

Refueling in the **partner** network

CLIMATE PROTECTION NOW!

Refueling in the **partner** network

Alternoil is a growth-oriented and innovative company specialising in the establishment of alternative fuels for heavy goods transport.

We are your partner in the changeover to clean and advanced fuels.



- ♦ CONSULTING
- ♦ LNG LOGISTICS
- ♦ LNG FILLING STATIONS
- ♦ MONITORING 24/7
- ♦ MAINTENANCE & SERVICING

ABOUT OUR SERVICES

We are pioneers in the field of alternative fuels

We pursue a holistic concept, which includes the planning, construction, smooth operation and maintenance of LNG stations and the supply of gas.



LNG FILLING STATIONS

For the professional construction and handling of an LNG filling station we offer the complete takeover of project management, planning, approval and commissioning.

After successful commissioning, our professional service team ensures 24-hour maintenance, monitoring and driver training.

An established NOC (Network Operation Centre) supports drivers 24/7 when refuelling with LNG, e.g. through training, first level support or the search for alternative filling stations.

RENEWABLE FUELS

In addition to establishing LNG and building a powerful and reliable LNG network, we are focusing on establishing even more climate-friendly fuels on the market in the short term.

We are thus investing in the timely availability of renewable Bio LNG and eLNG, which significantly reduce harmful emissions for heavy goods transport.

SUSTAINABLE LNG LOGISTICS

With the help of our optimised intermodal logistics, we ensure the permanent availability of cold and high-quality LNG at all our locations.

We can supply LNG to industrial applications, ships or external filling stations, starting from a weekly purchase quantity of 4 tons.

Due to our LNG depots maintained throughout Germany, we ensure fast deliveries.

LNG STATIONS IN THE ALTERNOIL SERVICE STATION NETWORK

Key



LNG stations opened



LNG stations under construction



LNG service centre



LNG buffer storage

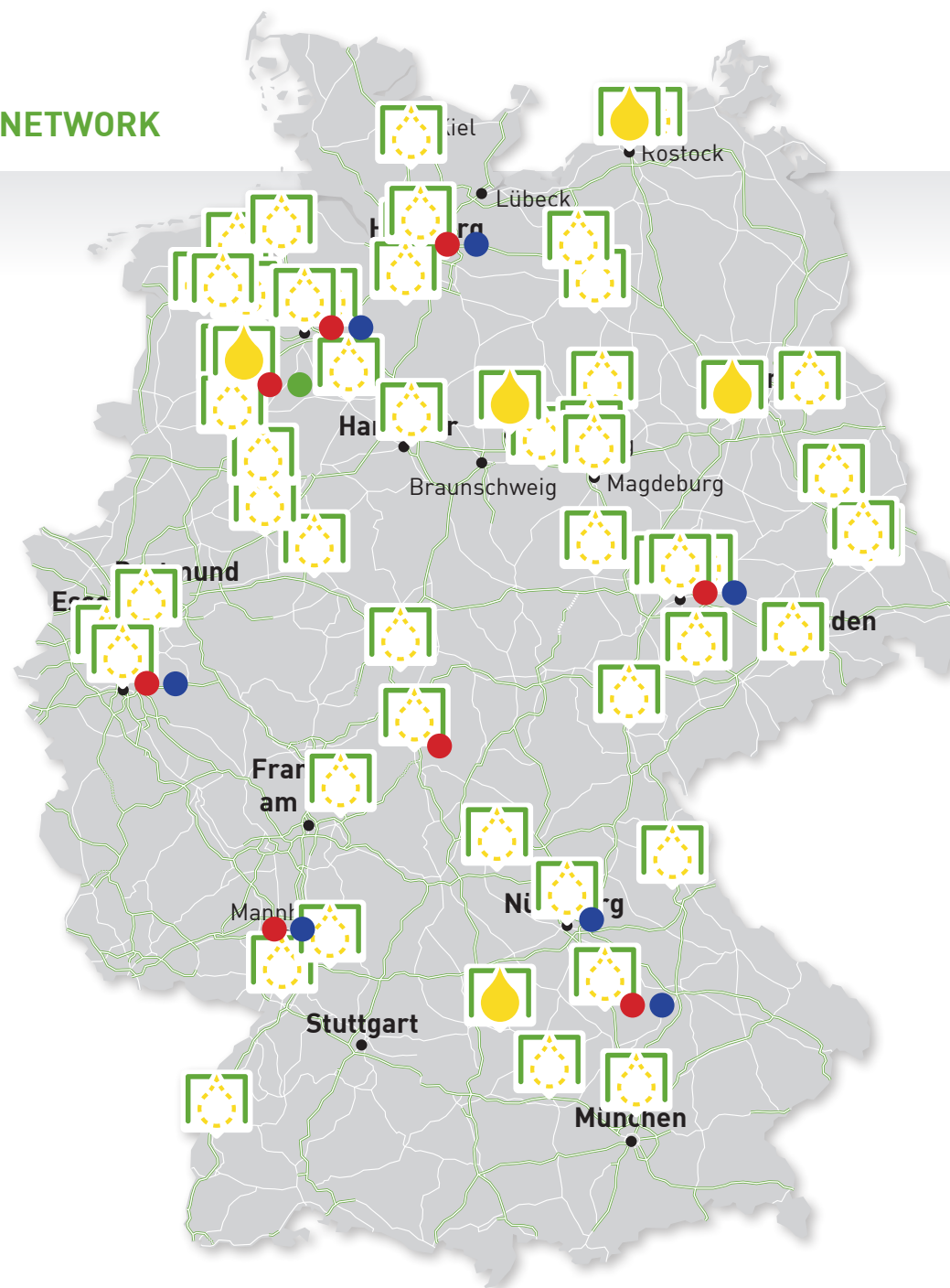


NOC (Network Operation Centre) 24/7

See also LNG stations on **page 5**.

The current list of stations can be found on our website: **www.alternoil.de**

* Depending on requirements and priorities, the construction and project periods can vary.
* If you have your own natural gas fleet and are interested in an XS Station, please contact us.



LNG STATIONS IN THE ALTERNOIL SERVICE STATION NETWORK

| POSTCODE | CITY, ADDRESS | STATUS | OPENED | |
|----------|-------------------------------|-------------------------------|-------------------------|----|
| 49456 | Bakum, Rudolf-Diesel-Straße 1 | In operation | Opened | ●● |
| 38444 | Wolfsburg, Wolfsacker 4 | In operation | Opened | |
| 86720 | Nördlingen, Markham Straße 2 | In operation | Opened | |
| 14478 | Potsdam, Verkehrshof 6 | In operation | Opened | |
| 18146 | Rostock, Up de Schnur 1 | In operation | Opened | |
| 90451 | Nürnberg Mühlheimer Straße 17 | In operation | Opened | ● |
| 85386 | Eching | Under construction | 2nd quarter of 2020 | |
| 03222 | Lübbenau / Spreewald | | 2nd quarter of 2020 | |
| 36093 | Fulda | Under construction | 3rd quarter of 2020 | ● |
| 28197 | Bremen | Under construction | 3rd quarter of 2020 | ●● |
| 21129 | Hamburg | Under construction | 3rd quarter of 2020 | ●● |
| 50997 | Köln | Under construction | 3rd quarter of 2020 | ●● |
| 97469 | Gochsheim | In planning | 3rd quarter of 2020 | |
| 02979 | Elsterheide | | 3rd quarter of 2020 | |
| 49328 | Melle | BlmSchG application submitted | 3rd/4th quarter of 2020 | |
| 29690 | Buchholz | Under construction | 3rd/4th quarter of 2020 | |
| 77955 | Ettenheim | BlmSchG application submitted | 3rd/4th quarter of 2020 | |
| 91171 | Greding | BlmSchG application submitted | 3rd/4th quarter of 2020 | ●● |
| 33378 | Rheda-Wiedenbrück | | 4th quarter of 2020 | |
| 34593 | Knüllwald | | 4th quarter of 2020 | |
| 39179 | Barleben | | 4th quarter of 2020 | |
| 68766 | Hockenheim | In planning | 4th quarter of 2020 | |
| 23570 | Lübeck | BlmSchG application submitted | 4th quarter of 2020 | |
| 24539 | Neumünster | BlmSchG application submitted | 4th quarter of 2020 | |
| 71691 | Freiberg | In planning | 4th quarter of 2020 | |
| 23858 | Lübeck | BlmSchG application submitted | 4th quarter of 2020 | |
| 42853 | Remscheid | BlmSchG application submitted | 4th quarter of 2020 | |
| 49681 | Garrel | BlmSchG application submitted | 4th quarter of 2020 | |
| 26135 | Oldenburg | BlmSchG application submitted | 4th quarter of 2020 | |
| 29614 | Soltau | BlmSchG application submitted | 4th quarter of 2020 | |
| 49492 | Velpe | In planning | 1st quarter of 2021 | |
| 47059 | Duisburg | In planning | 1st quarter of 2021 | |
| 33106 | Paderborn | In planning | 1st quarter of 2021 | |

| POSTCODE | CITY, ADDRESS | STATUS | OPENED | |
|----------|----------------------|-------------------------------|---------------------|----|
| 47166 | Duisburg | In planning | 1st quarter of 2021 | |
| 49434 | Neuenkirchen-Vörden | BlmSchG application submitted | 1st quarter of 2021 | |
| 28219 | Bremen | In planning | 1st quarter of 2021 | ●● |
| 19306 | Neustadt-Glewe | In planning | 1st quarter of 2021 | |
| 39126 | Magdeburg | In planning | 1st quarter of 2021 | |
| 41450 | Dormagen | In planning | 1st quarter of 2021 | |
| 15537 | Grünheide | In planning | 1st quarter of 2021 | |
| 04158 | Leipzig | In planning | 1st quarter of 2021 | ●● |
| 27572 | Bremerhaven | In planning | 1st quarter of 2021 | |
| 18146 | Rostock | In planning | 1st quarter of 2021 | |
| 03222 | Lübbenau | In planning | 1st quarter of 2021 | |
| 92706 | Luhe Wildenau | In planning | 1st quarter of 2021 | |
| 34593 | Knüllwald | In planning | 1st quarter of 2021 | |
| 19357 | Karstädt | In planning | 1st quarter of 2021 | |
| 39517 | Lüderitz | In planning | 1st quarter of 2021 | |
| 03130 | Spremberg | In planning | 1st quarter of 2021 | |
| 26689 | Apen | In planning | 1st quarter of 2021 | |
| 21629 | Neu Wulmstorf | In planning | 1st quarter of 2021 | |
| 06295 | Lutherstadt Eisleben | In planning | 1st quarter of 2021 | |
| 26316 | Varel | In planning | 1st quarter of 2021 | |
| 38350 | Helmstedt | In planning | 1st quarter of 2021 | |
| 30559 | Anderten | In planning | 1st quarter of 2021 | |
| 30582 | Nienburg | In planning | 1st quarter of 2021 | |
| 07907 | Schleiz | | 1st quarter of 2021 | |
| 04435 | Schkeuditz / Leipzig | | 2nd quarter of 2021 | |
| 04356 | Leipzig | In planning | 2021 | |
| 26655 | Westerstede | In planning | 2021 | |
| 76187 | Karlsruhe | In planning | 2021 | |
| 86156 | Gersthofen | In planning | 2021 | |
| 08393 | Meerane | In planning | 2021 | |
| 63526 | Erlensee | In planning | 2021 | |
| 74889 | Sinsheim | In Planung | 2021 | |
| 67096 | Ludwigshafen | | | ●● |

● LNG service centre

● LNG buffer storage

● NOC (Network Operation Centre) 24 / 7



renewable energy for vehicles

We pursue the goal of significantly minimising the environmental impact of heavy goods transport. Sustainable aspects take top priority in our supply and production chain for liquid natural gas and gas from renewable energies and biological waste processes.



LIQUID DEEP-FROZEN NATURAL GAS

This alternative and environmentally friendly fuel significantly reduces the emission of harmful emissions. In addition to the reduction of 15% CO₂, emissions such as nitrogen oxides and fine dust are reduced almost completely. With our high quality natural gas you drive cleaner and more economically.

RENEWABLE NATURAL GAS FROM BIOLOGICAL WASTE PROCESSES

The completely renewable natural gas offers a CO₂ advantage of up to 85%. To create this advanced fuel, biological waste and agricultural residues are reused and refined into biogas with the help of the latest technologies.

RENEWABLE NATURAL GAS FROM GREEN ELECTRICITY

With the up to 90% CO₂-free liquid synthetic gas, your driving is even more environmentally friendly. Renewable gas is produced from surplus, renewable electricity and CO₂ using PtG technology.

LNG XL station

EQUIPMENT FEATURES

- ♦ **70m³ super vacuum-insulated tank**
 - Optimal protection against heat input
- ♦ **Vacuum-insulated pipelines**
 - Optimal protection against heat input
- ♦ **2 Vanzetti pumps** - High performance pumps for cryogenic liquids
- ♦ **Herose valves** - Safety and control valves
- ♦ **Nitrogen cooling** - BOG management
- ♦ **Siemens PLC control**- For intelligent and precise control of the station
- ♦ **Scada system** - for 24/7 monitoring of the plant
- ♦ **4 dispensers** - to ensure optimum availability of the station
- ♦ **ITC, individual delivery temperature (inline saturation)**
 - for Iveco & Scania -129°C | Volvo -158°C
- ♦ **Hectronic card reader**
- ♦ **Monitor** – With self-explanatory training video for truck drivers (regardless of the language)

AREAS OF APPLICATION

Our XL-format LNG filling stations are particularly suitable for highly frequented locations and traffic junctions.

With up to 4 dispensers and on 5 tank lanes, a fast fuelling process is possible without long waiting times.

The installation of 2 cryogenic pump systems permanently guarantees the reliability of the supply.



- ♦ **HIGH-FREQUENCY LOCATIONS**
- ♦ **REDUNDANT SYSTEM**
- ♦ **QUICK FUELLING**

Green Energy station

EQUIPMENT FEATURES

- ♦ **30m³ super vacuum-insulated tank**
 - Optimal protection against heat input
- ♦ **Vacuum-insulated pipelines**
 - Optimal protection against heat input
- ♦ **Cryostar pump** - High-performance pump for cryogenic liquids
- ♦ **Herose valves** - Safety and control valves
- ♦ **Nitrogen cooling** - BOG management
- ♦ **Siemens PLC control** - For intelligent and precise control of the station
- ♦ **Green Scada System** – for 24/7 monitoring of the plant
- ♦ **2 dispensers** - to ensure the availability of the station if a component develops a fault
- ♦ **2 Emerson LNG flowmeters per dispenser** – For measuring the flow rate
- ♦ **ITC, individual delivery temperature (inline saturation)**
 - for Iveco & Scania -129°C | Volvo -158°C
- ♦ **Hectronic card reader**
- ♦ **Monitor** – With self-explanatory training video for truck drivers (regardless of the language)

FLEXIBLE USE

Due to its compact and modular design, this station can be used flexibly and is ideal for locations with limited space.

We are therefore in a position to enable rapid installation and commissioning within a very short time.



FILLING STATION/COMPANY PREMISES

Due to its compact design, our Green Energy station is ideal for supplying your filling station/fleet with LNG. In combination with our scalable and intermodal logistics, we can supply you with quantities from 4 tons per week.

- ♦ **SMALL FOOTPRINT**
- ♦ **QUICK INSTALLATION**
- ♦ **MODULAR CONSTRUCTION**
- ♦ **FILLING STATION/COMPANY PREMISES**

STATIONS & ACCESSORIES

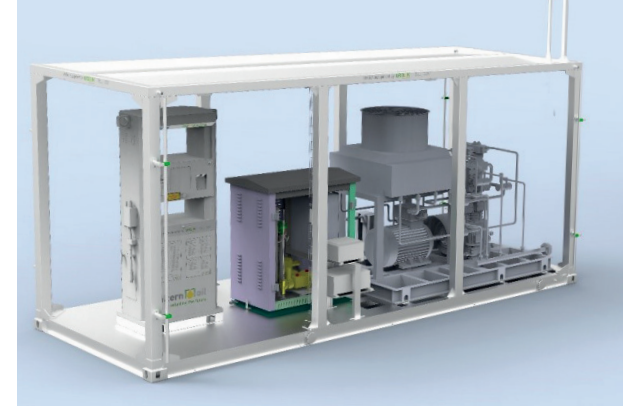
LNG XL station



LNG XS station



CNG station



LNG container



LNG micro-fueller



LNG regasification



REFERENCES & PROJECTS

Bakum A1 | LNG tank facility in XL format



Fulda A7



Hamburg Port



Bremen Logistics HUB



Cologne Logistics HUB

