

GASCADE

NEL

OPAL

GREIFSWALD LANDING STATION



GAS FOR EUROPE



On the path to climate-neutral supply with renewable energies, the gas market is changing: Declining natural gas production within Europe, the diversification of supply sources, and the development of new sources such as hydrogen and climate-neutral gases are issues that also concern us. In line with the climate targets, we are already developing approaches to make our pipeline network in the middle of Europe fit for the energy future. We take natural gas and climate-neutral gases to where they are needed. Our system receives the gas from transit pipelines at Germany's borders and transports it reliably to consumers in Germany and Europe. OPAL Gastransport GmbH & Co. KG and NEL Gastransport GmbH make a significant contribution to security of supply, both now and in the future.

Receiving and distributing

The Greifswald landing station plays an essential role here, since it connects Nord Stream 1 with the two connecting European pipelines OPAL (Baltic Sea Pipeline Link) and NEL (Northern European Gas Pipeline), which transport the gas to German consumers and into the European transit network.

PRESSURIZING GAS



Well positioned with four owners

Together with its partners – Lubmin Brandov Gastransport GmbH (LBTG), Gasunie Ostseeanbindungsleitung GmbH (GOAL) and Fluxys Deutschland GmbH – GASCADE Gastransport GmbH strengthens supply security in Europe through the landing station. As operator of this complex station, GASCADE provides a highly qualified and dedicated team with many years' experience in the gas transport sector. The employees ensure that everything runs smoothly across the entire site and are also responsible for maintaining and servicing the station.

When the gas arrives in Lubmin, it has traveled an impressive 1,200 kilometers through the Baltic Sea. However, the pressure is high, reaching up to 180 bar – too high for the German network, which is designed for a maximum pressure of 100 bar. To be able to transport the gas onward, this problem needs to be solved: The gas needs to expand, which is exactly what the landing station does.

GREIFSWALD LANDING STATION



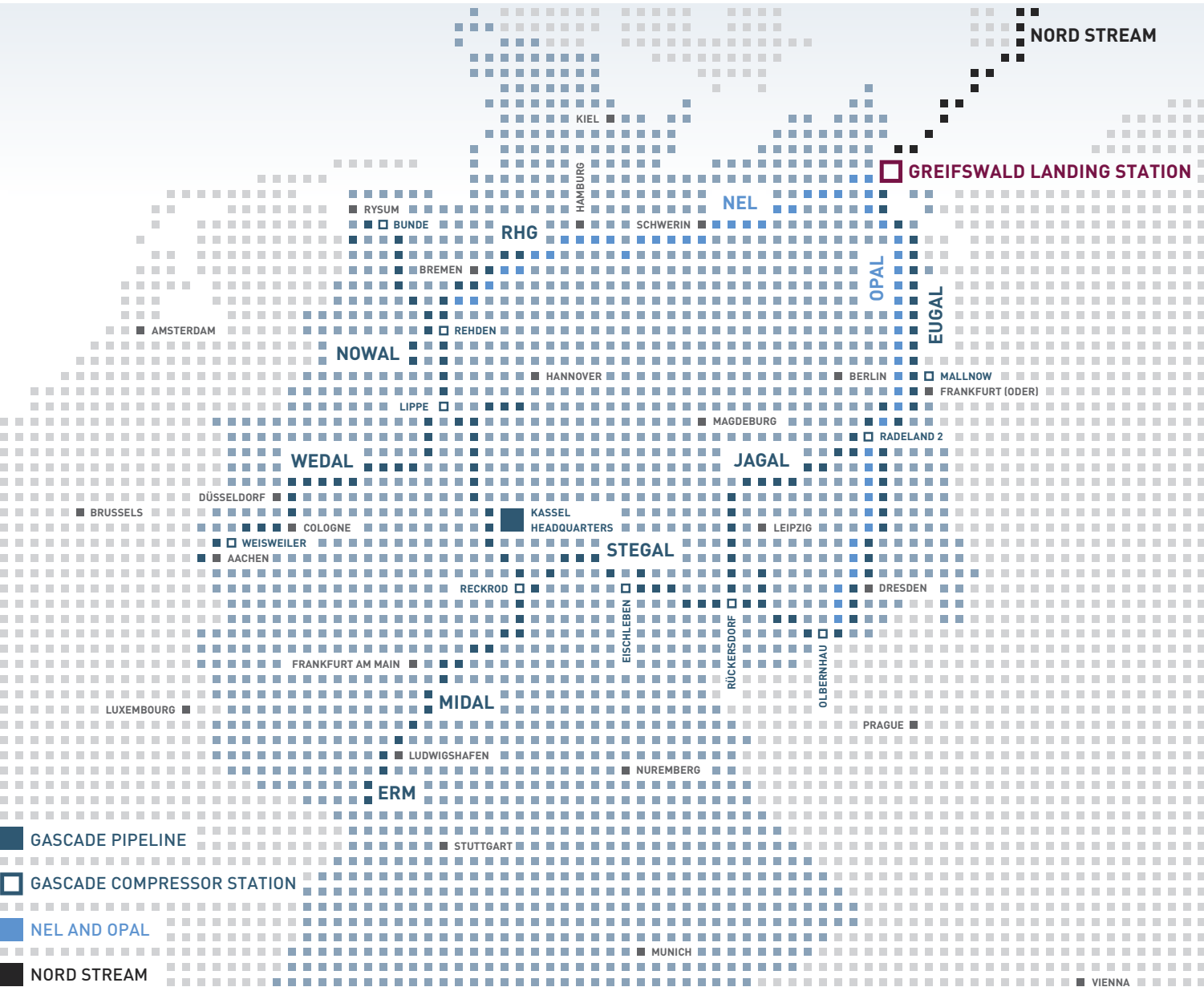
The station comprises two sections: an offshore section for the incoming Baltic Sea pipeline and an onshore section where the two downstream pipelines OPAL and NEL are located. The onshore section is divided into a 180 bar and a 105 bar section. The 180 bar area has filters, pre-heaters, and control valves. Mainly measuring and control systems operate in the 105 bar area.

The gas flows through the offshore landing section into the 180 bar section, where it is freed from liquid droplets and dust particles. It then flows into the pre-heating area, since the gas cools rapidly during expansion, even reaching sub-zero temperatures, which means it could freeze the fittings, for example. To prevent this kind of damage, the gas is heated up: Water heated in flame tube boilers or in the combined heat and power generation system flows into tube heat exchangers, in which the gas is brought to the right temperature. Only then can the gas be expanded safely, and the gas flow is now regulated to 100 bar.

In a final step, the measuring systems in the 105 bar section check the quantity, composition and quality of the gas and record this information. The gas flows through OPAL or NEL to its intended destinations.



GASCADE'S PIPELINE NETWORK



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