 mm and length 21 km
- 2. Compressor and metering station in Inkoo** (Finland)
- 3. Inkoo (Finland) – Paldiski (Estonia) offshore pipeline**, pipeline diameter 500 mm and length 77 km
- 4. Compressor and metering station in Paldiski** (Estonia)
- 5. Paldiski – Kiili offshore pipeline** (Estonia), pipeline diameter 700 mm and length 55 km



Inkoo-Paldiski offshore pipeline

The offshore pipeline will join the Siuntio–Inkoo natural gas pipeline approximately 1 km from the Inkoo compressor and metering station on the shore in the Fjusö region. The pipeline will run along the seabed and will largely be covered by rock. The rock cover will protect the pipeline from hazards such as ship anchors and erosion. The pipeline landfall site in Estonia will be located approximately 50 km east of Tallinn, near the town of Paldiski.



Onshore pipeline and compressor station in Finland

The onshore pipeline of the Balticconnector gas pipeline will join Finland's current transmission system at the Pölans valve station in Siuntio and enter the Baltic Sea in the Fjusö region in Inkoo. The pipeline route will mainly run through the municipality of Inkoo and, for a short distance in the northern part of the route, the municipalities of Lohja and Siuntio.

The station to be built in Inkoo in the Svartbäck region comprises a gas compressor and fiscal metering station. The gas transport flow is regulated at the compressor station, and the volume of gas is measured and its quality is analysed at the metering station.



Onshore pipeline and compressor station in Estonia

The onshore pipeline running from Kiili to Paldiski will join Estonia's transmission system in the valve station in Kiili and enter the sea in Paldiski. The pipeline will run through many municipalities in Estonia – Keila, Saue, Lääne-Harju, Saku and Kiili. The compressor and metering station in Paldiski enables increasing the gas pressure and measuring the volume of gas in the bi-directional gas pipeline between Finland and Estonia. The location of the compressor station in Paldiski was selected with an emphasis on the optimal operation of the future common gas market system.

Technical information

Siuntio–Inkoo onshore pipeline

- Pipeline diameter DN500 mm and length 21 km
- Design pressure 80 bar, operating pressure 30–80 bar
- The material for the pipes is carbon steel with an epoxy-painted interior and an exterior coated with polyethylene
- Underground pipeline buried at a depth of 1.1–1.4 m
- The pipeline is equipped with cathodic protection system with two anode fields

Compressor and metering station in Inkoo

- The station's design capacity is 300,000 m³/h
- The station is monitored remotely and controlled from the system's central control station
- The station is an independent facility that will not require external auxiliary energy sources
- Gas transport flow is both directions FIN-EST and EST-FIN
- One electric driven compressor which shaft power is of Ca 6.4 MW, located in a separate compressor building
- Gas filtering and analysis equipment
- Gas fiscal metering equipment and automation system
- Separate local control room where is space for electric and automation equipment
- Onshore and offshore pipeline pig receivers and launchers

Inkoo-Paldiski offshore pipeline

- Pipeline diameter 500 mm and length ca 77 km
- Design pressure 80 bar, operating pressure 30–80 bar
- The material for the pipes is carbon steel with an epoxy-painted interior and an exterior coated with polyethylene
- The pipeline is also protected by a concrete coating with a thickness of ca 50 mm

- The pipeline's anticorrosive protection is implemented using fixed anodes

Kiili-Paldiski onshore pipeline

- Pipeline diameter DN700 mm and length ca 55 km
- Design pressure 55 bar, operating pressure 25–55 bar
- Maximum gas flow 300,000 m³/h
- Technical service life 60 years
- The material for the pipes is carbon steel with the exterior coated with polyethylene resin
- The pipeline is equipped with cathodic protection system with two anode fields

Paldiski compressor station

- Gas transport flow in both directions, FIN-EST and EST-FIN
- The maximum capacity of the compressor station is 322,000 m³/h
- One electric driven compressor unit with a power input of 8 MW is located in a separate compression building
- The estimated maximum power demand of the compressor station's electrical installations is ca 10.5 MW
- The design pressure of the compressor, pipeline and equipment is 80 bar
- Gas fiscal metering equipment and automation system
- Approximately 0.5 km of DN500 MOP 80 bar pipe will connect the gas pipeline to the offshore pipeline
- Onshore and offshore pipeline pig receivers and launchers
- Overpressure protection system (between MOP 80 bar and MOP 54 bar transport system)
- The station is monitored and managed remotely from Elering's remote management centre
- Availability over 96%

Schedule

Siuntio–Inkoo onshore pipeline

- The construction work of the onshore pipeline was started with the removal of trees from the worksite area in February 2018
- Tree cutting and harvesting in March 2018
- Clearing-up operations on the site in May 2018
- Blasting work in sections with rock formations in June 2018
- Pipe excavation work in June–July 2018
- Transporting the pipes to the route and installation work started in summer 2018
- Pipeline commissioning by the end of 2019

Compressor and metering station in Inkoo

- Station's construction work started in February 2018 with levelling and excavation work in the area
- Area works completed in May 2018
- Station's construction work in June 2018 continued with the foundation work of the buildings
- Material deliveries to the worksite and the station's gas pipeline installation work in summer 2018
- Pipeline commissioning by the end of 2019

Inkoo–Paldiski offshore pipeline

- Procurement of pipeline material 2017–2018
- Pipeline route preparation 2018
- Pipe laying 2019
- Back filling and final seabed works 2019
- Testing and commissioning 2019

Kiili–Paldiski onshore pipeline

- Land purchase 2006–2018
- Construction permits 2016–2018
- The main EPC agreement was signed in 2018
- Construction and installation works 2018–2019
- Commissioning 2019

Paldiski compressor station

- Basic engineering 2017
- Procurement 2017–2018
- Detailed engineering 2018
- Construction and installation works 2018–2019
- Starting commissioning 2019



Safety rules

The following rules must be followed without exception in all work:



Protect yourself from falling when you are working in high places.



Make sure that electrical systems are isolated before you begin working.



Remain in the safe area when you are near moving machinery.



Do not walk beneath or near a pipe or device that is not sufficiently supported.



Wear a life vest when you are working in or near water or when you are moving from one vessel to another.



Do not walk beneath hanging loads.



Follow the traffic rules.