



# ANNUAL REVIEW

# 2018



**LPG**  
EXCEPTIONAL  
ENERGY

**Liquid Gas  
Europe**





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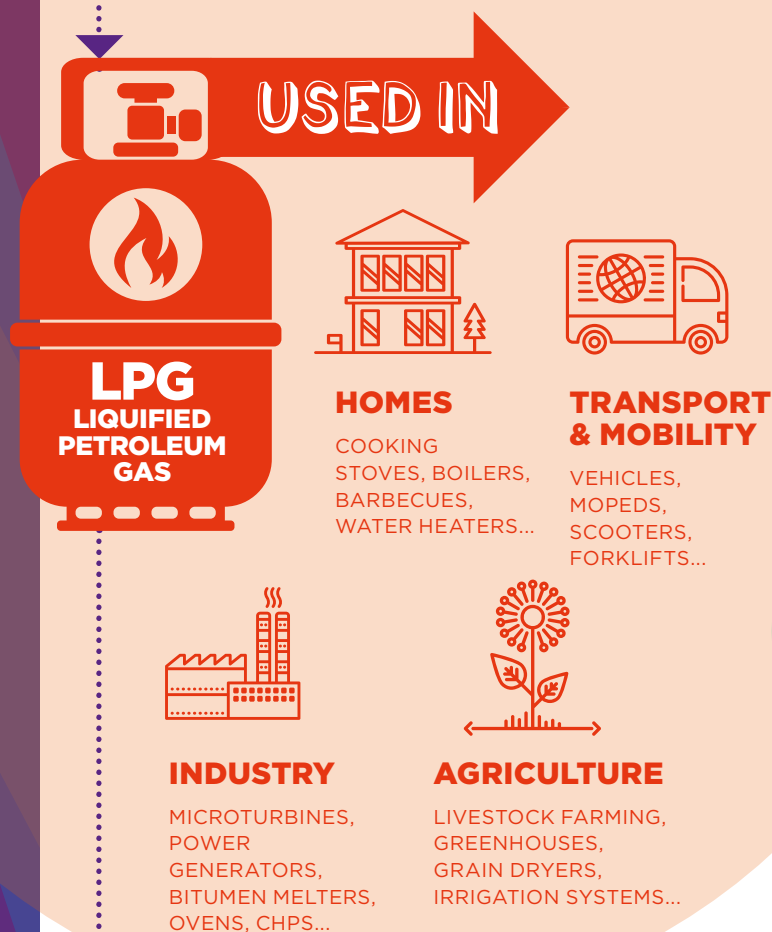
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# WHAT IS LPG?

FROM... OIL REFINING, NATURAL GAS EXPLOITATION, AND RENEWABLE SOURCES



## BIO LPG

**WITH THE SAME CHEMICAL COMPOSITION OF LPG, BIO-LPG BRINGS EVEN HIGHER ENVIRONMENTAL BENEFITS BECAUSE OF ITS RENEWABLE ORIGIN!**

Produced from many possible processes, including from hydrotreatment of biological oil and fats, and from the fermentation of glucose by bacteria, yeasts or other microorganisms, Bio LPG has an even lower carbon footprint.

This product is a potential game changer showing the industry's investments in new products and its commitment to sustainability.

## WHY IS LPG A CLEAN ALTERNATIVE?

ALMOST **NO BLACK CARBON** EMISSIONS

EMITS **49%** LESS CO<sub>2</sub> THAN COAL

AND **17%** LESS THAN HEATING OIL

**23%** LIFECYCLE GHG FOOTPRINT LOWER THAN DIESEL AS TRANSPORT ALTERNATIVE FUEL!

**LOW EMISSIONS**

# LPG - EUROPEAN STATS



RESIDENTIAL DEMAND  
IN FRANCE INCREASED BY  
**6%**



INDUSTRIAL DEMAND  
IN GREECE INCREASED BY  
**9%**



TOTAL NUMBER OF  
LPG CARS IN ITALY:  
**2.3 million**



POLAND HAD  
**140**  
THOUSAND TONNES  
MORE DEMAND



TOTAL DEMAND IN  
GERMANY INCREASED BY  
**32%**  
MAINLY IN THE PETCHEM  
SEGMENT



**15 MILLION**  
VEHICLES CURRENTLY  
USE LPG AUTOGAS



OVER  
**46,000**  
**STATIONS**  
SUPPLY LPG ALL  
OVER EUROPE

## LPG CONSUMPTION BY SECTOR

\*EU COUNTRIES, BOSNIA AND HERZEGOVINA,  
MONTENEGRO, NORWAY, SERBIA, SWITZERLAND,  
TURKEY AND UKRAINE.

\*DATA FROM THE EUROPEAN LPG SECTOR  
OVERVIEW 2017 (EVOLUTION 2015-2016). AS A  
MEMBER OF OUR ASSOCIATION WE PROVIDE YOU  
WITH FREE COPIES OF THIS STATISTICAL REPORT.

RESIDENTIAL **19%**

AGRICULTURE **2%**

TRANSPORT **28%**

CHEMICAL **40%**

INDUSTRY **11%**

AEGPL  
IS NOW...

LIQUID GAS  
EUROPE!



European  
LPG  
Association

Liquid Gas  
Europe



# VISION



**Our vision is that LPG and renewable LPG are acknowledged in Europe as the clean, available and innovative alternative energy of choice,** that brings great benefits today to all users and will continue to deliver even more value in the future.



# WELCOME REMARKS

**2018 WILL GO DOWN IN OUR HISTORY AS THE YEAR WHEN THE EUROPEAN LPG ASSOCIATION RE-INVENTED ITSELF. IT WAS ALWAYS GOING TO BE A LANDMARK YEAR AS WE CELEBRATED OUR 50TH ANNIVERSARY – AND WHAT A YEAR IT HAS BEEN!**

**Our Association was created in Paris in 1968. In the beginning we were a small organisation created by a handful of national associations that saw the benefit of joining forces and working together in the interest of the European LPG industry. As time passed, it grew both in scope and in membership, and eventually moved to Brussels to be closer to the decision-making bodies of the European Union. Today, 50 years later, we are so much more than what our founding fathers ever dreamed of – we have over 50 members, we represent the full European LPG supply chain, we are a respected and active partner of the European Institutions, and we provide many different resources to all our members.**

The Association has evolved, and so it was felt that it was time for our identity and image to evolve as well. In 2018, we said goodbye to our old name and acronym – AEGPL – and we welcomed a fresh new name: Liquid Gas Europe! We remain the European LPG Association, but we now have a name that better conveys who we are and what we do. Together with the new name, we also completely refreshed our visual identity. Our new logo is much more colourful and modern, representing the variety of sectors that we represent and the dynamism of our industry. We updated our communication materials, focusing on making them lighter and easier to share with other stakeholders while maintaining all the focus on relevant content. We have a new website where all our work is on display, where members can find exclusive resources and where anyone interested in LPG can discover more about the product and its multiple benefits. Finally, we have also revisited the Mission and Vision of the Association. All these vital changes were only possible because of the involvement and engagement of our members who kindly offered their time, energy and expertise in guiding and supporting us in this epic effort – to them our most heartfelt thank you!

In 2018 our daily advocacy work continued, in representation of the interests of the European LPG and renewable LPG industry. We have strengthened our relationships with EU stakeholders from the different institutions, but also with other associations and organisations and with the media. We have been successful in securing specific mentions

to LPG in key pieces of legislation and in protecting the interests of our industry in other areas. You can read more details about our policy work in all its dimensions – EU energy and environment policy, sustainable mobility policy, technical standards and regulations, HSE, etc in this document. Our anniversary and re-branding were also a great opportunity to organise a landmark cocktail networking event in Brussels in 2018. We invited EU officials and stakeholders whom we regularly work with to a cocktail event where they were able to meet and network with our members in a relaxed atmosphere and which was one of the highlights of our year!

So much more was done in 2018: we could tell you more about our initiative of inviting external stakeholders to share their expertise with our members in our internal meetings; we could tell you about the second edition of our National Association Award; we could tell you about the Motorshows where we were present showcasing the benefits of Autogas – but that is what this Annual Review is for! So, we hope you enjoy flicking through these pages and we hope that we continue counting on your support to achieve even more successes in 2019.



**FRANCESCO FRANCHI**  
PRESIDENT OF LIQUID GAS  
EUROPE



**SAMUEL MAUBANC**  
GENERAL MANAGER OF LIQUID  
GAS EUROPE

# LIQUID GAS EUROPE COORDINATION GROUPS

## EU POLICY

- + Energy Efficiency Working Group + Renewable LPG Advocacy Working Group
- + Energy Taxation Directive Working Group

Liquid Gas Europe's Policy Coordination Group, made up of policy experts from amongst Liquid Gas Europe's members, comprises working groups on specific legislative dossiers. The working groups operate together by frequent conference calls and occasional in-person meetings to enhance the understanding of potential impacts of legislation, and ensure our message to the European institutions and national governments is as consistent as possible. The coordination group is managed from Brussels by the Liquid Gas Europe secretariat.



## TECHNICAL

- + Transport RID/ADR/ADN Working Group + Bleve Prevention Working Group
- + Internal inspection of cylinders during periodic requalification Working Group
- + Liquid Gas Europe incidents/accidents Working Group
- + LPG truck of the future + LPG product quality

Liquid Gas Europe's technical coordination group, managed by Liquid Gas Europe's technical manager, consists of technical experts from its members. It is responsible for steering Liquid Gas Europe's technical work. It formulates responses to emerging technical and HSE legislation and it devises strategies for appropriate enforcement of relevant laws at national level and eradication of unsafe and unfair practices. It meets four times a year, with additional ad hoc net meetings, conference calls and additional task force activities organised as needed. Liquid Gas Europe's technical manager is shared with the World LPG Association, bringing in synergies between the European LPG sector and the rest of the world.



## AUTOGAS

**The Autogas coordination group covers policy and technical issues that are of specific relevance to the use of LPG as transport fuel.**

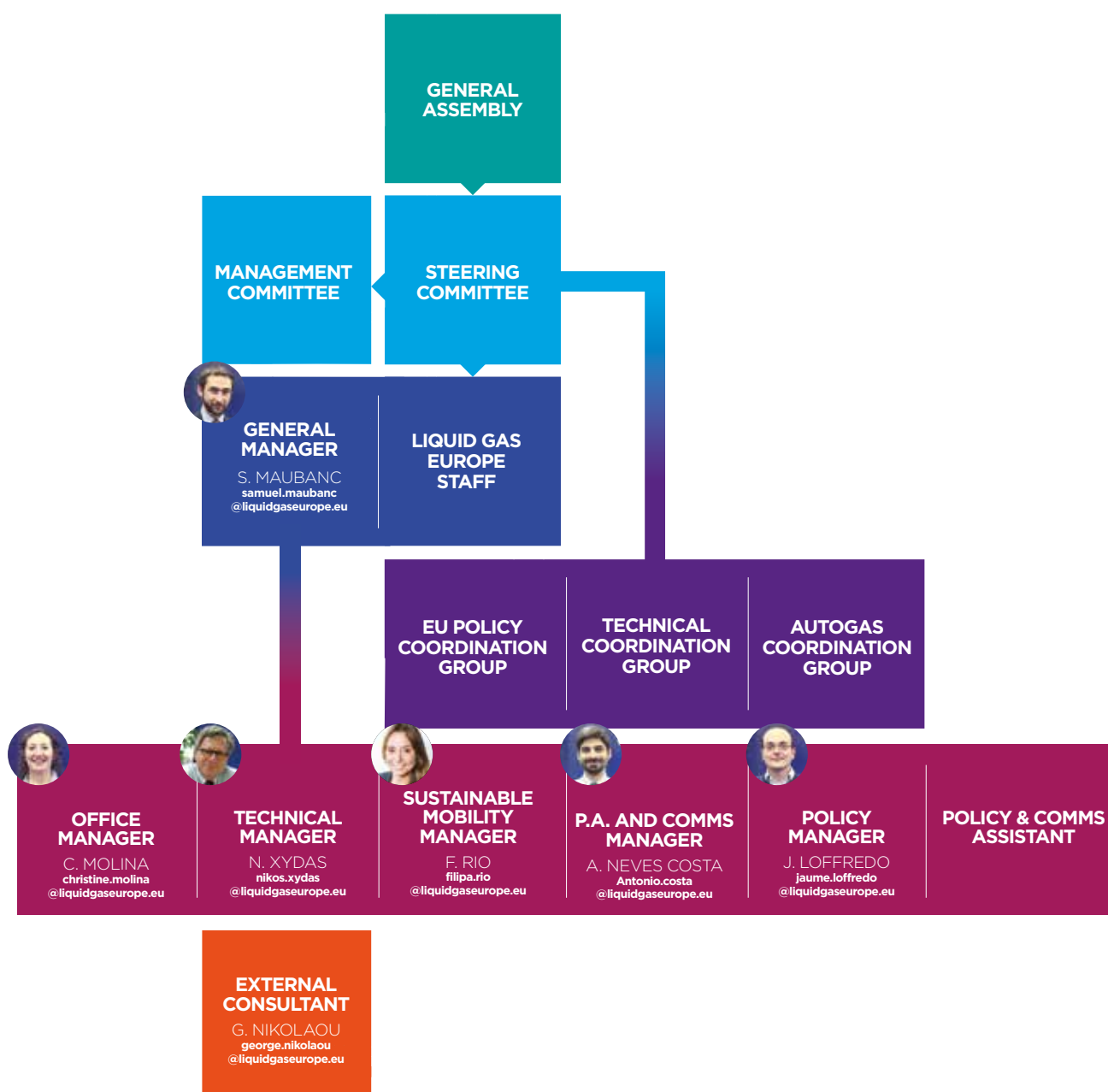
To ensure synergies and optimal use of staff and members expertise, two-way communication channels are established with the other two Coordination Groups for issues that may be of shared interest. This group allows the interested members to participate in discussions such as the long term development of the Autogas infrastructure and how to best implement future fuel requirements, modernising the brand Autogas.







# ORGANISATION STRUCTURE 2019



# STEERING COMMITTEE

**FRANCESCO FRANCHI**  
ASSOGASLIQUIDI, PRESIDENT  
OF LIQUID GAS EUROPE

**ANDREAS STÜCKE**  
DVFG, TREASURER OF  
LIQUID GAS EUROPE

**HENRY CUBBON**  
DCC ENERGY LPG,  
MANAGEMENT  
COMMITTEE MEMBER

**JOËL PEDESSAC**  
CFBP

**MARIA MALMKVIST**  
ENERGIGAS SVERIGE

**JOSE ALBERTO  
OLIVEIRA**  
APETRO

**SANTIAGO PEREZ**  
GASLICUADO (FORMER AOGLP)

**NATACHA CAMBRIELS**  
BUTAGAZ

**ESTHER BUSSCHER**  
SHV ENERGY, VICE-PRESIDENT  
OF LIQUID GAS EUROPE

**NEIL MURPHY**  
UGI INTERNATIONAL,  
MANAGEMENT  
COMMITTEE MEMBER

**GEORGE WEBB**  
UKLPG

**JESÚS GACIO  
TORRIJOS**  
REPSOL

**CHRISTOS  
CHRISTOFIDES**  
VERONIKI HOLDING

**ANTONIO BARANI**  
ANKORGAZ

**MARCO ROGGERONE**  
AUTOGAS NORD

**ANGUEL ANGUELOV**  
V-GAS BULGARIA





EUROPEAN LPG

## CONGRESS







# KEY ACHIEVEMENTS

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# 2018



**Re-branding: from AEGPL  
to Liquid Gas Europe**



**Inclusion of Bio LPG in the  
scope of the Renewable  
Energy Directive**



**Participation in Motorshows  
around Europe**



**Introduction of stringent  
air quality requirements  
in the Governance of the  
European Union**



**Gathering of EU  
stakeholders and our  
members at the 50th  
Anniversary event  
in Brussels.**



# RENEWABLE ENERGY

## DIRECTIVE

**ACHIEVING THE GOALS SET IN THE PARIS AGREEMENT WILL ALSO REQUIRE INCREASING THE SHARE OF RENEWABLE ENERGY.**

**The Renewable Energy Directive contains rules aiming to achieve this goal, by setting clear targets both for the economy and for some specific sub-sectors.**

After being adopted in Q4 2018, the new Renewable Energy Directive was published in the European Union's Official Journal last December. The new rules directly support the European LPG industry's goal to increase renewable LPG's presence on the market.

### **The new rules pave the way for EU wide support to renewable LPG**

Since renewable LPG is a new product, it was not covered by the past Renewable Energy Directive, which was adopted in 2010. This created legal uncertainty, as the product was eligible for support in some countries, but not in others. Liquid Gas Europe provided the European Commission with relevant data on renewable LPG, which led to the inclusion of several references to the product in annex 3 of the new Directive. With these references in place, national LPG associations will be able to refer to the Directive as an initial reference point when they reach out to their governments in order to achieve recognition for renewable LPG at the national level.

### **The target for renewable LPG in transport promotes renewable LPG without being too burdensome for the industry**

The new Directive also foresees a 14% target for renewable transport fuels, to be achieved by 2030. The new target applies to all fuels and Member States can decide to implement it by introducing a renewable energy mandate, which fuel suppliers would be subject to.

Renewable LPG currently is available in small quantities and the inclusion of a specific target for transport will stimulate the production and the sale of the product in this segment. However, given the current limited production capabilities, it is unlikely that the LPG industry would be able to source enough volumes of renewable LPG. Liquid Gas Europe reached out to European decision makers, explaining that the target could be detrimental for an industry which is already distributing a fuel with a better environmental footprint than conventional fuels.

The European institutions welcomed Liquid Gas Europe's propositions and allowed member states to set a lower target for those fuels for which there are not sufficient volumes of its renewable equivalent on the market.







# ENERGY EFFICIENCY DIRECTIVE

**A NEW ENERGY EFFICIENCY DIRECTIVE WAS ADOPTED IN Q4 2018 AND PUBLISHED IN THE EUROPEAN UNION'S OFFICIAL JOURNAL LAST DECEMBER.**

**Its goal is to reduce the energy demand of the European economy, by increasing its energy efficiency. Energy suppliers have been and will continue being key partners of the European Union and of national governments in achieving this goal, as they have a direct contact with their customers, hence they are best placed to provide personalised advice on how to reduce their energy demand.**

## **Rules on energy savings don't penalise small companies**

Concretely, the Energy Efficiency Directive aims at achieving its main goal by setting an energy efficiency target for 2030 and by requiring Member States to reduce final energy consumption by 0.8% per year from 2021 to 2030. To achieve this target, Member States can require energy companies to be part of white certificate schemes, through which they facilitate their customers' switch to more energy efficient appliances or solutions. These schemes are proportionally more expensive for smaller energy sectors and companies, as they have high fixed costs. For this reason, Liquid Gas Europe made the case of maintaining flexibility in their implementation; a proposal that was welcomed by European decision makers.

## **The new Primary Energy Factor is fit for purpose**

In addition, the directive sets a conversion factor – the Primary Energy Factor – ensuring that consumption of electricity and of primary energies (such as oil and gas) can be fairly compared. If this factor were not used, electricity would systematically look a more efficient energy carrier than any other primary energy such as LPG, as the losses in power production and transmission would not be accounted for in legislation.

The European Commission had proposed to introduce a value based on future projections and not on actual data, which may have lead Member States to implement measures only achieving savings on paper, but not in the real world. This would have also had negative consequences for the LPG industry, as LPG would have been unfairly penalised by legislation.

Liquid Gas Europe coordinated its advocacy efforts with other like-minded organisations, aiming at ensuring that a value that is more fit for purpose is introduced in legislation. After months of negotiations, the European institutions settled for a revised PEF of 2.1, a value that is closer to today's reality.





# GOVERNANCE OF THE ENERGY UNION

**CLIMATE CHANGE AND AIR POLLUTION ARE INTERTWINED  
AND THERE ARE SYNERGIES IN TACKLING THE TWO  
PHENOMENA TOGETHER.**

**Over the past years, Liquid Gas Europe has made the case for measures that deliver benefits on both aspects, such as improving energy efficiency or promoting switch to less polluting and lower carbon fuels.**

**New rules ensure that air quality is not overlooked in energy policy making**

In line with Liquid Gas Europe's suggestions, the regulation on the Governance of the Energy

Union requires member states to assess the impact on air quality of the energy legislation that will be laid down to implement the EU Directives on Renewable Energy, on Energy Efficiency and on the Energy Performance of Buildings.

A welcome consequence would be that Member States where air quality is particularly poor will be required to promote a switch away from polluting fuels, such as coal and oil. In addition, measures such as increasing the share of solid biomass will be allowed only to the extent that they do not result in a worsening of air quality.

**“The work of Liquid Gas Europe on the Renewable Energy Directive helped creating the right conditions that will enable the development of Renewable LPG in Europe.”**

**Emilie Coquin**  
CFBP, French LPG Association





# REVIEW OF THE CLEAN VEHICLES DIRECTIVE

**THE CLEAN VEHICLES DIRECTIVE AIMS TO PROMOTE CLEAN MOBILITY SOLUTIONS IN PUBLIC PROCUREMENT TENDERS AND THEREBY PROVIDE A SOLID BOOST TO THEIR DEMAND AND FURTHER DEPLOYMENT.**

**Liquid Gas Europe has worked extensively in 2018 with the European Parliament and the Council to propose some improvements to the Commission proposal issued in November 2017.**

A number of these proposals have been taken onboard. Here are some of the key aspects of the European Parliament position of relevance to our industry:

- The legal definition of clean vehicles is brought more in line with the Directive on Alternative Fuels Infrastructure (DAFI), i.e. including LPG, and only excluding first generation biofuels.
- In addition, 'zero-emission vehicle' is defined as a vehicle with zero CO<sub>2</sub>, NO<sub>x</sub> and fine particles tailpipe emissions; 'low-emission vehicle' is defined as a vehicle with maximum CO<sub>2</sub> emissions of 50 g/km for M1, M2 and N1 vehicle.
- Retrofitting of vehicles to clean vehicle standard can also be counted towards achievement of the minimum procurement targets.

- Technologies contribute differently to the mandate: Zero-emission vehicles and vehicles retrofitted to zero-emission standard shall be counted as 1 vehicle contributing to the mandate. Natural gas vehicles only powered by biomethane also count as 1. Zero-emission battery powered vehicles and vehicles retrofitted to zero-emission standard using sustainable and recyclable batteries shall be counted as 2 vehicles contributing to the mandate. All other vehicles shall be counted as 0.5 vehicle contributing to the mandate.

- The Commission should establish, no later than 31 December 2022, a methodology for counting life-cycle CO<sub>2</sub> emissions and well-to-wheel CO<sub>2</sub> emissions of vehicles.

**At the time of writing, the Council has not finalised yet its position. The next step will then be the interinstitutional negotiations with the Parliament to finalise the legislation.**

**"We are experiencing rapid growth for Autogas in our key market, Spain. It is great to have Liquid Gas Europe acting as a hub for knowledge and joint actions across the European industry. It is critical for our sector to act together if we want to nurture cooperation with public authorities and vehicle manufacturers."**

**Estibaliz Pombo, Repsol**





POST 2020

# CO<sub>2</sub> STANDARDS

## POST-2020 CO<sub>2</sub> STANDARDS FOR PASSENGER CARS AND LIGHT COMMERCIAL VEHICLES.

**Like the Clean Vehicle Directive, this proposal was also part of the second EU Clean Mobility Package, possibly as the piece of legislation bearing the highest political stakes.**

Overall it aims at the transition from conventional combustion-engine vehicles to cleaner ones, i.e. pushing for the uptake of zero and lower carbon emission technologies. The targets for 2021 are currently set at 95 g/km for cars and 147 g/CO<sub>2</sub> for vans.

In line with Liquid Gas Europe's suggestions, the current provision on measuring emissions produced by bi-fuelled vehicles (petrol/gas) has been maintained in the new regulation..This means Member States shall use only the figure measured in gas mode for these vehicles.

In its extensive exchanges with the Parliament and Council on this dossier, Liquid Gas Europe advocated for the principle of technology neutrality, and therefore a well-to-wheel or a life-cycle approach to vehicle emissions. More specifically, we proposed to:

- Establish an ex-post credit system to reward the manufacturers putting on the market vehicles running on biofuels and biogases and other low carbon fuels (Carbon Correction Factor)

- Include a review clause to ensure a change of the metric, from tailpipe to well-to-wheel, through a new Commission proposal by 2023

After months of legislative review, the European Parliament and the Council set their respective position in late 2018 and conducted triologue discussions, which are now in their final phase. The final compromise text has set the bar at 15% emission reduction for 2025, and 37,5% (31% for vans) for 2030 vs. 2021 levels.

A review clause is also introduced to possibly revise the 2030 targets in 2023 if it becomes necessary for matching the overall EU decarbonization objectives. This review will also include an assessment of availability and benefits of synthetic and advanced alternative fuels from renewable sources. Finally, the Commission is requested to evaluate by 2023 the possibility to establish a methodology for the assessment of life-cycle CO<sub>2</sub> emissions of cars and vans.

The agreed text has also resulted in higher ambition than the initial Commission proposal on the share of zero and low emission vehicles (i.e. those producing less than 50g CO<sub>2</sub>/km) as part of the fleet of newly registered vehicles. The benchmark has indeed been set at 15% in 2025 and 35% (30% for vans) in 2030.







# FUEL LABELLING

## AND EU METHODOLOGY FOR FUEL PRICE COMPARISON

**AS PART OF ITS OBJECTIVE TO FACILITATE THE DEVELOPMENT OF A SINGLE MARKET FOR ALTERNATIVE FUELS IN EUROPE, THE DAFI DIRECTIVE FROM 2014 LAID DOWN AN OBLIGATION TO HARMONISE THE LABELLING OF FUELS ACROSS EUROPE.**

**The Directive indeed called for setting up appropriate consumer information on fuels, including a clear and sound indication of the compatibility between different fuels and cars.**

Liquid Gas Europe participated in the preparation of the new labelling scheme that was adopted in 2018.



The new labels will be deployed not only in all 28 European Union Member States and EEA countries (Iceland, Lichtenstein and Norway), but also in Former Yugoslav Republic of Macedonia, Serbia and Turkey.

Another obligation from the DAFI, related to the creation of a methodology facilitating fuel price comparison, was also adopted in 2018. After several rounds of discussions with stakeholders and Member States, the Commission finally released in May an Implementing Regulation on Fuel Price Comparison. The regulation settled for a methodology based on an indicative ranking in € per 100km, and does not include any specific obligation as to where and how the information should be displayed by fuel distributors and/or public authorities.



# ONGOING WORK ON AUTOGAS STANDARDS

## **UNECE Regulation 67 on Uniform Technical provisions concerning the approval of specific equipment on vehicles using liquefied petroleum gases in their propulsion system.**

Throughout the year, Liquid Gas Europe has taken an active role in the Working Party on General Safety Provisions at the UNECE in Geneva, where many papers touching upon Regulation 67 were discussed. Liquid Gas Europe worked on proposals from Germany regarding visual inspection of LPG containers. In that context, Liquid Gas Europe submitted provisions to ensure sufficient access to the LPG-container and its accessories (when located outside the vehicle), but without the necessity of disassembling any components or part of protective housing of the LPG-container and its accessories. The inspection should then be conducted without the use of tools to dismantle, but with visual aids, e.g. lamps, mirrors or endoscopes. Those provisions were adopted as a supplement to O2 series of amendments to UN Regulation 67.

A second paper submitted by Liquid Gas Europe was adopted as a supplement to O1 series and will be finally approved in WP29 March 2019 session. The document aimed to adapt the Regulation to technical progress, specifically for the definition of a type of container and Annex 2B. Liquid Gas Europe introduced a formal document as a counterproposal, which was supported by a number of experts in amending Annex 2B.

Discussions on other papers related to specifications for LPG multi-valves, provisions on the location on the vehicle of the filling unit and on the service life of LPG containers were postponed until the next April 2019 session. Liquid Gas Europe will develop its position and engage with relevant experts to ensure the best possible outcome at the next meeting.

## **UNECE Regulation 115 on Uniform provisions concerning the approval of specific LPG (liquefied petroleum gases) retrofit systems to be installed in motor vehicles for the use of LPG in their propulsion system.**

Liquid Gas Europe actively contributed to the work in GRPE aiming to update UN Regulation 115 and to introduce a reference to WLTP instead of emission tests performed on the basis of the former test cycle (New European Driving Cycle (NEDC)). It was agreed that performing a back to back test on the basis of the NEDC test cycle would not make sense if the original type of vehicle would be type-approved on the basis of WLTP, in the light of para. 1.5 of UN Regulation

115 specifying that the modified vehicle needs to fulfil all the provisions of the Regulation for which the type approval has initially been granted. Type I test should therefore be performed with the same cycle used during the approval of the original type of vehicle.

It was also accepted, until the entry into force of the amendment to Regulation 115, that the emission requirements for the approval of LPG retrofit systems for light duty Euro 6d-TEMP vehicles shall be met using WLTC cycle in type I test. All references to NEDC methodology in current version of Regulation 115 shall be interpreted as WLTC methodology.

## **Revision of EN589 on requirements and test methods for marketed and delivered automotive LPG.**

Liquid Gas Europe continue to work on the review of EN589 and product quality issues in general that affect and influence the strategies of the car manufacturers (OEMs) and the global deployment of new vehicles and technology. The reduction in sulphur content is critical as it allows to maintain LPG's advantage as a low price and low emission fuel.

In February, CEN/TC19/WG23 meeting in Hamburg discussed in details the future improvements of EN 589. prEN 17178 "Liquid petroleum products - Determination of the total volatile sulphur content in liquefied petroleum gases by ultraviolet fluorescence" was not approved in the public enquiry due to failure to meet the weighted percentage of EEA Population requirement. It was decided to send it for a second enquiry after revising with the comments received and accepted.

A new definition for LPG proposed by Liquid Gas Europe was adopted in TC286, in order to clearly cover the Bio origin of LPG and to remove the Petroleum reference in the standard, which is very important for the renewable future of our industry. LPG is now defined as "low pressure liquefied gas composed of one or more light hydrocarbons which are assigned to UN 1011, 1075, 1965, 1969, or 1978 only and which consists mainly of propane, propene, butane, butene isomers, butenes with traces of other hydrocarbon gases."

Discussions on LPG's Octane number also took place, where it was highlighted that it cannot be measured correctly and that there is no MON method available that describes LPG's knock behaviour. Moreover, it was recognised that there is no standardised procedure to calculate the methane content and that the improvement and

modification of the RON measurement for LPG may be a promising alternative.

While the revised EN 589: 2018 standard was published, the results of second enquiry on prEN 17178, future improvements of EN 589 (next review), new parameters, new methods and the pending issue of the minimum propane rate will be discussed in the next meeting in March 2019.

## **TC441 WG6 LPG equipment and accessories- FUEL LABELLING FOR ROAD VEHICLES.**

Liquid Gas Europe has contributed since 2015 to EN 16942 development based on DAFI Directive 2014/94/EU, which includes a requirement for new vehicles and all fuel pumps/recharging stations to be labelled consistently. This would allow drivers to better select the fuel that their vehicle can properly use.

In 2018 Liquid Gas Europe participated in a number of meetings, where the effective implementation of EN 16942, the status of adoption in other CEN standards and further steps required following the implementation were discussed.

The new labelling has to be applied since 12 October 2018 in all 28 European Union member states, EEA countries (i.e. Iceland, Lichtenstein and Norway) and also North Macedonia, Serbia, Switzerland and Turkey, as they are all CEN members.

### **These labels started to appear:**

- on newly-produced vehicles in the immediate proximity of the fuel filler flap/cap, and in the vehicle owner's manual and may also appear in the electronic handbook available via a vehicle's infotainment centre;
- at all public refuelling stations on the fuel-dispensing unit, and on the filler nozzle of the fuel dispenser and; at vehicle dealerships.



## **TC286 WG6 LPG equipment and accessories.**

Liquid Gas Europe participated in work group meetings and contributed to resolve comments on EN 16652 series, for Part 2 (Qualification of personnel) submitted during public enquiry. The document went for final vote. Potential revision of other standards such as EN 12806, EN 12979 and EN 13760 are still being discussed. Final decision about their revision will be taken next year.



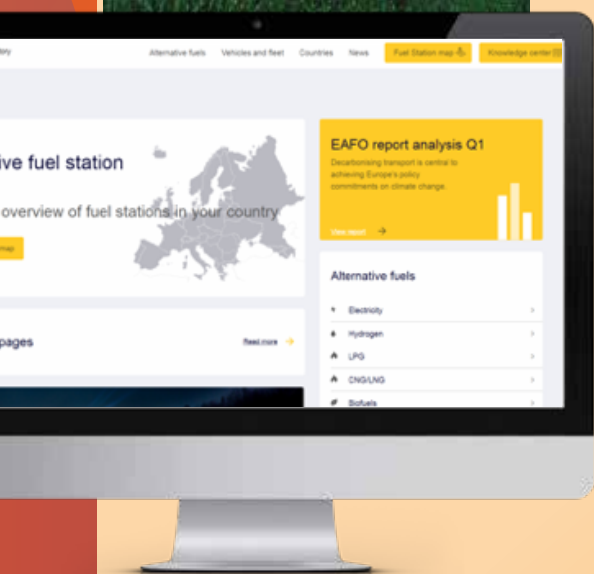


# AUTOGAS VISION

**THE AEGPL AUTOGAS ROADMAP HAS BEEN AT THE CORE OF THE EUROPEAN LPG INDUSTRY'S ADVOCACY STRATEGY AT EU LEVEL, FOR YEARS.**

**Liquid Gas Europe has worked in 2018 in revising this important document. While some of the projections from the Roadmap were dated, and the EU policy focus has shifted to long term horizons. It was decided to take an even more ambitious stance for devising the potential of market development of Autogas in Europe and its many future environmental and economic benefits.**

With the help of the Autogas Coordination Group a methodology and a general level of ambition were defined as a framework for the econometric modelling performed by the Belgian academic centre TM Leuven. The projections, which are based on the Moveet model used by the European Commission for some of their impact assessments, are being finalised and will serve as a core feature of the new Liquid Gas Europe Autogas Vision, to be published in Q1 2019.



## REVAMPING OF THE EUROPEAN ALTERNATIVE FUEL OBSERVATORY

**LIQUID GAS EUROPE IS A PROUD MEMBER OF THE CONSORTIUM MANAGING THE EU-FUNDED EUROPEAN ALTERNATIVE FUEL OBSERVATORY. [WWW.EAFO.EU](http://WWW.EAFO.EU)**

**This website aims at promoting the uptake of alternative transport fuels, as mandated in the DAFI, and at informing consumers about the network of refueling stations and alternative fuel vehicles available in Europe. The new version of the website was launched in October 2018.**



## LIQUID GAS EUROPE PRESENT IN MOTORSHOWS

**LIQUID GAS EUROPE WAS PRESENT AT TWO MOTOR SHOWS IN 2018, HIGHLIGHTING THE ENVIRONMENTAL AND ECONOMICAL BENEFITS OF AUTOGAS.**

Early in the year Liquid Gas Europe shared a booth with FebuPro at the Brussels Motor Show, educating Brussels-based stakeholders and visitors on the benefits of Autogas.

In October we were also present at one of the largest Motor Shows in Europe, the Paris Motor Show, in partnership with the WLPGA, showcasing the Tecno Montecarlo LPG supercar, powered by Autogas.







# TECHNICAL, HSSE AND STANDARDISATION

**THE KEY ROLE OF THE LIQUID GAS EUROPE TECHNICAL FUNCTION IS TO SUPPORT THE NEEDS AND ACTIVITIES OF THE MEMBERS IN TECHNICAL, SAFETY AND SECURITY ISSUES AND ALSO AT TIMES, IN OPERATIONS.**

Key activities include the development and maintenance of Health, Safety and Technical legislation through European Directives and Regulations, active contribution to the European standardisation processes (CEN), sourcing and sharing of information and knowledge on technical, safety, security, operational issues, as well as best practices and innovation.

## Existing Technical Working Groups:

- TRANSPORT RID/ADR/ADN
- BLEVE PREVENTION
- INTERNAL INSPECTION OF CYLINDERS DURING PERIODIC REQUALIFICATION
- LIQUID GAS EUROPE INCIDENT/ ACCIDENTS MANAGEMENT SYSTEM

## New Groups in 2018

### THE LPG TRUCK OF THE FUTURE

A new working group on the LPG Truck of the Future was created in 2018 to discuss issues like the work on Bleve prevention, some recent road accidents but also to the need for the LPG industry to be proactive, innovative and look ahead into the future. A key objective of our industry is to position itself as an industry progressive in nature, by being involved in exploring how new technology can help to minimise the risk to our employees, our customers and members of public. This new working group aims at investigating all available passive and active road vehicle technologies and particularly the most recent ones, and proposing those that should make part of the LPG trucks of the future.

### LPG PRODUCT QUALITY

This is the last new working group created in 2018. LPG product quality is an issue of major importance, as highlighted by a leading OEM in a recent meeting of Liquid Gas Europe. The new working group will try to address the issues in order to eliminate the related concerns, and in particularly as related to some specific countries.



# CEN/ISO

## STANDARDISATION

### LIQUID GAS EUROPE ACTIVELY SUPPORTS LPG RELATED HEALTH, SAFETY AND TECHNICAL STANDARDISATION PROCESSES IN PARTICULAR THOSE RELATED TO THE EUROPEAN PROCESSES (CEN).

**Liquid Gas Europe sponsors the LPG dedicated Technical Committee CEN TC 286 “Liquefied Petroleum Gas Equipment and Accessories” responsible for standardization of LPG pressure equipment and their accessories, covering design, manufacture, inspection, testing and operational requirements. The committee prepares standards in line with the essential requirements of relevant EU Directives. The relationship in Europe between standards and legislation makes the work of TC 286 of paramount importance in terms of safety and costs to the LPG business.**

The Liquid Gas Europe Technical Manager ensures effective guidance to the committee in the best interest of the members of the Association. Support of the standardisation process involves also monitoring other LPG related standardisation committees such as TC181, TC296, TC23, TC19 etc.

The chairman of the committee is Mr. Tim Barnett. Each year, TC 286 holds its plenary meeting in spring, to review the year activity and agree the program of the following year. The meeting was held in May, in Rome, and hosted by the Italian LPG

Association Assogasliquidi. It was attended by 22 experts, from 12 countries, Cyprus, France, Germany, Greece, Ireland, Italy, Norway, Poland, Portugal, Spain, Sweden and United Kingdom.

The committee went again through some changes in 2018, Karol Sarosiek of the German LPG Association, DVFG took the place of convener in WG5.

#### **WG 1 Working Group 1**

has responsibility for the design and manufacture of LPG pressure vessels (Convenor Dr. Tony Neale, Calor).

#### **WG 2 Working Group 2**

has responsibility for the design and manufacture of accessories for vessels designed by Working Group 1 (Convenor Mr. Paul O’Connell, Flogas).

#### **WG 5 Working Group 5**

has responsibility for the operational requirements of the transport of LPG in tanks by road or rail (Convener: Mr. Karol Sarosiek, DVFG).

#### **WG 6 Working Group 6**

has responsibility for automotive LPG systems (Convenor Mr. Alberto Castagnini, Assogasliquidi - Landi Renzo).

#### **WG 7 Working Group 7**

has responsibility for operational requirements for both transportable LPG cylinders and static customer tanks (Convenor Mr. Olivier Aubertin, CFBP).

#### **WG 8 Working Group 8**

has responsibility for producing a standard for the requirements for the design, installation and subsequent maintenance of LPG pipework systems (Convenor Mr. Richard Turski, BP Europe SA).

#### **WG 9 Working Group 9**

has the responsibility for producing standards on LPG under the Recreational Craft Directive (Convenor Mr. George Nikolaou, Liquid Gas Europe).

#### **WG 10 Working Group 10**

has the responsibility for producing an Environmental document that can be referenced by all TC 286 standards (Convenor Mr. Joao Ferreira, ITG).

#### **WG 11 Working Group 11**

has the responsibility for producing a Technical Specification containing all the definitions to be used in TC286 standards (Convenor Mr T. Barnett, Liquid Gas Europe).





# DIRECTIVE ON THE INLAND TRANSPORT OF DANGEROUS GOODS

## & EUROPEAN AGREEMENT CONCERNING THEIR CARRIAGE BY ROAD

### BACKGROUND

This is one of the most important safety pillars in Europe and further on Transport of Dangerous Goods. The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) was signed at Geneva in 1957 under the auspices of the UNECE and entered into force in 1968, with the EU adopting uniform rules in 1994. It brought together all pre-existing EU legislation into a single text, and it regulates now the transport of dangerous goods by road (ADR), rail (RID) and inland waterways (ADN) within EU countries.

### IMPACT ON OUR SECTOR

Transport is a key activity in the LPG industry with significant safety and cost implications. The ADR Agreement ensures that the industry operates safely and efficiently across the LPG distribution chain. Its scope covers transport in bulk and cylinders. Liquid Gas Europe contributes to the legislative process through its presence at the UNECE RID/ADR/ADN Joint Meetings, WP.15 meetings and participation in related Working Groups. Through the development of LPG standards in CEN TC 286 and

their referencing in ADR, Liquid Gas Europe ensures that new technologies and new knowledge are fully reflected in the directive.

### FILLING OF LPG CYLINDERS BY PRIVATE INDIVIDUALS OR ENTERPRISES FOR THEIR OWN SUPPLY

The safety issues and questions brought to the attention of the delegates by Switzerland gave the opportunity to the association to present again its views, stated also in the related position paper in the past. The industry considers that in order to ensure maximum safety, the filling of LPG cylinders should always be carried out by properly trained professionals, in a facility designed and operated specifically for that activity. This recommendation is also fully in line with ADR, which states that “the filling of pressure receptacles may only be carried out by specially equipped centres, with qualified staff using appropriate procedures”. The association secured its position and the foundation was set for re-examination of the key text that allows varying interpretations resulting to unsafe practices.



## BLEVE PREVENTION IN RID/ADR

The Bleve prevention works that restarted in 2018 in Madrid and continued with discussions in RID/ADR Joint Meetings were closely followed by Liquid Gas Europe. With the risk assessment-based now decision-making principles, embedded in the new Guidelines that resulted from the ERA led workshops, it is expected that “quick win” preventive and mitigating measures will be proposed, including passive and active smart systems.

This initiative triggered also a further internal work in Liquid Gas Europe on the LPG Truck of The Future. All members are invited to keep close to their competent authorities for any local information and activities in support to Liquid Gas Europe’s contribution.

## STANDARDS FOR REFERENCING IN ADR AND APPROVALS FOR ADR 2019 and 2021

The serious issues related to the CEN consultant (HAS consultant now) reappeared, resulting to lack of assistance in the process. Ernst & Young, under the new EU Commission system, did not succeed in recruiting a transport of dangerous goods consultant. Nevertheless, under the new standards RID/ADR WG chair, the process was successfully managed towards approvals. Standards approved:

- **EN 1440:2016 +A1:2018**,  
LPG equipment and accessories – Transportable refillable traditional welded and brazed steel LPG cylinders – Periodic inspection

- **EN 16728:2016 +A1:2018**,  
LPG equipment and accessories – Transportable refillable LPG cylinders other than traditional welded and brazed steel cylinders – Periodic inspection

- **EN 12807: [2019]**  
LPG equipment and accessories – Transportable refillable brazed steel cylinders for LPG – Design and construction

- **EN 12493:2013+ A2:2018**  
(except Annex C) LPG equipment and accessories – Welded steel pressure vessels for LPG road tankers – Design and manufacture

However, the first two standards, together with some others approved for ADR 2019, were eventually not included, due to late CEN publication and they will be part of ADR 2021 with only one-year transition period.

## RAIL TRANSPORT SAFETY, RID

The work on Rail Transport Safety and particularly the checklists for the filling and emptying of gas tank-wagons that had started in 2016 with Liquid Gas Europe participating and contributing in the meetings were terminated in 2018 with the approval of these checklists, now published by OTIF. These documents serve as guidelines were developed in cooperation with CEFIC, EIGA, Liquid Gas Europe and UIP in the form of checklists for tank-wagons for gases to help fillers and unloaders of gas tank-wagons comply with RID safety obligations, particularly with respect to the leaktightness of tank-wagons.

## DOCUMENTS SUBMITTED BY LIQUID GAS EUROPE IN 2018

Documents submitted by the association and supported during the March and September Joint Meetings:

- Filling of LPG cylinders by private individuals or enterprises for their own supply
- Incidents with 2-piece EN 12245 Composite LPG Cylinders and Corrective Actions
- Request to update ADR 2019 with missing standards

## EXPERTISE SHARING WITH THE WIDER INDUSTRY

The focus on expertise sharing amongst the other industry associations continued in 2018 in the technical and safety area, namely CEFIC, EIGA, ECMA and others. Various projects and activities enjoyed the input of common expert resources to coordinate approach in key issues.

**“I am impressed by the amount of work Liquid Gas Europe puts into raising the reputation of the LPG industry as a responsible industry, striving towards the best operational and safety practices, standards and regulations.**

**I am very happy to bring my own contribution by being now the Chairman of the LPG Truck of The Future working group”**

**Sean McCourt**  
SHV Energy





# STANDARDS ISSUED IN 2018 BY THE LIQUID GAS EUROPE-SPONSORED CEN **TC 286 TECHNICAL COMMITTEE**

THE KEY ROLE OF THE LIQUID GAS EUROPE TECHNICAL FUNCTION IS TO SUPPORT THE NEEDS AND ACTIVITIES OF THE MEMBERS IN TECHNICAL, SAFETY AND SECURITY ISSUES AND ALSO AT TIMES, IN OPERATIONS.

## STANDARDS ISSUED IN 2018 BY THE LIQUID GAS EUROPE- SPONSORED CEN TC 286 TECHNICAL COMMITTEE

- EN 1440:2016 +A1:2018, LPG equipment and accessories – Transportable refillable traditional welded and brazed steel LPG cylinders – Periodic inspection
- EN 16728:2016 +A1:2018, LPG equipment and accessories – Transportable refillable LPG cylinders other than traditional welded and brazed steel cylinders – Periodic inspection
- EN 12493:2013+ A2:2018 (except Annex C) LPG equipment and accessories - Welded steel pressure vessels for LPG road tankers - Design and manufacture

## ISO STANDARDISATION ACTIVITIES, TC 58 (GAS CYLINDERS)

Liquid Gas Europe, together with the WLPGA, continued the monitoring of LPG related ISO standardisation, through the annual plenary meetings of the ISO

TC 58 Technical Committee and subcommittees on Design, Fittings and Operational requirements.

## LIQUID GAS EUROPE: A TECHNICAL HELPDESK FOR THE EUROPEAN LPG SECTOR

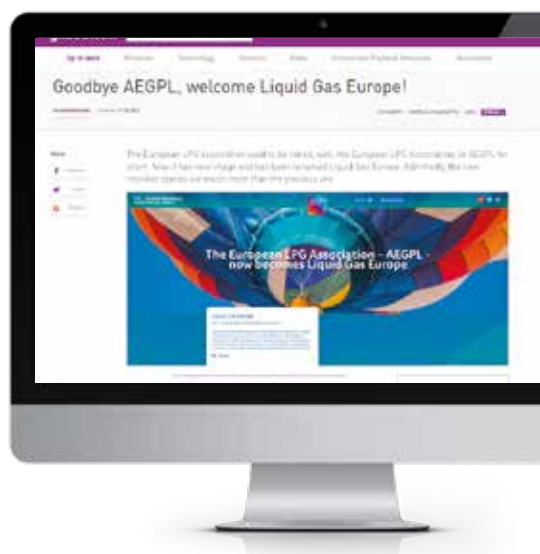
The technical helpdesk continued offering its services to the Liquid Gas Europe members through 2018, amongst the subjects handled in 2018:

- Passive fire protection for large plants LPG storage tanks
- Regulations in Europe on entry of spark ignition engine vehicles in LPG industrial installations
- Periodic inspection of composite cylinders
- Requirements to establish an LPG cylinder business in European countries
- + European Survey on PRVs and traditional steel 10 to 15 kg cylinders
- Temperature adjustment at customers' discharge phase and in particular Autogas stations



**“Being part of the re-branding process for the European LPG Association was a unique opportunity to witness how successful our industry can be when we align behind an appropriate effort. The success of this initiative just goes to show how we all benefit when we work together.”**

**Paul Ladner**  
UGI International



## OUR REBRANDING

**AFTER 50 YEARS UNDER THE AEGPL IDENTITY, 2019 MARKED THE REBIRTH OF AN ASSOCIATION WITH A NEW NAME. WE USED OUR 50TH ANNIVERSARY TO RE-BRAND THE ASSOCIATION, CHANGING NAME, LOGO, COLOURS, ETC. AND LIQUID GAS EUROPE WAS BORN!**

We worked in close cooperation with our members, having several brainstorming sessions and exchanges until we reached the final result. Our new name and visual identity immediately explain what we do, and our new image shows how dynamic and energetic our industry is.

We are delighted with the final result and looking forward for many more years of success!



# REBRANDING





# BRUSSELS

## COCKTAIL





## BRUSSELS EVENT

**LIQUID GAS EUROPE ORGANISED A COCKTAIL PARTY IN BRUSSELS IN SEPTEMBER, TO CELEBRATE OUR 50TH ANNIVERSARY AND TO PRESENT THE NEW NAME AND IDENTITY OF THE ASSOCIATION.**

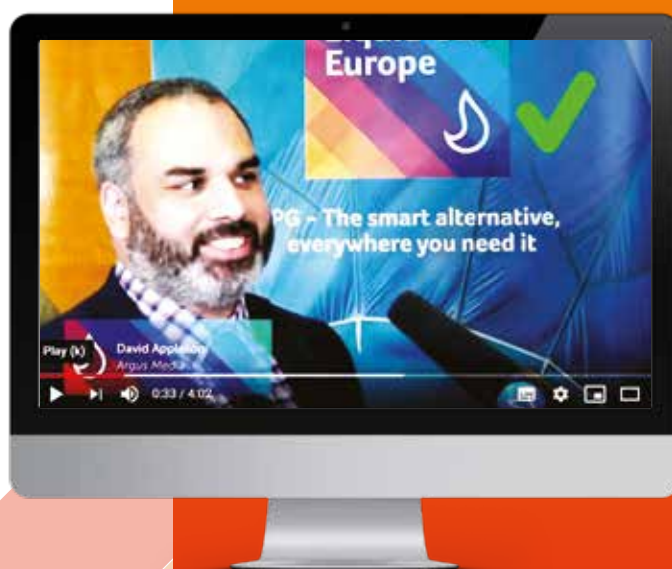
This was a unique opportunity to bring together our Brussels friends and partners and our members, and to network in a relaxed atmosphere!



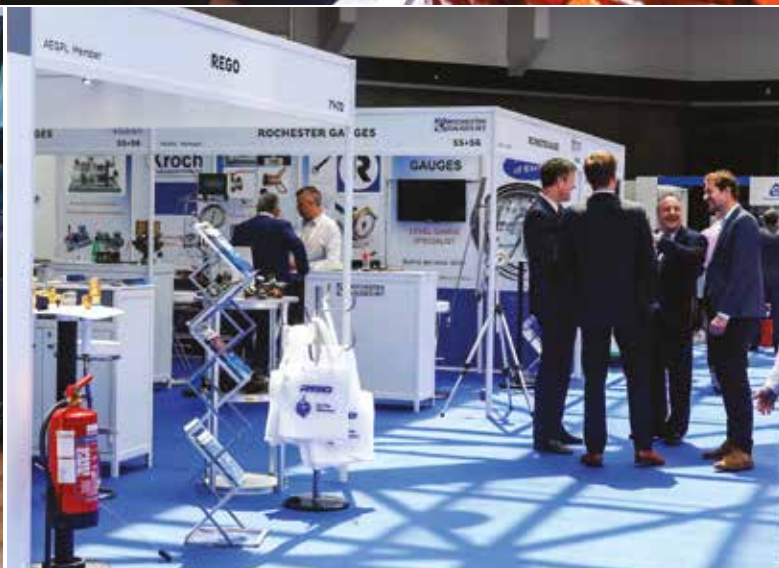
## QUIZ VIDEO

**HOW WELL DO OUR MEMBERS KNOW THE EUROPEAN LPG INDUSTRY, AND THE EUROPEAN LPG ASSOCIATION?**

We decided to have a little quiz which you can find in our website and in our YouTube channel!



...  
PARTY



# EUROPEAN LPG CONGRESS





**“The Congress in Monaco was unique! As a newcomer, I was very impressed by the high quality of the panels and discussions. And then there was the dinner at the Monaco Yacht Club – what a fantastic venue and the perfect place to blow the candles to the European LPG Association for its 50th Anniversary!”**

**Anne Sig Rosvall**

Drivkraft Danmark, Danish LPG Association

## EUROPEAN LPG CONGRESS

**THE 2018 EUROPEAN LPG CONGRESS TOOK PLACE IN THE MOST EXCLUSIVE EUROPEAN LOCATION – MONACO!**

Once more our event gathered the full European LPG industry in a vibrant 1000 sqm exhibition where 94 companies showcased the most modern and innovative products. The exhibition was opened by HSH Prince Albert of Monaco who graced us with his presence and showed great interest in the benefits brought forward by LPG.

High level panels also discussed the most recent trends and the state of the LPG market, in the presence of over two hundred attendants. The experts discussed issues like the relationship with natural gas; policy and innovation; or the many faces of LPG while the final roundtable gathered the insights from all sessions and discussed the To Do List for the European LPG industry.

On the social side, our members and partners had the privilege of relaxing and networking in the exclusive venues of Restaurant A'Trego, and the Monaco Yacht Club – where we hosted our Gala Dinner celebrating the 50th Anniversary of the Association.

# 2018

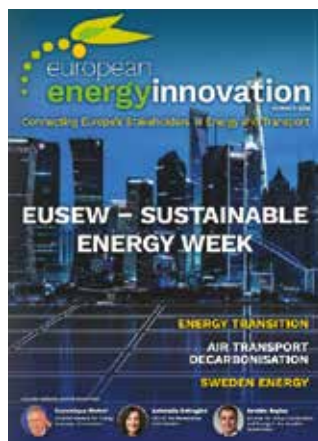




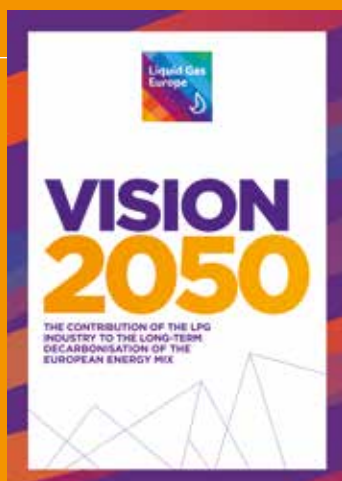
## IN THE PRESS

**ONCE MORE WE HAVE SHARED OUR ACTIONS AND OUR VIEWS WITH THE MEDIA, PUSHING FOR THE BENEFITS OF LPG TO BE WIDELY KNOWN AMONG OUR AUDIENCES.**

Our policy work is often complemented by our media work, and here are some of the snippets of the media coverage we achieved in 2018.



## LATEST PUBLICATIONS



# NATIONAL ASSOCIATION ADVOCACY AWARD

THE WINNER OF THE SECOND EDITION OF THE  
NATIONAL LPG ASSOCIATION ADVOCACY AWARD  
WAS THE UK LPG ASSOCIATION - UKLPG.

The Jury rewarded UKLPG's 'Gas for Off-Grid Britain'  
Clean Growth Strategy lobbying programme, which  
aimed at promoting the advantages of LPG over its  
high carbon competitor fuels coal and oil, and secure  
policy decisions that can support market growth.



## LIQUID GAS EUROPE ON STAGE







# LIQUID GAS EUROPE

# 2019



LIQUID GAS EUROPE

# MEMBERS 2019

## National Associations

### AUSTRIA

Österreichischer Verband für Flüssiggas (ÖVFG)  
[www.fluessiggas.eu/der-oevfg](http://www.fluessiggas.eu/der-oevfg)



### BELGIUM AND LUXEMBOURG

Federatie Butaan Propaan/Federation  
Butane Propane (FeBuPro)  
[www.febupro.be](http://www.febupro.be)



### CZECH REPUBLIC

Česká asociace LPG (CALPG)  
[www.calpg.cz](http://www.calpg.cz)



### DENMARK

Drivkraft Danmark  
[www.drivkraftdanmark.dk](http://www.drivkraftdanmark.dk)



### FRANCE

Comité Français du Butane  
et du Propane (CFBP)  
[www.cfbp.fr](http://www.cfbp.fr)



### GERMANY

Deutscher Verband Flüssiggas (DVFG)  
[www.dvfg.de](http://www.dvfg.de)



### HUNGARY

Magyar PB Gázapari Egyesület (MPE)  
[www.mpe-pbgaz.hu](http://www.mpe-pbgaz.hu)



# National Associations

## IRELAND

Irish LP Gas Association (ILPGA)  
[www.ilpga.ie](http://www.ilpga.ie)



## ITALY

Assogasliquidi Federchimica  
<https://assogasliquidi.federchimica.it>



## NETHERLANDS

Vereniging Vloeibaar Gas (VVG)  
[www.vvg-nederland.nl](http://www.vvg-nederland.nl)



## NORWAY

Drivkraft Norge  
[www.drivkraftnorge.no](http://www.drivkraftnorge.no)



## PORTUGAL

Associação Portuguesa  
 de Empresas Petrolíferas (APETRO)  
[www.apetro.pt](http://www.apetro.pt)



## SLOVENIA

GIZ UNP



## SPAIN

FORMER  aoglp

Asociación Española de Operadores  
 de Gases Licuados Del Petróleo (AOGLP)  
<https://gaslicuado.org>



## SWEDEN

Energigas Sverige  
[www.energigas.se](http://www.energigas.se)



## UKRAINE

Ukrainian LPG Association (ULPGA)  
[www.uasg.com.ua](http://www.uasg.com.ua)



## UNITED KINGDOM

UKLPG  
[www.uklpg.org](http://www.uklpg.org)



# LPG Distributors

Ankorgaz

[www.ankorgaz.com](http://www.ankorgaz.com)



Autogas Nord

[www.autogasnord.it](http://www.autogasnord.it)



Butagaz

[www.butagaz.fr](http://www.butagaz.fr)



Coral Gas

[www.coralgas.gr](http://www.coralgas.gr)



DCC Energy LPG

[www.dccenergylpg.com](http://www.dccenergylpg.com)



Repsol

[www.repsol.com](http://www.repsol.com)



SHV Energy

[www.shvenergy.com](http://www.shvenergy.com)



UGI Corporation

[www.ugiintl.com](http://www.ugiintl.com)



V-Gas Bulgaria

[www.v-gas.bg/en](http://www.v-gas.bg/en)



Veroniki Holding

[www.veronikiholding.it](http://www.veronikiholding.it)





# Affiliates



Algas-SDI  
[www.algas-sdi.com](http://www.algas-sdi.com)



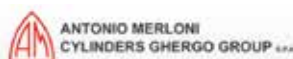
ITG  
[www.itg.pt](http://www.itg.pt)



Amtrol Alfa  
[www.amtrol-alfa.com](http://www.amtrol-alfa.com)



Kosan Crisplant  
[www.kosancrisplant.com](http://www.kosancrisplant.com)



Antonio Merloni  
[www.amcylinders.com](http://www.amcylinders.com)



Lloyd's Register Consulting Energy  
[www.lr.org/en/energy](http://www.lr.org/en/energy)



Argus Media  
[www.argusmedia.com](http://www.argusmedia.com)



Mann Tek  
[www.mann-tek.com](http://www.mann-tek.com)



Camping Gaz  
[www.campingaz.com](http://www.campingaz.com)



Presta Cylinders  
[www.prestacylinders.lu](http://www.prestacylinders.lu)



Cavagna Spa.  
[www.cavagnagroup.com](http://www.cavagnagroup.com)



Rego  
[www.rego-europe.de](http://www.rego-europe.de)



Charles André  
[www.charlesandre.com](http://www.charlesandre.com)



Rochester Gauges Int.  
[www.rochester-gauges.be](http://www.rochester-gauges.be)



Clesse Industries  
[www.clesse.eu](http://www.clesse.eu)



Rovip  
[www.rovipgas.com](http://www.rovipgas.com)



Corken  
[www.corken.com](http://www.corken.com)



Sensile Technologies  
[www.sensile.com](http://www.sensile.com)



Cotrako S.R.L.  
[www.cotrako.it](http://www.cotrako.it)



Smart Cylinders  
[www.smartcylinders.com](http://www.smartcylinders.com)



GLI International  
[www.gli-gaz.com](http://www.gli-gaz.com)



Sibur International  
<https://sibur-int.com/>



Hexagon Ragasco  
[www.hexagonragasco.com](http://www.hexagonragasco.com)



Voigt  
[www.voigtsoftware.com](http://www.voigtsoftware.com)



IHS Markit  
[www.ihsmarkit.com](http://www.ihsmarkit.com)



World LPG Association  
[www.wlpga.org](http://www.wlpga.org)



Zinacor  
[www.zinacor.com](http://www.zinacor.com)



# 32<sup>nd</sup> World LPG Forum & European Congress

24<sup>th</sup>-26<sup>th</sup> September 2019

## AMSTERDAM



Liquid  
Gas  
Europe





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# Liquid Gas Europe

LPG – The Smart  
Alternative,  
Everywhere  
You Need It

