



TRANS AUSTRIA GASLEITUNG GMBH



2014 TAG IIO certification

2009 Compression Station Weitendorf

2008 Compression Station Eggendorf

2001 TAG Loop 2

1988 TAG II

1974 TAG I

TAG

Main artery

Trans Austria Gasleitung: for Austria and Europe

Trans Austria Gasleitung GmbH is the owner of the namesake Trans Austria Gasleitung (TAG) pipeline system and has been certified as an Independent Transmission Operator (ITO) under a decree issued by the Austrian regulatory authority Energie-Control Austria.

The Trans Austria Gasleitung pipeline system runs from Baumgarten in Austria to Tarvisio in Italy over a distance of about 380 km and has a transportation capacity towards Italy of about 30 billion cubic meters of gas per annum. Running through Austria from the Slovak border to the Italian border, the TAG pipeline system comprises 1,140 km of high pressure pipelines. Along its Austrian route, the pipeline also supplies the gas demand of Lower Austria, Styria and Carinthia as well as transportation to Slovenia via the SOL pipeline.

The TAG pipeline has been in service since 1974. To increase pipeline capacity in line with expansions in the gas grid in the intervening years, TAG II was commissioned in 1988, followed by TAG Loop 2 in 2001. At last, the TAG Expansion project was completed, with entry in operation of the new compression station of Eggendorf in 2008 and Weitendorf in 2009.

Trans Austria Gasleitung GmbH is 84.47% owned by Snam S.p.A. of Italy and 15.53% owned by Gas Connect Austria GmbH of Austria.

The Management Board, nominated by the shareholders, is composed of two Managing Directors, who work together in order to ensure the successful operation of the company and the best outcome for all the stakeholders of the TAG pipeline.

Dott. Ing. Daniele Gamba was born in 1973 in Bergamo and studied Electrical Engineering at the University of Pavia. He has been Managing Director at TAG GmbH since 2018.

DI Dr. Rudolf Starzer was born in 1957 in Vienna and studied Technical Chemistry at the Technical University of Vienna. He has been Managing Director at TAG GmbH since 2004.



Rudolf Starzer
Managing Director



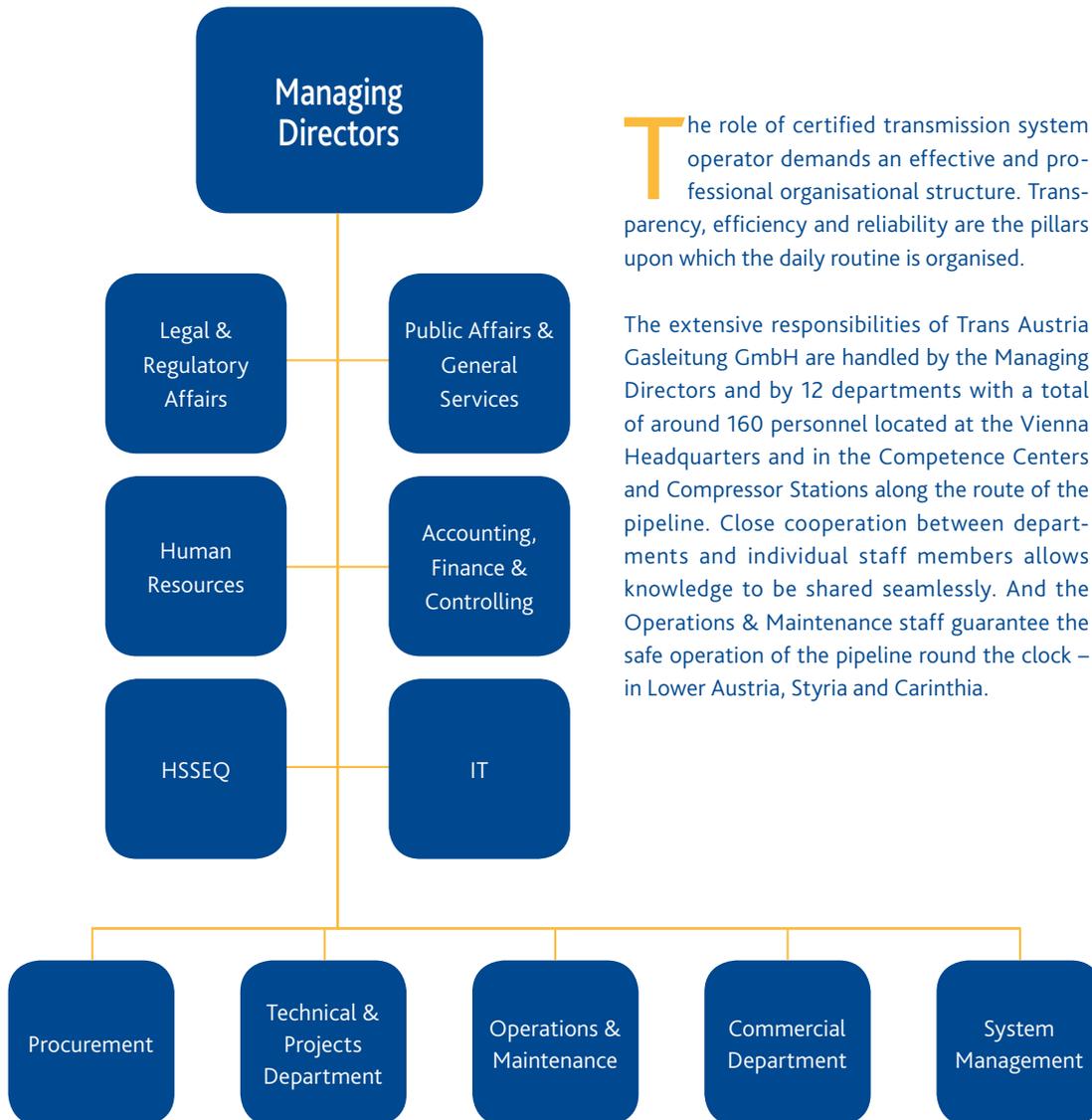
Daniele Gamba
Managing Director





Trans Austria Gasleitung

Professional



The role of certified transmission system operator demands an effective and professional organisational structure. Transparency, efficiency and reliability are the pillars upon which the daily routine is organised.

The extensive responsibilities of Trans Austria Gasleitung GmbH are handled by the Managing Directors and by 12 departments with a total of around 160 personnel located at the Vienna Headquarters and in the Competence Centers and Compressor Stations along the route of the pipeline. Close cooperation between departments and individual staff members allows knowledge to be shared seamlessly. And the Operations & Maintenance staff guarantee the safe operation of the pipeline round the clock – in Lower Austria, Styria and Carinthia.

Our principles

Mission statement

We live out our responsibility as an integral part of the European natural gas infrastructure by taking care of the secure and reliable energy transportation through Central Europe around the clock.

Our values

◦ Respect

We demand respect from ourselves and our counterparts. Appreciative cooperation builds the trust needed to create long-term partnerships.

◦ Responsibility

We take responsibility for ourselves and our environment. We act sustainably and reliably in order to protect the health of all involved parties and to guarantee the secure operation of our facilities.

◦ Competence

We work professionally and with dedication. We invest continuously in our know-how to ensure the quality and availability of our services for our customers.



COMPETENCE CENTER LOWER AUSTRIA

T +43 1 597 51 16 89100

Responsible for:

TAG ((Slowakian/Austrian border – Schäffernbach)

COMPETENCE CENTER STYRIA

T +43 1 597 51 16 89300

Responsible for:

TAG (Schäffernbach – Styria/Carinthia border)

SOL (TAG GmbH provides services to Gas Connect Austria GmbH for the SOL South-East pipeline)

COMPETENCE CENTER CARINTHIA

T +43 1 597 51 16 89500

Responsible for:

TAG (Styria/Carinthia border – Austrian/Italian border)

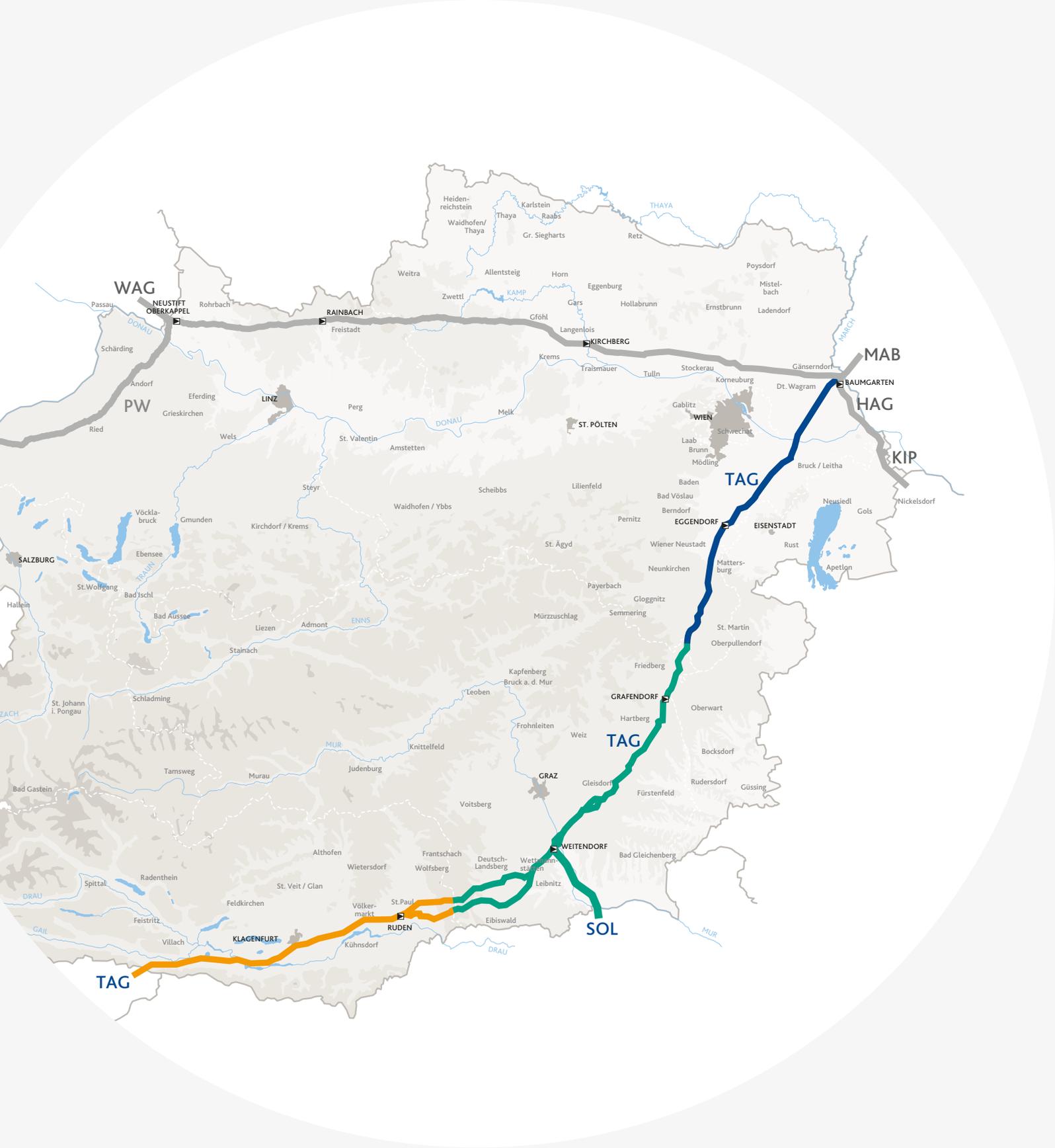
Across Austria

The TAG pipeline system runs from Baumgarten an der March by the Slovak-Austrian border to Arnoldstein at the Austrian-Italian border. It comprises three pipelines and five compressor stations. With 1,140 km of pipeline in total and covering a total length of around 380 km, it is the longest pipeline system in Austria. Pipeline diameter ranges between 36 and 42 inches, and the pipeline operates at pressures of up to 70 bar.

Gas turbines, installed in the compressor stations at Baumgarten, Eggendorf, Grafendorf, Weiten-dorf and Ruden, provide the energy needed to move the natural gas along the pipeline route. The total installed power is around 480 MW.



The pipeline system



WAG

NEUSTIFT OBERKAPPEL

RAINBACH

KIRCHBERG

MAB

BAUMGARTEN

HAG

KIP

PW

LINZ

TAG

SALZBURG

WIEN

EGGENDORF

EISENSTADT

TAG

GRAFENDORF

CRAZ

WEITENDORF

SOL

KLAGENFURT

RUDEN

TAG



TAG GmbH is part of the pan-European grid infrastructure

Austria plays a major role in ensuring the supply of natural gas to Europe. Its central location means that Austria's transmission systems are connected to a number of systems in neighbouring countries. The TAG GmbH transmission system is connected to the system of the Slovakian TSO eustream a.s. in the north-east and to the system of Italian TSO Snam Rete Gas in the south. The direction of flow is from the Slovak border to the Italian border. While TAG GmbH and Gas Connect Austria GmbH operate separate Austrian transmission systems, they cooperate and work closely, sharing services and infrastructure and enabling the efficient and reliable operation of the Austrian natural gas network.

At Trans Austria Gasleitung GmbH, the Commercial & Gas Measurement department looks after the marketing of transport capacities, while the commercial gas flow management for transport capacities sold and nominated is handled by the 24/7 Commercial Dispatching team in the System Management department.

The continuous monitoring and controlling of the pipeline system is carried out remotely by means of a complex SCADA (supervisory control and data acquisition) system by the control room of the Dispatching Center of Gas Connect Austria GmbH, under a mutual service agreement which includes other services in the area of operation

and maintenance. The control room, operating 24 hours a day all year round, ensures response to emergency calls and activation of on-call staff at the TAG GmbH Competence Centers.

The pipeline operated by TAG GmbH has a total of ten Gas Connect Austria GmbH breakout points serving the domestic grid, and branches off into the SOL pipeline, which is operated by Gas Connect Austria GmbH and supplies gas to Slovenia. The secure and continuous transportation of natural gas across Austria is not only important for our neighbours – domestic supplies to Lower Austria, Styria and Carinthia are also directly dependent on smooth operation of the Trans Austria Gasleitung pipeline.

Natural gas will be as essential tomorrow as it is today

As a European Transmission System Operator, TAG GmbH will continue to play a key role in the years ahead. Natural gas will continue to be vital for Europe. In homes, for power generation, and for industry, natural gas is difficult to replace. Natural gas also facilitates the use of renewable energies, which will become increasingly important. As a part of the Europe-wide transmission system infrastructure, TAG GmbH will continue to ensure availability of natural gas in years to come.

Wide-ranging

Safe operation

Safety first for staff, contractors, local residents and third parties

HSEQ stands for Health, Safety, Security, Environment & Quality, and it plays a key role both in our day-to-day operations and in our construction and other projects. HSEQ means taking responsibility for our employees as well as our contractors, local residents, third parties and the environment. It is about our primary objective: protecting the health of all those involved and ensuring the safe operation of the TAG pipeline. HSEQ means sustainability and reliability.

High health, safety and environmental standards are guaranteed

Trans Austria Gasleitung GmbH is mindful of its responsibilities. That means that it puts safety first – for employees, contractors, local residents and third parties. To guarantee high health, safety and environmental standards, TAG GmbH complies with applicable laws and technical rules. It also modernises and improves its facilities on an ongoing basis to ensure that they remain compliant with the latest environmental and process engineering standards.

Trans Austria Gasleitung GmbH staff work with dedication and professionalism. TAG GmbH invests in their knowledge and expertise on an ongoing basis to guarantee consistent quality and availability of the services it offers.

Trans Austria Gasleitung GmbH takes a proactive and conscientious approach to its work, helping secure the supply of natural gas.

Around 70 staff members work on site along the pipeline system to ensure day-to-day activities run smoothly. This includes operation of the pipeline and ongoing maintenance of the pipeline and compressor stations.

The pipeline system is inspected at regular intervals

Servicing and maintenance work on Trans Austria Gasleitung GmbH facilities is carried out systematically and in accordance with defined procedures. The annual pipeline and compressor station maintenance programme is reviewed and adjusted regularly, and maintenance work is carried out on specified dates. Regular internal inspections of the pipeline are also required. Pigging and ultrasound inspections are planned down to the last detail to keep the impact on transport capacity to a minimum.





TAG GmbH is a committed contributor to forward-looking projects

Trans Austria Gasleitung GmbH is a reliable partner in natural gas infrastructure. All TAG GmbH pipelines carry natural gas safely and reliably. To ensure that this remains the case, Trans Austria Gasleitung GmbH continuously initiates new projects with the aim of keeping the pipeline system up to date.

NOxER II project

A major milestone was the implementation of the NOxER II project. In the course of the project, gas-powered compressor units of the first generation were replaced by state-of-the-art electrical compressor units. In addition to emission-free operation and the associated savings in CO₂ certification, the new machines require considerably less maintenance and at the same time are more reliable.

Measures to safeguard security of supply

Thanks to its strategic location in central Europe, Trans Austria Gasleitung GmbH is an important partner to Transmission System Operators in neighbouring countries. Together with adjacent Transmission System Operators, TAG GmbH is working on innovative measures to increase capacity with the objective of developing the

transmission system in central Europe and ensuring security of supply today and in the future.

National and European planning processes

TAG GmbH is also an active participant in national and European planning processes relating to the development of the transmission system. At national level, relevant projects are included in the Austrian Coordinated Network Development Plan and submitted to the regulatory authority Energie-Control Austria for approval. At European level, relevant TAG projects are submitted to ENTSOG (European Network of Transmission System Operators for Gas) for inclusion in the Ten Year Network Development Plan (TYNDP) and are also reflected in the appropriate Gas Regional Investment Plans (GRIPS). This means that TAG GmbH's projects can be developed taking the wider European context into account.

Reliable and innovative

4 Austrian Federal States – 90 municipalities – 10,000 land parcels

This is the route taken by the natural gas pipelines of Trans Austria Gasleitung GmbH.

The pipelines run underground through a clearly defined area of each of these 10,000 land parcels in eastern and south-eastern Austria. Access to these areas is secured by easements in favour of Trans Austria Gasleitung GmbH.

In practical terms this requires TAG GmbH to stay in constant contact with more than 4,000 landowners and with municipalities, district authorities and regional governments in Lower Austria, Burgenland, Styria and Carinthia. Liaison with federal ministries and the national regulatory authority Energie-Control Austria is also required.

Only through constant contact with these many and varied individuals and bodies can the smooth and safe operation of the TAG high-pressure pipeline be guaranteed. Contact means sharing all essential information and discussing and resolving the concerns of all parties.

Pipeline safety is our highest priority. It is crucial for the population as a whole – and of course for our stakeholders and employees. Section 133 of the Austrian Natural Gas Act (*Gaswirt-*

schaftsgesetz) requires TAG GmbH, as owner of the pipeline, to operate it in accordance with the applicable "technical rules". These are laid down by the Austrian Association for Gas and Water (*Österreichische Vereinigung für das Gas- und Wasserfach, OVGW*), and require a safety corridor along the pipeline on which no construction is permitted. To secure this safety corridor TAG GmbH has reached agreement regarding easements with the relevant landowners. It is essential that the TAG GmbH pipeline is taken into account already at the stage of local planning, i.e. in applying the statutory provisions adopting and approving land-use plans.

TAG GmbH's gas pipelines run underground and are signposted at certain points by pipeline markers. Naturally, TAG GmbH is happy to provide precise information on the location of the pipelines and easement strips. TAG GmbH must be informed and planning information must be provided in advance of any digging, excavation, civil engineering or other construction works planned in the vicinity of the TAG pipelines.

Contact geodata@taggmbh.at.





TAG GmbH in the European context

PRISMA

Trans Austria Gasleitung GmbH is a founder member and co-owner of PRISMA European Capacity Platform GmbH. Established in 2013, PRISMA implemented the European Commission's Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems ahead of schedule. A total of 37 transmission system operators from 16 countries offer harmonised capacity products on the PRISMA common auction platform. PRISMA represents a further step towards completion of the integrated European gas market. Trans Austria Gasleitung GmbH is actively involved in ongoing development of the platform.



ENTSOG

At European level, Trans Austria Gasleitung GmbH is a member of ENTSOG (the European Network of Transmission System Operators for Gas) and contributes its expertise to working groups on various aspects of the internal energy market. The role of ENTSOG is to facilitate and improve collaboration between transmission system operators across Europe. It works to ensure efficient, coordinated operation and

technical development of the European natural gas grid.



Austrian Association of Gas- and District Heating Supply Companies

Trans Austria Gasleitung GmbH has an interest in all gas-related matters. As a member of the Association of Gas- and District Heating Supply Companies (*Fachverband der Gas- und Wärmeversorgungsunternehmen, FGW*), Trans Austria Gasleitung GmbH is able comment on current issues in the Austrian gas sector. The FGW is an independent statutory representative body for all gas and district heating supply companies in Austria and works to promote the economical, safe and environmentally friendly use of natural gas, biogas and district heating and cooling in Austria.



Natural gas: an indispensable partner

From the kitchen cooker to renewable energies: natural gas is everywhere

Natural gas is easy to use, inexpensive and clean: it would be hard to imagine our homes without it. Natural gas also guarantees security of supply.

Natural gas is significantly more economical to purchase and use than other energy sources. Households can reduce natural gas consumption by using more efficient appliances. This is environmentally friendly as well as cost-effective: natural gas produces no particulate matter, low levels of CO₂, and practically no other atmospheric pollutants.

Guaranteed supply

Only with excellent infrastructure can security of supply be guaranteed. In Austria there has been heavy investment in this area over recent decades. Natural gas can be supplied to every Austrian customer at any time via the 43,100 km gas grid.

There is the possibility for natural gas to be used to store electricity: when winds are high and the sun is shining, more electricity is often generated than actually needed. Using the power-to-gas method, however, surplus power generated by wind farms and hydroelectric and solar power plants could be converted into natural gas.

Biogas is produced from biomass from organic waste, and can be injected in the natural gas grid after several processing steps or used for the production of electricity. Biogas has a significant potential for growth in Austria due to the large number of agricultural businesses and farmers located there.

Energy to meet fluctuating demand: energy demand fluctuates enormously, both during the course of the day and seasonally. Though we need more energy in winter than in summer, renewable energies cannot respond accordingly. Natural gas can “step in” when needed to provide a permanent, stable source of energy.

Potential of today's gas infrastructure

Austria has one of the most modern natural gas grids anywhere. Over 75 terawatt-hours (TWh) of gas annually are supplied to consumers over pipelines with a total length of 43,100 km. Austria also has eight pore storage facilities. These were used to store 83 billion kWh of gas in 2015 – 75% of Austria's annual gas consumption.

More fascinating information about natural gas is available from:

www.initiative-gas.at (in German)

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