

GASCADE

THE GAS COMPRESSOR STATION RADELAND 2

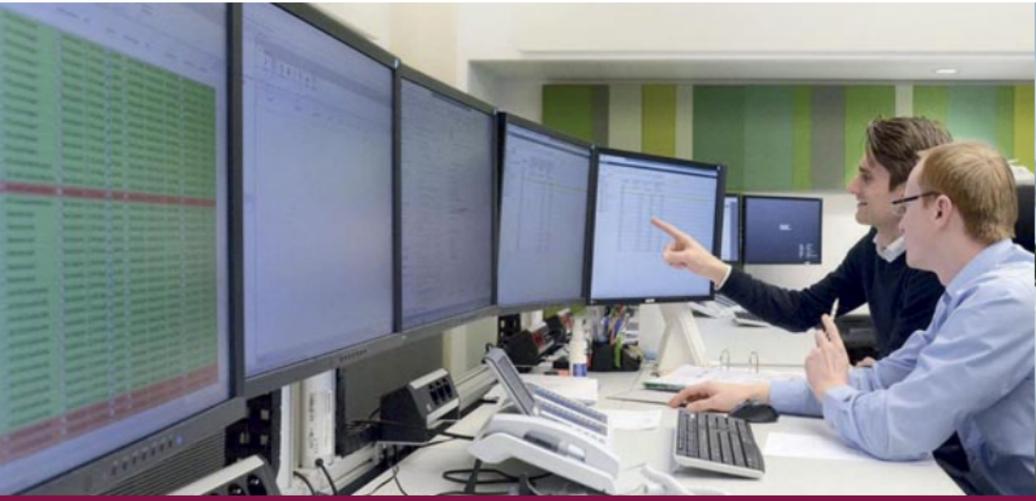


NATURAL GAS FOR EUROPE



On the path to climate-neutral supply with renewable energies, in other words, solar, wind and water, gas plays an important supporting role in Europe, since it acts as a bridge, scoring points with its large reserves, low emissions and secure transport routes. And GASCADE guarantees the latter: We make sure that gas within Germany's borders reliably reaches its respective destinations. After all, while both industrial and private demand for gas is going up, the production volume within Europe is going down. That's why gas in our pipeline network moves from the major sources in Russia and Northwest Europe both to consumers in Germany and its neighboring countries of Belgium, France, the Netherlands, Poland and the Czech Republic, and on to Southeastern Europe.

PRESSURIZING GAS



From the source to where it's used, natural gas travels many thousands of kilometers in pipelines measuring up to 1.4 meters in diameter. During this journey it loses pressure as the molecules rub against each other and the inside of the pipe.

To keep the density and hence the transport speed of the gas constant, it is compressed in natural gas compressors.

These are the core of the eleven GASCADE compressor stations that are spaced at around 250 kilometers apart in the pipeline network.

What happens in the compressor?

Several impellers are securely arranged behind each other on a rotating, cylindrical shaft in a steel casing and rotate at a speed of up to 3,600 and 10,300 revolutions per minute. This spins the molecules of the inflowing gas outward, thus compressing them more densely together. The compressors are driven by gas or electric motors located in enclosures in compressor houses for the purpose of noise control. The gas' volume is reduced when it is compressed. That means more energy can be transported through the pipeline. The pipeline's capacity increases – and so does supply security for customers.

RADELAND 2 COMPRESSOR STATION



South of Berlin in Baruth, Brandenburg, GASCADE has built one of the most modern compressor stations in Western Europe. The station is part of the infrastructure for EUGAL (European Gas Pipeline Link). On the site, covering an area of more than ten hectares, three compressors raise the pressure of the gas, after more than 270 kilometers of travel through EUGAL, back to around 100 bar. At the station, the gas can be routed both to the west and the south.

Step by step

The gas is first cleaned in natural gas filtering systems, and part of it is processed for operating the gas turbines. The molecules of the inflowing gas are spun outward, compressing them more densely together. This compression heats up the gas. Air coolers bring it back to the optimum operating temperature so that it can continue on its journey. A gas pressure control and measurement system also checks the quantity and quality of the gas before it flows westward through the JAGAL pipeline and southward through EUGAL.

TECHNICAL INFORMATION

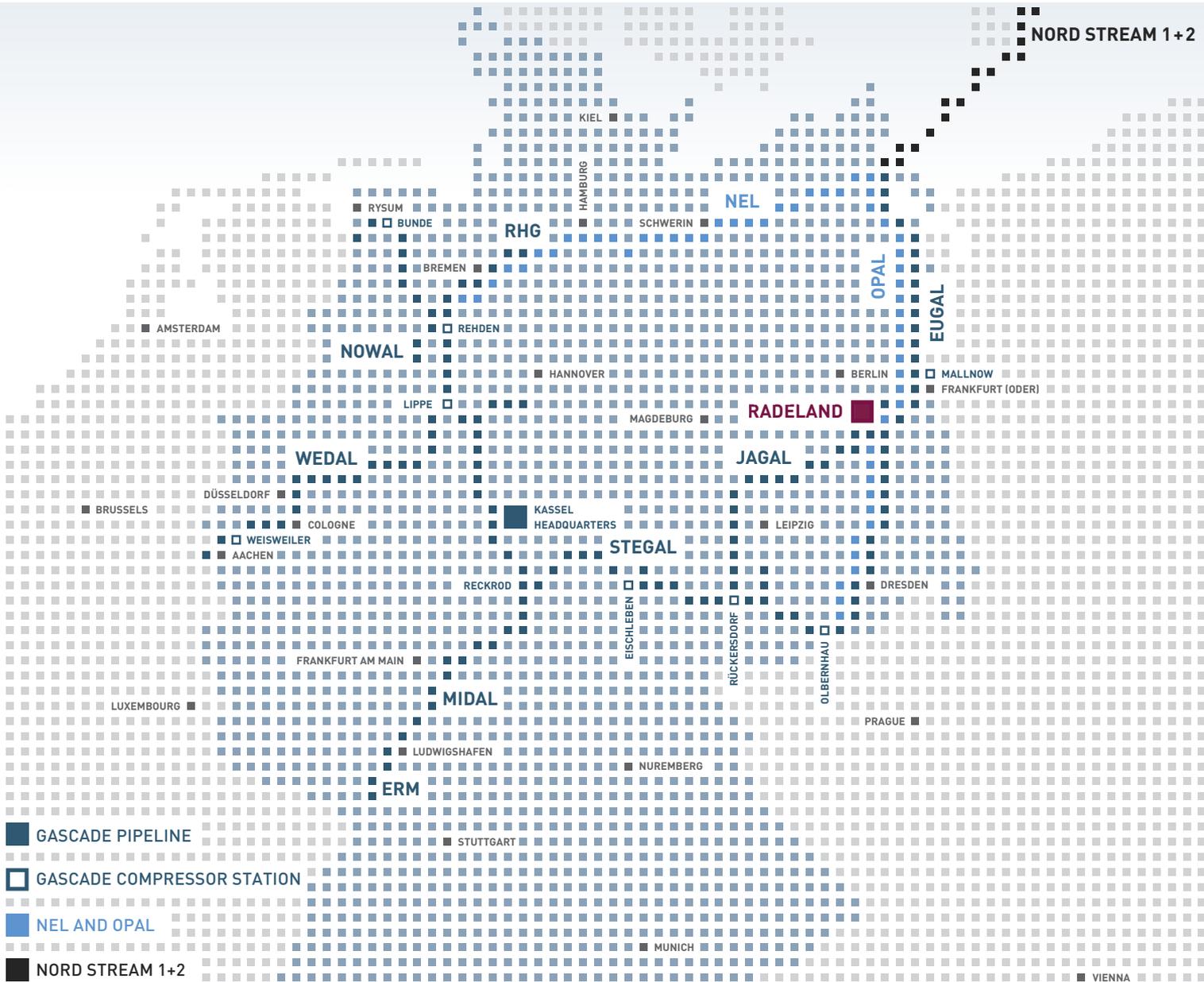


- 1 Operations building
- 2 Workshop
- 3 Gas coolers
- 4 Compressor buildings
- 5 Fuel gas conditioning
- 6 Intake filters
- 7 Gas pressure control and measurement system
- 8 Boiler house
- 9 Warehouse

TECHNICAL DATA

Number of compressors	3
Compressor output	66.3 megawatts (3 x 22.1 MW)
Type of drive	Solar Titan 250 gas turbine
Max. operating pressure	100 bar
Capacity (m ³ /h at normal conditions)	5.25 million
Commissioned in	April 2021

GASCADE'S PIPELINE NETWORK



CONTACT

GASCADE Gastransport GmbH

Headquarters

Kölnische Straße 108-112

34119 Kassel, Germany

Phone +49 561 934 0

Fax +49 561 934 1208

Radeland compressor station

An der Birkenpühlheide 12

15837 Baruth / Mark, Germany

Phone +49 33704 68988 1701

www.gascade.de