

ILPGA Automotive Briefing for Oireachtas Members – August 2009

Historical Background: *In the 1980s, the Irish Liquefied Petroleum Gas Association (ILPGA) was heavily involved in the promotion of LPG as a transport fuel and supported an LPG infrastructure of over 400 petrol station forecourts dispensing LPG nationwide. However, for a number of reasons, the market reduced considerably and this infrastructure has gone into significant decline.*

Liquefied Petroleum Gas (LPG) - A Central Role in 2009 and Beyond

The LPG industry has an immediate and major role to play in Ireland's transport industry, due to:

- the successes in Europe of promoting LPG as a transport fuel (*see page 2*);
- the significant environmental benefits which can assist reductions in CO₂ emissions;
- the savings and benefits available to the consumer;
- the recognition given to LPG usage in the Government's *2020 Vision* document (reference in Section 6.5.2, *Alternative Technology*, to the potential role of LPG as a possible part of the solution to the problems posed in seeking alternative ways of travelling);
- LPG's full security of supply and substantial reserves due to its dual origins (66% from gas field extraction, 34% from crude oil refining); and
- LPG's imports being geographically diversified, with only 1.7% of Europe's total consumption originating from the Middle East;

There is now a global recognition that the biofuels solution to transport problems is not without significant flaws, particularly its effect on food production and cost. In light of this, the Government has taken a decision to abandon plans to have biofuels comprise 5.75% of all transport fuel by 2010. As a result, there is an obvious need to find alternative solutions. LPG has been recognised in the *2020 Vision* document as one such solution, and this recognition should be taken to the next stage by offering the same incentives to LPG as those offered to biofuels (see section on '*Energy Saving and Saving to the Consumer*' below).

ABOUT THE ILPGA: *The ILPGA (Irish Liquefied Petroleum Gas Association) is a representative body comprised of companies who distribute LPG (butane and propane) in Ireland to domestic, industrial and automotive customers. The ILPGA is a member of the AEGPL - the European LP Gas Association - and has worked closely with the AEGPL on issues relating to technical standards for the industry and in making the case for increased use of LP Gas throughout the European Union. AEGPL represents 23 national LPG federations in Europe. Other members are the LPG pan-European distributors and corporations with an extensive interest in LPG in Europe from a production, transport, distribution or application point of view. The AEGPL also allocates specific resources for the development of LPG in the automotive field.*

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European Experience and Successes

The following table indicates the number of LPG-fuelled vehicles in major European countries:

Country	2003	2004	2005	2006	2007
Poland	1,100,000	1,450,000	1,770,000	1,980,000	2,050,000
Turkey	1,000,000	1,250,000	1,400,000	1,600,000	2,000,000
Italy	1,041,496	1,120,000	990,000	950,000	991,699
The Netherlands	290,150	260,000	248,000	275,000	270,000
Czech Republic	145,000	170,000	200,000	250,000	250,000
Bulgaria	195,000	198,000	216,000	216,000	216,000
Lithuania	140,000	170,000	175,000	175,000	175,000
France	180,000	170,000	160,000	150,000	140,000
United Kingdom	105,050	117,000	128,000	138,000	144,000
Romania	25,000	45,000	125,000	175,000	180,000
Germany	15,000	30,000	65,000	125,000	200,000

The Rise of LPG Usage in Other European Countries

Germany: The numbers of LPG vehicles has been rising rapidly in recent years (65,000 in 2005; 125,000 in 2006; 200,000 in 2007 and almost 280,000 in 2008. Projections are for figures to reach 430,000 by 2010 and 1million by 2015.

Belgium: The Belgian Government has taken advantage of the derogation allowed in the Energy Taxation Directive to apply a zero rate of excise duty to LPG used for automotive purposes.

Italy: Federal and Regional Government provide incentives up to 75% of conversion cost of private vehicles and 25% of company cars. In response to concerns over urban air quality, the Italian authorities have implemented measures to promote the use of gaseous fuels. As a result, 190,735 Autogas-fuelled vehicles arrived on the market in 2007 alone, with 220,000 more expected by the end of 2008.

France: A fiscal incentive of up to €2,000 is available for the purchase of an OEM (Original Equipment Manufacturer) vehicle or conversion of vehicle less than 3 years old.

Poland: Autogas accounts for nearly 15% of the road transport fuel mix and represents an essential component of the national fuel portfolio.

Turkey: The number of LPG vehicles increased from 800,000 in 2004 to 1.8million in 2007, mainly driven by running cost savings of about 35% vs petrol. Indicators are that car manufacturers will double this number in the coming years – all this in a market where diesel is 20% cheaper and biofuels have a lower tax applied!

Environmental Benefits

- LPG cars emit approximately **1.2 tonnes of CO₂ less** than their petrol equivalent¹. With over 4.5million LPG cars in Europe (see table, page 2), this equates to a very significant saving of CO₂ when compared to the petrol equivalent.

Energy Saving and Saving to the Consumer

- Typical energy saving of LPG-powered vehicles versus petrol is 5.4 kWh/100 km, which equates to a saving of approximately 5%.² There is, also, an associated typical CO₂ saving of 12%, as a minimum. This represents a typical annual saving per vehicle of up to 1.62 MWh and 1.2 Tonne of CO₂, based on 34,000 km/annum.

- As these figures have been established over a long period of time and, particularly, as LPG has been shown not to have a downside similar to that now being demonstrated by some of the biofuels, the ILPGA believes that vehicles using the product should be given similar incentives to these alternatives vis-à-vis Vehicle Registration Tax and Annual Road Tax.

- If we compare a Volvo 2.4 litre bi-fuel engine running on petrol or LPG at an annual travel distance of 34,000km, the saving to the consumer is shown in the following table:

LPG Fleet Price per Litre	LPG 12.7 L/100km	Petrol 9.5 L/100km	Saving per Vehicle Per Annum
70cent	€3,022	€3,769	€747
60cent	€2,591	€3,769	€1,178
50cent	€2,159	€3,769	€1,610

Petrol price based on typical August prices of 116.7 cpl (AA average price for August: 116.7 cpl)

¹ based on actual figures provided by Volvo for the S60 model which was available from the manufacturer with factory fitted LPG option.

² Based on information provided by conversion equipment manufacturers

The Way Forward

There is potential for the broad use of LPG in the transport sector. Below are a number of **suggested Government initiatives** that could help to bring the Irish market back in line with other EU countries:

- 1) Commitment to ensure that LPG is maintained at the current rate of excise duty for the next 10 years (as is the case in Germany), with the relativity vis-à-vis petrol maintained or enhanced;
- 2) Application of the lowest rate of road tax to clean fuel vehicles (CO₂ emission band) for 3 years in order to encourage fleet operators or private motorists to convert to clean fuel vehicles;
- 3) Introduction of accelerated allowances for companies converting their fleet to LPG /other clean fuels;
- 4) Inclusion of bi-fuel vehicles (using clean fuels) in the same VRT category as hybrid and Bio-ethanol fuelled cars;
- 5) Infrastructural development: Based on information received recently from the AEGPL, the ILPGA is hopeful that initiatives will be taken by the European Institutions to promote Autogas and other gaseous alternative fuels as part of the solution to reducing Europe's dependence on petrol and diesel in the transport sector. We would request that Ireland mirrors these initiatives if/when they take place.

- The ILPGA is further encouraged with the position taken by Ireland vis a vis the CO₂ emissions from cars dossier COM (2007) 856. ILPGA understands that Ireland spoke out strongly in support of this proposal at the Ambassadors meeting where it was decided to accept an amendment calling for the CO₂ performance figures for bi-fuel vehicles to be based on gaseous fuels (including LPG) emissions from 1st January 2010. More recently, this amendment was adopted by the European Commission and Parliament.

- The numerous advantages of Autogas are recognized and reflected in the EU's energy taxation framework, which permits Member States to apply an excise rate of zero.

- The following comments were made by a senior government technical advisor at the start of 2008: *“Gas is the cleanest fossil fuel available to us, and, if there has to be more fossil fuel generation in the supply mix, then that part of energy policy relating to sustainability of energy supply would promote the use of gas over other fossil fuels.”* This same rationale is equally applicable to the use of gases, such as LPG, in other applications, including automotive.

- Re-establishing a successful LPG industry in this country - a development that will inevitably generate jobs nationwide - will involve:
 - **Development of appropriate infrastructure (estimated at €20,000 per filling station)**
 - **Training of conversion specialists**
 - **Encouragement of the consumer by the ILPGA, Government and key opinion leaders**

The LPG industry is fully committed to investing in an appropriate infrastructure if a long-term Government initiative can be introduced that is supportive of the proposals above. The ILPGA has created a thriving LPG industry in the past, and, with assistance, the opportunity now exists to do so again.
