Gas and oil production for Europe’s energy supply

After Russia, Norway is Europe’s most important supplier of natural gas and oil. Every year, Germany imports almost every third cubic metre of its natural gas from Norway. Wintershall Dea, Germany’s largest internationally active producer of natural gas and crude oil, has been active in Norway for over 45 years.

Wintershall Dea is among the largest gas producers on the Norwegian Continental Shelf (NCS). Today it has more than 100 licences – around a third of them as operator – and a production volume of 146,000 barrels of oil equivalent per day. At the same time Wintershall Dea continues to work on transferring new discoveries on the shelf into the development and production phase.

The company operates the manned offshore production platform Brage as well as the subsea Vega and Maria field, which are tied back to existing manned facilities on the shelf. Additionally, the company develops its operated fields Dvalin and Nova, and has interest in producing fields and developments as a joint venture partner, including Skarv, Njord, Aasta Hansteen, Snorre, Gjøa and Snøhvit.
EXPLORATION

The search for gas and oil

Wintershall Dea holds promising exploration licences on the Norwegian Continental Shelf. In the 2019 APA round (Awards in Predefined Areas) Wintershall Dea in Norway was awarded nine licences, three as operator. In the North Sea, all four licences are located in areas where Wintershall Dea is already present, such as in the vicinity of the operated Brage and Vega fields. In the Norwegian Sea three of the new licenses support Wintershall Dea’s exploration strategy in the Voring Basin, where the company has a 24 per cent interest in the Aasta Hansteen field. The other Norwegian Sea license is located in a newly opened area in the Møre Basin in the southwestern part of the sea. In the Barents Sea we were awarded a 30 per cent interest in the PL 609 D license, which secures the full extent of the Alta oil and gas discovery in PL 609.

DEVELOPMENT

Dvalin: Subsea production of natural gas

The Dvalin gas field in the Norwegian Sea, about 15 kilometres northwest of the Heidrun field, is currently being developed by Wintershall Dea. Production start is planned for second half 2020. The recoverable resources amount to 113 million barrels of oil equivalent. The field is being developed using a subsea production system including a template on the seabed with four production wells, connected to the Heidrun platform. The gas will be exported via the Polarled pipeline from the Heidrun platform and transported to the Nyhamna gas terminal, before being exported to customers in Europe.
Nova: Subsea installation made in Norway

The Nova field, close to Gjøa in the northern North Sea is currently being developed by Wintershall Dea. Together with its licence partners, Wintershall Dea is tying the field back to the neighboring Gjøa platform via a subsea installation. This will enable the existing infrastructure to be utilised and the full potential of the field to be developed. The production volume is estimated at around 80 million barrels of oil equivalent.

Njord: Restarting for more yield

Production on the Equinor-operated Njord field, which is 50 per cent owned by Wintershall Dea, started in 1997 and was interrupted in 2016 to carry out modernisation work on the floating platform used. This is because production from the field is set to be significantly expanded. For example, ten new production wells are planned as part of the Njord Future project.

PRODUCTION

Maria: Subsea installation in the Norwegian Sea

Maria is the first field that Wintershall Dea has brought from discovery to production as operator in Norway. Having been discovered by Wintershall Dea in 2010, the PDO was approved in 2015 and the field came into production in December 2017.

The field is located in the Haltenbanken area in the southern Norwegian Sea, about 200 kilometres off the coast of Kristiansund. The field was developed with two subsea templates at a depth of 300 metres tied back to the nearby Kristin, Heidrun and Åsgard B platforms. With this development concept, Wintershall Dea is using existing infrastructure to produce hydrocarbons from Maria, while also extending the lifetime of the surrounding fields.

One of the milestones in each offshore production: drilling the production wells.

Brage: Wintershall Dea’s first own production platform

The Brage platform has been producing crude oil at the Brage field since 1993. Wintershall Dea became operator of Brage in 2013 as part of an asset swap with Equinor. Wintershall Dea has since carried out extensive modernisation measures on the platform. New wells continue to be drilled, extending the commercial lifetime of the field.
Aasta Hansteen: Norway largest floating SPAR platform

With the production start of the Equinor-operated Aasta Hansteen gas field at the end of 2018, Wintershall Dea has further strengthened its position as one of the largest producers in Norway. Aasta Hansteen is the deepest field in Norway, and one of the most technically advanced projects on the shelf. The operator together with the license partners successfully developed the first floating SPAR platform in Norway – the largest of its kind in the world.

The field is expected to make a significant contribution to Norway’s overall annual gas production in the coming years further securing Europe’s energy supply. The recoverable reserves in the Aasta Hansteen and Snefrid Nord fields, which are being developed jointly with the main Aasta Hansteen field, are expected to amount to 55.6 billion standard cubic metres (Sm3) of natural gas and 0.6 million Sm3 of condensate. Wintershall Dea is the second largest shareholder in Aasta Hansteen with 24 per cent.

Skarv: Major production from the Norwegian Sea

The Skarv field was discovered in 1998 and is located just south of the polar circle, 210 kilometres off the coast of Sandnessjøen. Wintershall Dea is one of the main owners of field, and production from Skarv plays an important part of the company’s diversified portfolio. The Skarv FPSO serves as a hub for other developments in the area, and currently the last one, Ærfugl, is being developed, adding more resources to the field.

Wintershall Dea in Norway: at a glance

- Country entry: 1973
- Operated fields: Brage, Maria, Vega, Dvalin, Nova
- Key partner operated: Aasta Hansteen, Skarv, Gjøa, Edvard Grieg, Njord
- Production (2019): 146 mboe per day
- Licences: over 100
- Norway’s hydrocarbon recoverable resources*: 8.3 billion Sm³ are remaining
- Norway’s total recoverable resources*: 15.6 billion Sm³, including quantities already produced
- Roughly half the total resources in the discovery portfolio lie in the North Sea, just under a third in the Norwegian Sea and about a fifth in the Barents Sea*