



Media Release

Volkswagen Group and industrial partners from the energy industry continue to expand CNG mobility

- 3rd CNG Mobility Days underpin the potential of CNG
- Product range with currently 19 passenger-car models
- CNG is efficient, cost-effective, proven over many years, immediately available and reduces CO₂ emissions
- Bio-CNG for climate-neutral mobility is moving forward
- Application for trucks and buses is becoming increasingly feasible

Berlin/Wolfsburg, 25 June 2019 – The Volkswagen Group and its industrial partners from the areas of gas supply, grid and filling-station operation at the 3rd CNG Mobility Days in Berlin (25/26 June 2019) provide an overview of the current situation and the development potential of CNG. At the same time, the brands of the Volkswagen Group are presenting their latest models in the passenger-car, truck and bus segments developed for operation on CNG.

The Volkswagen Group and its brands – in parallel with ongoing progress in electrification for the fleet – are continuing to back CNG (Compressed Natural Gas) as an alternative on the road route to decarbonisation of transport. With this aim in mind, the product range has once again undergone fundamental revision and expansion. The Volkswagen Group currently offers the biggest selection by far of CNG vehicles out of all the manufacturers. At the Annual General Meeting in mid-May, the Chief Executive Officer of Volkswagen AG announced that CNG would continue to play a major role for the Group into the future: “The new Golf will also be launched in the marketplace as a CNG model. We are the global market leader for gas-powered drive units and we are better positioned than the competition. We will also continue to expand and improve this technology.”



The joint commitment within the industrial consortium CNG Mobility represents a bundling of forces from the brands of the Volkswagen Group and the partner companies from the energy industry, gas supply and filling-station operation with the objective of reducing the emissions caused by road traffic immediately and tangibly. The companies involved are contributing their individual specific capabilities, in-depth knowledge and technology expertise for the expansion and spread of CNG mobility.

Since the start of the cross-brand campaign in spring 2017 and the two CNG Mobility Days after the first event, the campaign alliance has significantly enhanced the status of CNG for individual mobility in Germany. As a result and particularly thanks to the appeal and diversity of the burgeoning model range, on the German automobile market in 2018 the sales figures of CNG vehicles in the passenger-car segment could be almost doubled compared with the previous year.

The use of CNG as a fuel for automobiles makes a directly effective contribution to the reduction of emissions and it is a cost-effective alternative to petrol and diesel. “Volkswagen is committed to the Paris Climate Agreement. CNG plays an important role in the case of alternative drives that are deployed alongside the electrification offensive being carried out by the Group. CNG has been adequately tested, it is immediately available, efficient and cost-effective. And there is no prospect of driving bans being introduced for CNG passenger cars in inner cities. If you are using Bio-CNG, vehicles are virtually climate neutral when they are operated,” explained Stephen Neumann, Head of CNG Mobility at the Volkswagen Group. He added: “Bio-CNG highlights the environmental and future-proof character of CNG as a source of energy for mobility.”

CNG model range is becoming increasingly attractive

The commitment to CNG as an alternative drive is also reflected in an increasingly broader and more attractive model range of the individual Group brands. The offer ranges from the small-car segment through the compact class with VW, Audi, SEAT and ŠKODA, to the premium models in the business segment of Audi and light commercial vehicles. The latest vehicle to be launched in the marketplace is the SEAT Arona 1.0 TGI, the first crossover



SUV with a CNG drive. Two other models with CNG power units are scheduled to follow when the ŠKODA Scala soon comes onto the market after celebrating its world premiere as a CNG variant at the CNG Mobility Days, and the ŠKODA Kamiq with a CNG drive. Also the new generation of the bestseller VW Golf will be launched as a CNG variant. The Volkswagen Group will then have the most comprehensive and diverse range of CNG vehicles in the world.

Polo TGI: the cleanest vehicle in 2019

The latest Ecotest by German Automobile Club ADAC carried out on the VW Polo TGI proved just how fuel-efficient, clean, cost-effective and attractive CNG models can be. It was one of seven models with the highest rating of five stars and the only vehicle with an internal combustion engine in this group. The score of 95 points was also the best result so far in the year 2019. Exactly ten years ago, a CNG variant in the form of the VW Passat TSI EcoFuel obtained the maximum rating of five stars in this test for the first time.

Outstanding Audi TFSI engine for even more driving fun

The new 2.0 TFSI engine from Audi highlights the fact that a CNG model can also put in a sporty and dynamic performance. This vehicle has just received the “International Engine of the Year” Award in the category 150 to 250 hp – a power unit that was designed for CNG operation right from the get-go. It is equally ideal for longitudinal installation in the bigger Audi models and for transverse mounting in the models of the Group brands Volkswagen, ŠKODA and SEAT.

The current CNG models of the Volkswagen Group in detail

Volkswagen

Low-emission mobility concepts have a high level of priority for Volkswagen. Apart from electric and hybrid vehicles, the brand supplies four models powered by natural gas.

VW eco up! and VW eco load up!

Entry-level vehicles are the **VW eco up!** and the **VW eco load up!**. The two Volkswagen automobiles each generate 50 kW (68 hp) and they are in the best energy efficiency class of



A+ with CNG consumption of just 3.0 – 2.9 kg of natural gas for 100 km and correspondingly low CO₂ emissions of 82 – 81 g/km (fuel consumption and CO₂ emissions combined in conformity with NECD).

VW Polo TGI

The **VW Polo TGI** (66 kW/90 hp) uses the high energy density of CNG for particularly efficient and cost-effective mobility (fuel consumption combined in conformity with NECD: 3.5 – 3.3 kg/100 km; CO₂ emissions combined: 93 – 88 g/100 km). The petrol tank was significantly reduced in the new model, an additional third CNG cannister was installed in the vehicle and this therefore effectively developed a monovalent CNG drive. The additional tank has a capacity of 16.5 litres and expands the storage of natural gas to a total of 91.5 litres or 13.8 kg. This means that the Polo can drive for a distance of up to 410 kilometres powered by CNG.

VW Golf TGI

The **VW Golf TGI** (fuel consumption combined in conformity with NECD: 3.6 – 3.5 kg/100 km; CO₂ emissions combined: 98 - 95 g/100 km) is powered by a new, efficient and environment-friendly 1.5 litre TGI four-cylinder engine generating 96 kW (130 hp) to provide more driving fun. An exhaust turbocharger with variable turbine geometry increases the boost pressure and injects more air into the cylinders. This means that the 1.5 litre TGI engine can provide powerful acceleration from low revs at any time. A third natural-gas tank with a volume of 23 litres increases the overall CNG tank volume to 115 litres or 17.3 kg, which facilitates a range of up to 490 kilometres. Even in the more stringent WLTP cycle, the Golf TGI still continued to have a range of up to 420 kilometres with pure CNG operation. Furthermore, the petrol reserve of nine litres is still available for up to 160 kilometres.

VW Golf Variant TGI

The new **VW Golf Variant TGI** (fuel consumption combined in conformity with NECD: 3.8 – 3.6 kg/100 km; CO₂ emissions combined: 98 – 95 g/100 km) now also has three natural-gas tanks – instead of the previous two tanks. This increased the range powered



purely by natural gas to around 80 kilometres. Distances of up to 480 kilometres (up to 400 kilometres in conformity with WLTP) can therefore be covered when operating purely on natural gas. Customers get to their destination even faster since a new, even more efficient and torquier 1.5 litre TGI four-cylinder engine generating 96 kW (130 hp) is mounted under the bonnet – as in the case of the VW Golf TGI). For the first time, the power unit has a variable turbocharger and uses the Miller combustion cycle. This means that the 1.5 TGI offers ideal enablers for powerful torque from the lowest revs combined with economic operation.

Volkswagen Commercial Vehicles

VW Caddy TGI BlueMotion and VW Caddy Maxi TGI BlueMotion

The **VW Caddy TGI BlueMotion** is right at the top of its vehicle class with combined consumption of 4.9 – 4.6 kg CNG for 100 km in conformity with NECD and CO₂ emissions of 130 – 126 g/km. The **VW Caddy Maxi TGI BlueMotion** is the range master with its 5-tank concept for CNG. It has a range of up to 790 kilometres running on CNG alone. An additional 200 kilometres are possible with the petrol reserve of eleven litres (efficiency class: A). The four-cylinder inline engine with a capacity of 1.4 litres, output of 81 kW (110 hp) and maximum torque of 200 Nm is supplied for all the equipment lines of the Caddy and the Caddy Maxi. The four natural-gas tanks of the Caddy TGI BlueMotion have a capacity of 26 kg, and the five tanks of the Caddy Maxi TGI BlueMotion accommodate 34 kg of natural gas.

Audi

In the premium segment, Audi provides particularly appealing highlights for cost-efficient and simultaneously low-emission mobility with the current g-tron models. A choice of three models and two modern CNG engines are available in this segment.

Audi A3 Sportback g-tron

The **Audi A3 Sportback g-tron** (fuel consumption combined in conformity with NECD: 3.5 – 3.3 kg/100 km; CO₂ emissions combined: 96 – 89 g/100 km; efficiency class A+) opens up entry into premium mobility with the CNG power unit. It is an impressive automobile with



a self-assured design, comprehensive functionality and the efficiency engendered by its powerful 96 kW (130 hp) engine.

Audi A4 Avant g-tron

More space, more elegance, more athletic performance. The **Audi A4 Avant g-tron** (fuel consumption combined in conformity with NECD: 4.4 – 3.8 kg/100 km; CO₂ emissions combined: 117 - 102 g/100 km; efficiency class A+) unites aesthetic design with functional utility value, advanced assistance systems and a particularly powerful CNG power unit. Its 2.0 litre turbo engine generates maximum power of 125 kW (170 hp).

Audi A5 Sportback g-tron

The latest CNG model from the premium automobile manufacturer Audi triumphs with sporty design, versatile functionality and a high level of touring comfort. The **Audi A5 Sportback g-tron** (fuel consumption combined in conformity with NECD: 4.2 – 3.8 kg/100 km; CO₂ emissions combined: 114 - 102 g/100 km; efficiency class A+) is also powered by a 2.0 litre engine generating 125 kW (170 hp).

SEAT

The Spanish automobile manufacturer SEAT is encouraging the changeover to the alternative form of power with its particularly large selection of five CNG models. The portfolio also includes the first SUV model with CNG power unit, the SEAT Arona 1.0 TGI.

SEAT Ibiza 1.0 TGI

The **SEAT Ibiza 1.0 TGI** (fuel consumption combined in conformity with NECD: 3.3 kg/100 km; CO₂ emissions combined: 92 g/100 km; efficiency class A+) offers the most advanced CNG drive technology in the small-car segment. The latest version of the three-cylinder TGI engine generating 66 kW (90 hp) provides lively development of power, three CNG tanks with a total volume of 13.8 kg permit a range of up to 410 kilometres. Thanks to the additional installation of the 9 litre petrol tank, the total range increases to more than 580 kilometres.



SEAT Arona 1.0 TGI

The Spanish automobile manufacturer transfers CNG technology to the SUV segment for the first time in the **SEAT Arona 1.0 TGI** (fuel consumption combined in conformity with NECD: 3.5 kg/100 km; CO₂ emissions: 98 g/100 km; efficiency class A). This continues to be a vehicle segment undergoing particularly dynamic growth throughout the world. The automobile is powered by the latest generation of the 1.0 litre three-cylinder engine with four-valve technology and a maximum output of 66 kW (90 hp). The SEAT Arona 1.0 TGI is supplied in the equipment lines Style, XCELLENCE and FR.

SEAT Leon 1.5 TGI

An increase in capacity, power and CNG range are features of the new **SEAT Leon 1.5 TGI** (fuel consumption combined in conformity with NECD: 3.6 – 3.5 kg/100 km; CO₂ emissions combined: 98 – 95 g/100 km; efficiency class A – A+). The automobile's newly developed 1.5 litre engine generated a maximum output of 96 kW (130 hp). Four-valve technology, a turbocharger with variable geometry and the Miller combustion cycle increase the efficiency, torque and output of the four-cylinder engine. Three CNG tanks with a maximum capacity of 17.3 kilograms are combined with a 9 litre petrol tank as reserve.

SEAT Leon ST 1.5 TGI

The torque and efficiency of the new four-cylinder engine powering the **SEAT Leon ST 1.5 TGI** (fuel consumption combined in conformity with NECD: 3.6 – 3.5 kg/100 km; CO₂ emissions combined: 98 – 95 g/100 km; efficiency class A – A+) are united with an expanded baggage compartment and a particularly high level of variability. The estate model has three CNG tanks and a petrol tank. This provides a CNG range of up to 500 kilometres and a total range of up to 660 kilometres.



ŠKODA

At the top of its range of models powered by CNG ŠKODA offers the spacious ŠKODA Octavia G-TEC Combi. The Czech automaker will also be expanding the range shortly by the new ŠKODA Scala G-TEC and the SUV model ŠKODA Kamiq G-TEC.

ŠKODA Octavia G-TEC Combi

A new 1.5 litre engine generating 96 kW (130 hp) powers the **ŠKODA Octavia G-TEC Combi** (fuel consumption combined in conformity with NECD: 3.5 kg/100 km; CO₂ emissions combined: 96 g/100 km). The particularly spacious compact model supplied in the equipment lines Active, Ambition and Style has a CNG power unit and achieves a range of up to 480 kilometres in pure natural-gas operation. A 9 litre petrol tank ensures mobility in regions where filling stations do not supply natural gas.

ŠKODA Scala G-TEC

The **ŠKODA Scala** is the most recent compact model from the Czech automobile manufacturer. The most efficient and most environment-friendly model versions of the five-door automobile celebrate their world premiere at the CNG Mobility Days in Berlin. The ŠKODA Scala G-TEC will be launched in the marketplace during the fourth quarter of 2019. It is powered by a 1.0 litre three-cylinder engine generating 66 kW (90 hp). (The ŠKODA Scala G-TEC is not yet being offered for sale, details on consumption and CO₂ emissions are not yet available.)

ŠKODA Kamiq G-TEC

At the end of 2019, ŠKODA will also expand the model range by a CNG version of the compact SUV Kamiq. The **ŠKODA Kamiq G-TEC** will also be powered by the new three-cylinder power unit generating 66 kW (90 hp). (The ŠKODA Kamiq G-TEC is not yet being offered for sale, details on consumption and CO₂ emissions are not yet available.)



The potential of CNG has not yet been exhausted

“However, at the 3rd CNG Mobility Days we are also looking to the future and presenting a study with the VW Passat CNG-PHEV that shows how attractive future CNG models can be,” announced Stephen Neumann.

The research vehicle VW Passat CNG-PHEV is a technology study from Volkswagen Group Research that combines a PHEV power unit with a CNG combustion engine. This results in further savings of 20 percent CO₂ compared with a series VW Passat GTE. No petrol at all is used in this vehicle so that the emission-reducing impact of the plug-in hybrid principle is maximally exploited by combining the monovalent CNG engine and the hybrid drivetrain.

The future potential of CNG is also reflected in its status with policymakers.

Two examples of this are the tax relief on natural gas adopted by the German Parliament (Bundestag) extending up until the year 2026. This delivers cost-effective supply of fuel for CNG vehicles over several years and the road toll exemption for vehicles operated on gas with a total weight of more than 7.5 metric tons.

CNG is becoming increasingly important for trucks and buses

For the first time, the TRATON GROUP brands MAN and SCANIA are providing information about the latest developments with trucks and buses at the CNG Mobility Days. The new emission standards in the European Union require CO₂ emissions to be reduced by 30 percent compared with 2019 by the year 2030. This is a target that is almost impossible to achieve with conventional powertrains. CNG is available immediately and it is an alternative that can also be used for trucks in long-distance freight transport and for suburban and long-distance buses.

CNG and green fuels are extremely important when it comes to achieving the Paris climate targets and reduction of CO₂ emissions, emphasises Henrik Henriksson, President and CEO of Scania. “This is because they exert an immediate impact! We cannot afford to wait perhaps ten years before e-drive motors are also fully capable of long-distance travel.” Scania therefore welcomes the decision by the German Parliament (Bundestag) to exempt vehicles



above 7.5 metric tons and powered by gas from the toll in the same way as electric trucks. Henrik Henriksson: “This sustainable option will be even more attractive for freight forwarders. It is sustainable because the vehicles emit up to 15 percent less CO₂ than a comparable diesel truck. However, we believe that road-toll exemption opens up great potential for gas, particularly in relation to long-distance transport.” Contrary to the position for passenger cars, European policymakers perceive great potential for promoting this form of transport. CNG or LNG power units have long been common practice for commercial transport in the Benelux countries, France, Spain, the United Kingdom, Italy and Russia. Germany is just starting out on this journey.

Today, policymakers, town planners and transport operators are confronted with the difficult decision of investing in future-proof and climate-friendly mobility solutions – most importantly in passenger transport. This issue relates to whether they have the courage to take a leap forward and transfer immediately to electric mobility or do they commit to alternative drives? Henrik Henriksson, President and CEO of Scania: “I am confident that until e-drives are completely sustainable, gas, biofuels or highly efficient diesel and hybrid drives will play the most important role.” And executives at MAN in Germany also believe in a mix of technologies at MAN, market and technology leader for CNG city buses in Europe. Gero Hildebrandt, Head of Product Marketing Bus at MAN Truck & Bus in Germany also assumed that the trend over the medium term will undoubtedly be in the direction of electric buses. “But the changeover to battery drives only really makes sense when the energy transition to green electricity has been completed.” Until this switch has been achieved, the strengths of gas drivetrains will continue to hold sway for a long time to come. CNG buses are very reliable, cost-effective and thanks to Euro 6 conformity extremely clean. In conjunction with biomethane generated from agricultural waste products or wind power, CNG city buses are actually the most cost-effective solution for public passenger suburban transport that is effectively carbon neutral. An increasing number of planners from a wide range of transport authorities across the world, including Seoul, Madrid, Paris, Copenhagen and Warsaw, are already using environment-friendly CNG buses from MAN to maintain clean air in public suburban transport.



Autostadt theme park takes delivery of the first Scania CNG bus in Germany

In February 2019, Roland Clement, Chief Executive Officer of the Autostadt theme park in Wolfsburg, took delivery of the first Scania Interlink Bus with Euro 6 gas powertrain in Germany. As an environment-friendly plant tour shuttle and in service operation for Autostadt and for Volkswagen, the CNG bus can play to its strengths and travel more than 400 kilometres powered entirely by natural gas: “Right from the start, our objective in cooperating with Scania was to send out a signal for modern, sustainable mobility here in the Autostadt theme park with the brand’s first CNG bus,” commented Roland Clement. Luc Moulin, Director of Sales for buses, Scania Germany and Austria, added: “Scania buses are a hallmark for environment-friendly passenger transport. This also includes power-unit solutions for CNG and Bio-CNG. Compared with an equivalent bus powered by a diesel engine, savings of up to 15 percent CO₂ can be generated with a Scania CNG bus and by using fossil-based natural gas. This is a big plus for the climate footprint and enhanced sustainability.”

Sustainable mobility

The topic of sustainability is also reflected in the approach adopted by the CNG Mobility Days. Climate-friendly arrangements were a top priority in order to reduce the CO₂ footprint of the event. This includes the furniture, the conference seating and materials, the selection of local suppliers and regional preparation of the catering so as to avoid unnecessary journeys and superfluous waste.

Circle of CNG industrial partners is expanded

The campaign alliance made up of the Volkswagen Group and industrial partners has gained additional strength with the latest new memberships in the circle of CNG industrial companies by the operator of natural-gas filling stations OrangeGas and the Italian transmission system operator for natural gas Snam S.p.A. (Società Nazionale Metanodotti). The objective of the industrial circle CNG Mobility is to join forces and expand the range of vehicles, infrastructure and filling-station network simultaneously and on an equal footing. Achieving this goal is a joint venture in which all the committed partners contribute their individual areas of expertise to the alliance.



Alongside the Volkswagen Group and its brands, the CNG group of industrial companies includes the following (in alphabetical order):

E.ON Gas Mobil GmbH is the leading operator of natural-gas filling stations in Germany. E.ON Gas Mobil supplies its customers with natural gas as a fuel – known as CNG – at around 90 public oil filling stations in the Federal Republic of Germany.

EWE NETZ operates natural-gas grids in north-western Lower Saxony, and in parts of Brandenburg and Mecklenburg-Western Pomerania.

Gazprom NGV Europe GmbH with registered office in Berlin is a subsidiary company of the world’s biggest gas group GAZPROM in Moscow. The company bundles the activities of the GAZPROM Group for natural gas as a fuel on the European market. Gazprom NGV Europe currently operates around 50 natural-gas filling stations in Germany.

The core competence of the company **Hexagon** is the development, manufacture and sales of type 4 composite high-pressure containers for installation in all the different kinds of vehicle designed to store and transport compressed gases, in particular natural gas and hydrogen.

OrangeGas Germany GmbH is a subsidiary company of OrangeGas B.V., which was established in the Netherlands in 2008 and has concentrated on alternative fuels since then. In the Netherlands, OrangeGas alongside PitPoint is among the biggest operators of CNG stations. Since 2017, OrangeGas has also been represented in Germany and currently operates more than 40 CNG filling stations there which offer up to 100 percent Bio-CNG.

ONTRAS Gastransport GmbH is a national transmission system operator in the European gas distribution system based in Leipzig. ONTRAS operates Germany’s second longest gas transmission grid with lines spanning more than 7,000 kilometres for the distribution of natural gas.



Open Grid Europe is one of the leading transmission system operators in Europe with a distribution grid of around 12,000 kilometres. It provides safe and customer-oriented gas distribution.

PitPoint focuses on the issue of clean air. The company is continuously investing in the expansion of its own network of around 100 natural-gas/CNG/biomethane filling stations in Europe.

Snam S.p.A. (Società Nazionale Metanodotti) is one of the leading operators of transmission systems for natural gas in Italy. Snam has operations in Italy and through its subsidiary companies in Austria (TAG and GCA), France (Teréga) and the United Kingdom (Interconnector UK).

TOTAL is a global integrated energy producer and supplier, one of the leading international oil and gas companies. It is one of the biggest players in the solar-energy sector with SunPower and Total Solar. TOTAL Deutschland GmbH has the country's third biggest filling-station network with around 1,200 stations.

VERBIO AG is one of the leading independent bioenergy producers with no group affiliation in Germany and Europe. VERBIO produces biofuels at industrial plants developed in-house and located at four sites in Germany. Furthermore, VERBIO operates four large-scale plants for producing biomethane from agricultural waste products, including two plants that are unique in the world for production of Bio-CNG entirely from straw.

Zukunft ERDGAS e.V. is an initiative by the German natural-gas industry. It represents the brand and the product ERDGAS – natural gas – in communication with consumers, policymakers and market partners. ERDGAS is committed to ensuring that the full potential of the fuel is used and provides information about the opportunities and possibilities offered by natural gas for the energy transition today and in the future.



CNG in European countries outside Germany

Germany is not the only place where CNG is experiencing an upturn as a fuel. A burgeoning infrastructure and increasing demand are also characteristics in neighbouring countries. Europe's hotspot in the area of CNG mobility has been Italy for a number of years. This applies to the vehicle fleet and to the number of CNG stations. A large number of new CNG filling stations are currently being built in the Netherlands, Belgium, the Czech Republic and France. There is a single top priority for car drivers. Nationwide supply is guaranteed in European countries outside Germany – and there are no barriers to holiday trips.

CNG mobility has a particularly long tradition in **Italy** and it is widespread there. Comprehensive infrastructure was developed as early as the 1970s and 1980s. The alternative drive technology was given additional impetus at the beginning of the 2000s. Policymakers, suppliers and automobile manufacturer Fiat concluded an alliance geared towards the provision of state subsidies, further expansion of the filling-station network and the development of CNG models. This led to a boom in registrations. Currently, more than one million passenger cars and light commercial vehicles powered by CNG power units are registered in Italy. In addition, there are more than 2 000 trucks and around 2 500 buses powered by fuel known as “Metano” (methane) in Italy. The number of CNG filling stations between Milan and Palermo currently amounts to almost 1 300. The generation of biomethane in Italy is gaining importance with the help of substantial government subsidies. The current legislation envisages feed-in of up to 1.1 billion cubic metres of Bio-CNG every year into the national natural-gas grid. This volume corresponds approximately to the requirement of all the CNG vehicles currently registered in Italy.

There is also a rising demand for alternative drive units in **Switzerland** and in the Principality of **Liechtenstein** and this in turn entails a growing interest in CNG. The fleet of passenger cars and light commercial vehicles powered by CNG is currently approaching the figure of 15 000 units. The steady growth is being supported by government. The Swiss Federation is promoting low-emission mobility with a reduced oil tax rate for natural gas. Bio-CNG is even completely exempt from the charge. There are also reductions in vehicle tax granted by individual cantons. Over the course of the coming year, a decision needs to be



taken about continuation of the national incentive measures. The network of CNG filling stations comprises 150 locations in Switzerland and two in Liechtenstein. 26 of these stations have a display where the customer can select the desired proportion of Bio-CNG. In parallel with the heating market, the proportion of Bio-CNG is also being continuously increased for vehicle operation.

In **Austria**, a joint initiative by filling-station operator OMV and Porsche Holding is directed towards promoting further expansion of CNG mobility. The filling-station network is being expanded. When purchasing a new CNG model, customers are able to fill up with CNG for one year free of charge. A number of federal states in Austria are providing additional incentive measures. At the moment, around 160 CNG stations are available. The vehicle fleet numbers 7 500 passenger cars and light commercial vehicles, and nearly 250 trucks and buses powered by CNG.

An increasing number of car drivers in the **Czech Republic** are discovering the advantages of CNG mobility. At the moment, the country has around 23 000 passenger cars and light commercial vehicles, and around 1 200 trucks and buses registered with CNG or LNG power units. A national action plan for clean mobility is providing government support for the transfer to CNG mobility with tax incentives and expansion of the filling-station infrastructure. CNG vehicles with a weight of up to 12 metric tons are also exempt from road taxes and charges. The number of CNG filling stations in the Czech Republic is currently about 190.

Around 15 000 passenger cars and light commercial vehicles powered by CNG are currently on roads in the **Netherlands**. The number of trucks and buses using alternative energy sources – generally LNG (Liquified Natural Gas) – amounts to a total of around 2 000. They are currently able to fill up at some 180 filling stations. The number of stations has recently increased significantly and the demand for CNG vehicles is growing in tandem. In the Netherlands, half of the CNG in the supply grid comes from domestic natural-gas production and generation



of biomethane. Between 2014 and 2018, trucks powered by LNG were subsidised through tax incentives.

Legislative incentives are currently being discussed in **France**. These are intended to provide expansion of the infrastructure to supply alternative power units for road transport subsidised by the government. Alongside electromobility, the focus is also on CNG or LNG. Up to now, the expansion of CNG mobility in France has only progressed very hesitantly. Across the country, there are only around 70 public CNG filling stations. These are supplemented by dispensing stations on company sites and depots of public-sector authorities. The number of passenger cars and light commercial vehicles powered by CNG recently increased to around 9 500, about 5 000 trucks and buses are on the road using CNG or LNG.

For around 10 years, filling up with CNG has also been an option in **Spain**. Nearly 50 CNG filling stations are now distributed across the entire country. They supply CNG to some 8 000 passenger cars and light commercial vehicles registered in Spain. Around 2 000 buses are also designed for operation with gas. The use of biomethane as a fuel for mobility on Spain's roads is still in the early stages of development. Spanish automobile manufacturer SEAT is participating in two pilot projects for generating Bio-CNG from green biomass and effluents.

In **Sweden**, around 42 000 passenger cars and light commercial vehicles, and nearly 12 000 trucks and buses running on CNG or LNG have access to more than 180 CNG filling stations throughout the country. The proportion of Bio-CNG in overall consumption has been increasing continuously over recent years and it now accounts for more than 90 percent. This further significantly increases the contribution of CNG vehicles to emission reduction in Sweden.

The alternative fuel also has a thoroughly remarkable status in **Finland** with around 7 500 passenger cars and light commercial vehicles, and some 700 trucks and buses powered by CNG or LNG. Out of around 40 filling stations available across the country, the majority of them also supply Bio-CNG. This means that more than half the requirement for CNG is



covered with the assistance of green methane. The Finnish state subsidises the building of plants for the production of biomethane and the installation of Bio-CNG filling stations with investment grants.

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