



WORLD LP GAS ASSOCIATION

World LP Gas Association
9, rue Anatole de la Forge, 75017 Paris, France
Phone: +33 (0)1 58 05 28 00 Fax: +33 (0)1 58 05 28 01
Web: www.worldlpgas.com – E-mail: association@worldlpgas.com

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Inside this issue:

Policy	2
Manufacturers	3
Europe	4
Asia Pacific	5
Americas	6
News in Brief	7
Network News	8

EU Governments Back Autogas

Following on from the support already given in July (*see AU September 2002*) for the inclusion of autogas in any future EU Alternative Fuels Strategy, the European Parliament has once again endorsed autogas' credentials in another Parliamentary Report adopted in October. Meanwhile, the Council of the European Union - consisting of the 15 Governments of the EU - has also publicly underlined the need to ensure that 'automotive LPG' is included in the EU's attempts to define an alternative fuels policy towards the year 2020. Meeting in Brussels on November 18th, the EU's General Affairs Council adopted its common position on the proposed Biofuels Directive. In reference to autogas, the Council concluded that "Increased use of biofuels for transport, without ruling out other possible alternative fuels, including automotive LPG and CNG, is one of the tools by which the Community can reduce its dependence on imported energy and influence the fuel market for transport and hence the security of energy supply in the medium and long term. However, this consideration should not detract in any way from the importance of compliance with Community legislation on fuel quality, vehicle emissions and air quality". The Council's common position has been sent back to the EP for its second reading to be completed within three months. The support received so far from both the Parliament and EU Governments brings closer the possibility of EU legislation being developed to promote autogas as an alternative fuel, but there is still some way to go before such a possibility becomes reality.

There was more good news from Europe on the autogas front with the announcement from the Spanish Government that it will lower the taxation of autogas to 125 € per tonne. The change in tax status is due to come into effect in 2003 and will mean that the autogas market can be developed for other vehicles apart from taxis.

What's New

- GAIN Council Meeting, 3 February 2003, Paris
- 16th World LP Gas Forum, 15-17 October 2003, Santiago, Chile
- Visit our website: www.globalautogas.org

New Opportunities for Autogas

A well-attended and lively final session dedicated to examining the new challenges and opportunities for growing the autogas market was held during the World LP Gas Forum recently held in Bangkok. Chaired by Alan Beale, GAIN Council Chairman, the session covered topics relevant to a variety of autogas sectors and regions. Bruno Motta of Shell outlined some of the ways in which government policy changes could (and should) positively affect the autogas market and drew some illustrative lessons from GAIN's 2002 lobby initiative in the EU. Moving on to market development and autogas engines, Vinod Duggal updated the meeting on the progress of Cummins' new 5.9 LPG Plus Engine. Pearl Kamdar representing new WLPGA member IMPCO, showed how severe environmental problems in Asia could be alleviated by the development of LP Gas technology for two and three wheeled vehicles. Alan Beale concluded by stating that the presentations given provided encouraging examples of how individual industry players were promoting autogas in several markets. GAIN will support these efforts but individual companies would also have to work hard to convince governments and regulators of both the environmental and economic benefits of autogas.

Policy

Safety First

In the last issue of Autogas Updates (30 September), we reported that safety tests conducted by Birmingham Trading Standards (BTS) revealed that 95% of *unapproved* conversions in the U.K were unsafe and could create a higher risk of accidents occurring. Naturally, the best way to ensure safety is to work with an approved equipment installer—and none of the vehicles tested in the report were approved conversions. To ensure that motorists better understand the safety features of autogas, and to preserve autogas' enviable safety record, *Clean Vehicles*, a leading independent source of information on low emission vehicles has advocated a number of key safety features that should be demanded from professional vehicle converters, including:

- *Approved LPG tank with safety valve.* In the event of an accident involving fire, excess pressure may gather in the tank unless there is a safety valve enabling the gas to escape.
- *Instalment of Isolation valve.* An isolation valve should be fitted either in the engine compartment or at the tank to enable the gas supply to be turned off in an emergency. Without a valve there is no means of switching off the fuel supply.
- *Proper wiring and insulated connections.* Electrical wiring connected to the autogas system should be securely loomed, clipped or tied back to prevent it from chaffing on adjacent parts. More importantly insecure, exposed electrical connections in proximity to gas may result in fire or even an explosion.
- *Supported fuel pipe.* LPG pipes should be supported at minimum intervals of 600mm to protect them from excessive vibration and strain. Unsupported fuel pipes in the engine compartment are likely to catch on moving parts. Pipes that are not supported can easily be damaged, resulting in subsequent gas leakage.

PEOPLE: Population Exposure to Air Pollutants in Europe

The European Commission has launched a campaign to measure the amount of pollution caused by traffic in European cities. The PEOPLE (Population Exposure to Air Pollutants in Europe) project recognizes that 70% to 80% of pollution comes from road traffic. The project is monitoring air pollution at 50 outdoor sites, such as streets and parks, and 50 indoor sites, such as offices and bars. The programme is designed to help policy-makers fine tune traffic and transport policies, as well as provide environmental and health professionals, and the general public with a comprehensive snapshot of air pollution in EU cities and the impact on public health. The first report will be produced in February next year. The Commission will conduct similar studies in Bucharest, Budapest and Madrid, followed by Belgrade, Berlin, Dublin, Ljubljana, Paris, Rome and Vienna later in 2003.

India: TERI advocates more aggressive emissions standards

The Tata Energy Research Institute (TERI) recently provided comments on the Mashelkar Committee report on the National Auto Fuel Policy, which recommends enforcing Euro-III emission norms by 2005 and Euro-IV norms by 2010 to reduce vehicular pollution. TERI has taken the position that India should move on directly to Euro-IV norms by 2005. "We recommend a faster approach, as going from Euro-II to Euro-III and then Euro-IV is a waste of resources and time," Mr R.K. Pachauri, Director, Tata Energy Research Institute and Chairman of Inter-Governmental Panel on Climate Change, said. With Europe targeting to reach Euro IV norms by 2005 and Asian countries targeting for 2006-07, it makes sense for India to advance the date too.

IEA report features autogas

A new publication from the International Energy Agency (IEA), "*Bus Systems for the Future, Achieving Sustainable Transport Worldwide*", takes a detailed look at clean fuels and advanced technologies for the next generation of buses. The study notes that LPG may be the easiest alternative fuel to commercialise, considering performance, cost, range, and emissions, and that in many countries and cities distribution systems are well established and supplies of LPG seem adequate for niche markets in the bus sector. It also points to successful applications in cities such as Vienna, Austria. However, the study notes that until recently the LPG industry has not consistently promoted this fuel, which will be necessary for expanded growth.

Click on - <http://www.iea.org/> for further details.

Hindustan Motors launches autogas options

Hindustan Motors plans to launch autogas versions of the 'Ambassador' and the 'Rural Transport Vehicle (RTV)', a move designed to help the company arrest declining sales of the car. Autogas approval for both vehicles was received from the Pune-based Automotive Research Association of India (ARAI) and commercial sales of the cars are to begin this year. The approval



was given for passenger carrier, goods carrier and ambulance versions of the RTV which is manufactured with technology from OKA Motors of Australia. The autogas Ambassador comes fitted with an LPG kit from Italy's Landi Renzo. Both the autogas vehicles will cost less than the existing CNG versions.

The company acknowledged that sales of both vehicles would depend on the establishment of more autogas fuelling stations in the country. Since the infrastructure is still in early development, HM Motors is encouraging the government to immediately take steps toward expanding commercial dispensation of autogas, stating that is much cleaner, safer and cheaper than petrol. More information available at <http://www.hindustan-motors.com/>

Peugeot partners with Allparts in the UK

Peugeot recently delivered 17 'Partner' vans to Allparts Automotive, an express delivery company in the UK. The vans are all 1.4-litre petrol with an autogas conversion package installed by Palmers of Watford using AG Autogas systems. Mark Darvill, managing director of Allparts, said that converting to autogas will significantly reduce fuel costs and make the company eligible for government grants available for companies using environmentally friendly fuel.

Renault introduces a new autogas model



In France, Renault has introduced factory-built autogas versions of the Laguna hatchback and Estate. The cars feature a specifically developed injection system and a new 61 litre capacity fuel tank which is mounted underneath the floor to preserve luggage space. The performance drop when running on autogas is negligible at less than 5%. A 70 litre petrol tank makes the Laguna a bi-fuel vehicle, capable of long range between fill-ups.

Renault had a 53% share of the 7,165 new LPG vehicles sold in France last year, and plans to offer the car to fleet customers only. The price of the LPG Laguna in France is 20,450 Euros, a 1,600 Euro increase over the petrol version. See <http://www.renault.com/gb/produits/laguna2break.htm> further information.

Cummins Westport develops new autogas engine

During the recent World LP Gas Forum in Bangkok, the joint venture of Cummins and Westport provided details on the latest developments in its new B5.9 LPG Plus engine which is due for launch in April 2003. The new product is an advanced version of the Cummins Westport B5.9 LPG engine. The new product has been designed to deliver improved performance and has a new electronic control module and vaporiser design. Better performance on emissions is also featured in the new product with leaner combustion technology and improved catalyst development for HC control. Specifically, the product aims to meet NOX, THC and PM emissions levels within the design target for EPA/CARB 10/02 requirements. Research support for development of the new product was received from WLPGA member PERC and the Field Test Start was scheduled for November.

The existing B5.9 LPG engine meets the pre-10/02 EPA/CARB standards by some way as it is capable of meeting emission levels 10 times lower than PM standards, and 15 times lower than CO standards. The B5.9 LPG engine has been in production since 1997 and has a horse power rating of 195. Over 500 engines have been built and used in a number of Heavy Duty Vehicles including school buses, yard spotters, snow groomers and LPG delivery trucks. The latest product development was presented at the special Autogas Session during the recent World LP Gas Forum, where company spokesman Vinod Duggal stated that the new engine was part of Cummins and Westport's aim « to develop, support and market comprehensive product line of low emission, high performance engines and ancillary products using gaseous hydrocarbon fuels ».

Europe

Black cabs use clean fuels



Powertrain Ltd. Has recently announced a pilot programme to encourage Birmingham's taxi drivers to contribute to clean air by reducing their vehicle emissions. In cooperation with Birmingham City Council and as part of the 'Don't Choke Britain Events', the company inaugurated the first officially licensed cab in Birmingham to run on autogas. The K Series engine with autogas conversion is 50% quieter than current taxi diesel engines and reduces CO₂ by 29%, NO_x levels by 95% and particulate emissions by 92% compared to the current diesel taxis in Birmingham. There are approximately 1,100 of these Hackney carriage vehicles identified in Birmingham for

possible conversion. Powertrain Ltd will begin by inviting all drivers of black cabs in Birmingham to a presentation on the economic and environmental benefits of the K Series autogas conversion. Conversions will be supported by the Energy Savings Trust, a government agency established to approve and provide grants for such conversions. This latest application shows that autogas taxis are increasingly recognized as having a positive impact on reducing air pollution as well as being cheaper to operate.

Proton vehicles available in the UK

Proton is offering its Impian 1.6 saloon with a bi-fuel (autogas/petrol) conversion, at a premium over the standard model (from £12,025) of just under £1000, as it qualifies for a 60 percent Powershift grant. The bi-fuel Impian 1.6, which emits just 160 g/km of carbon dioxide, also meets the standard for a Band 4 emissions rating, meaning that it will be exempt from the forthcoming central London congestion charges. Proton is also offering bi-fuel versions of its smaller Wira range, which qualify for a 50 percent grant towards conversion.



Lex Vehicle Leasing showcases autogas savings

Fleets should not expect maintenance costs to soar if they add autogas vehicles cars to their choice lists, according to analysis by Lex Vehicle Leasing on the maintenance costs for its mixed fleet of 600 autogas cars and light vans. Lex found autogas identical to comparable petrol models in terms of reliability, engine wear and tear, and general operation. Moreover, no customer has criticized the vehicles and the bigger fleets are seeing the greatest benefits because they have onsite autogas storage and fueling facilities, so their cars or vans are spending more time running on autogas than petrol.



Lex recommends that fleets stick to autogas vehicles with a full manufacturer warranty. This provides peace of mind at service time and means the manufacturer will have carried out the relevant tests to ensure the conversion meets strict quality and safety standards. Lex also points out that a key issue in an autogas vehicle contract is its lower residual (resale) value, since it's currently more difficult to pass on second-hand autogas vehicles. The market is mostly limited to small tradesmen who can't afford a new autogas van, but would like to benefit from using autogas. (see related article on autogas auctions, page 7). See the following weblink for full details - http://www.lvl.co.uk/m_index.htm.

Polish state bus company to converts to Autogas



PKS, the Polish state bus company, is planning to convert 30 buses to run on autogas in the Szczecin area. PKS is currently negotiating with autogas system manufacturer, Eko-Natura from Gliwice, and a final decision is expected soon. The value of the future contract is expected to be PLN 1.2 million and realisation of the contract would be spread over the next two years. The plans are to begin with the conversion of four buses this year. Eko-Natura, which also specialises in building autogas stations, plans to build a station in Gliwice next year as well.

India: Yash Propane to convert more vehicles to autogas

In India, Yash Propane Auto Energy (YPAEL) recently received government approval to make autogas kits for vehicles with engine capacities between 600 to 1000cc. YPAEL Director (Technical) M K Gulati stated that the domestically produced kits would cost about Rs 18,000 as compared to CNG kits which cost around Rs 34,000. They would also provide converted autogas motorists with three times more mileage than CNG vehicles. YPAEL, along with its sister company Mahaveer Cylinders, will produce the autogas kits and tanks and the company will be the sole supplier of the tanks to agencies dealing with approved auto gas kits.

The company has also appointed 12 dealers in the National Capital Territory (NCR) region to market and fit the Green Energy Base System (GEBS) - Generation One kits. A number of cars and three-wheeler manufacturers have obtained homologation for vehicles with autogas kits and some imported and indigenous retrofit kits have also been approved.

Clean Up Australia campaign champions autogas

A report released on 14 November 2002, by the Australian LPG Association demonstrates that the use of clean alternative fuels like autogas can have important environmental benefits, including cleaner air and reduced greenhouse emissions. Mr. Ian Kiernan, Chairman of Clean Up Australia, launched the report, *LPG As An Automotive Fuel: An Environmental and Technical Perspective 2002* at a function at NSW Parliament House. Mr. Kiernan said, "Everyone should be concerned about clean air and the biggest threat to our clean air is the pollution from motor vehicles". "The use of clean fuels like autogas can produce a big improvement in the quality of the air we breathe."

Mr. Ray North, the General Manager of the Australian LPG Association, said "Governments at all levels need to show environmental leadership by introducing and mandating autogas vehicle use in their fleets." The report shows that autogas vehicles emit significantly less pollution than their petrol and diesel fuelled counterparts: up to 15% less greenhouse gas; 50% less particulates; 60% less carbon monoxide; 33% less oxides of nitrogen; virtually zero evaporative emissions of hydrocarbons; and 80% less air toxics like benzene and 1,3 butadiene. The report also highlights the extensive network of more than 3,500 service stations across Australia selling autogas. See <http://www.autogaschallenge.com.au/content.htm> for full details.

Opportunity in Seoul

Air pollution problems in Seoul have led the Environment Ministry to consider new programs to improve the atmosphere in the metropolitan area. The nation's particulate and nitrogen oxide levels are 1.7 to 3.5 times higher than in major industrialized cities, with the main culprits being vehicles that burn diesel fuel. These diesel cars, mostly large trucks and buses as well as recreational vehicles, account for 29 percent of all cars but are responsible for 52 percent of pollution. Their undue proportion is due to abnormally cheap diesel fuel prices, which remain at 56 percent of gasoline. Poor fuel quality is also a big problem.

Situations like this present an ideal opportunity for the LP Gas industry to communicate to the government the benefit of policies designed to take advantage of the clean air characteristics of autogas. The recent study from the WLPGA, *Clearing the Air: A Technical Guide on Autogas Emissions*, provides a useful tool for educating policy makers on the environmental benefits of autogas over other fuels. Copies of the above reports can be ordered by sending an e-mail to publications@worldlpgas.com.



Opportunity in Bangalore

The Karnataka Transport Department has drawn up a plan to bring down the pollution levels in Bangalore city. The plan includes synchronisation of traffic signals and programmes to increase awareness of the dangers posed by pollution from vehicles. But the Department said that vehicles and autorickshaws are the prime culprits, stating that if all 70,000 autorickshaws were to convert to autogas, pollution would be dramatically reduced. The Department is inspecting vehicles and encouraging all vehicle owners to convert to autogas.

Americas

US EPA Focuses on Autogas

In recent months the U.S. Environmental Protection Agency (EPA) has focused its attention on alternative fuels and the impact they have on air quality and public health. EPA Administrator Christie Todd Whitman has featured alternative fuels in her presentations and discussions during Autumn, particularly related to childhood asthma and air pollution issues in metropolitan areas. As options are being sought, *Propane. Exceptional Energy.* has been underscored in EPA programs as a fuel of choice to preserve the environment and provide healthy clean air solutions.

In both the *Adopt-A-School Bus* program, launched in early October, and the *2003 Fuel Economy Guide Rollout* event hosted by Whitman and Department of Energy Secretary Spencer Abraham on October 29th, autogas was recognized for its clean burning, safe, and high performance capabilities. A 2003 autogas-powered Ford F-150 pickup bearing the *Propane. Exceptional Energy* logo was among the featured alternative vehicles displayed at the joint EPA-DOE event.

On September 30th, Administrator Whitman visited El Milagro Inc., a Chicago tortilla manufacturer and delivery service, to celebrate the company's clean air contributions through an autogas conversion programme. Twenty-four of El Milagro's 32 delivery vehicles are currently running on autogas which was recognized at the gathering for not only helping to reduce carbon dioxide and other harmful emissions, but for providing economic savings as well. "El Milagro has seen first hand that sound environmental practices are also sound business practices," said Whitman. "It's good for the environment -- reducing air pollution and making it easier to breathe for the millions of children who suffer from asthma."



According to Curtis Donaldson, founder of the CleanFUEL USA network, relationships are the key to autogas market development. The fragmented nature of autogas distribution, like that of other alternative fuels, demands pulling together diversified players. Infrastructure builders need to be creative in seeking support and building partnerships.

CleanFUEL USA is an emerging network of autogas fueling stations, with several pilot sites operating in Denver and many more anticipated in Colorado, California, Arizona, and Georgia. Approximately 30 new sites are planned and funded. The network operates by installing its own branded pumps and signage, often alongside a major oil company brand at existing service stations. It provides transaction-processing technology, enabling sites to process standard credit cards 24 hours per day. "The experience becomes seamless to the consumer, like purchasing gasoline," says Donaldson. For its part, CleanFUEL USA receives a transaction fee.

CleanFUEL USA is a legal partnership, set up by equity partners Georgia Gas Distributors, Delta Liquid Energy, and Mutual Propane, all of which are independent propane marketers. WLPGA members, AmeriGas, a multistate propane distributor, is also involved and distributor Ferrellgas have also signed up as a dealers at several sites, and the network seeks to make similar arrangements with distributor Suburban Propane.

Canada: Climate policy creates potential for autogas

The Government of Canada is leading by example in reducing greenhouse gas (GHG) emissions from its fleet of government vehicles. Beginning in December 2002, Prime Minister Jean Chrétien has instructed all ministers, secretaries of state and departments to use alternative fuel vehicles. The vehicles must be factory-equipped for autogas, natural gas, hybrid electric or E-85 (a blend of 85 percent ethanol and 15 percent gasoline), where fuelling infrastructure exists or is planned. All ministries will follow new guidelines for purchasing climate-friendly vehicles and using alternative fuels. Starting immediately, E-10 will be used in vehicles whenever available.

The 2003 Fuel Consumption Guide has also been released. It is intended to help Canadians make smart choices about the vehicles they drive by providing fuel consumption data on passenger cars, light-duty pickup trucks, vans and special purpose vehicles sold in Canada.



New Study on Fleets

A large study comparing trucks fuelled by natural gas with others fuelled by diesel has produced results that could help persuade fleets to use alternative fuels. The study examined the case of package trucks fuelled by CNG operated by United Parcel Service (UPS). It compared the operations, maintenance, performance, and emissions characteristics of Connecticut-based CNG and diesel vehicles from 1997 to 2000, as part of the broader U.S. Department of Energy/National Renewable Energy Laboratory (DOE/NREL) Truck Evaluation Project. In addition to showing the importance of profiling the importance of the environmental advantages of alternative fuels through producing lower emissions, the study provides some interesting conclusions on how best to convince fleet managers to operate alternative fuels fleets. For example, it concludes that preparation is essential. Before starting a project, the company's commitment to the environment must be solidified. Meetings with managers to gain their support for purchasing or retrofitting vehicles must also be organised and employees should be fully informed about the company's alternative fuels plan. The available governmental and market incentives should also be carefully identified. Other essential steps that are recommended include: researching the required range and routes of proposed fleets; locating publicly available fueling stations; examine the costs and benefits of installing onsite fuelling facilities; and, consult with similar companies engaged in alternative fuel projects. Of most crucial importance is to develop long term strategies and update stakeholders regularly about the company's activities and objectives. UPS in Canada has also had experience of running autogas fleets after it converted 735 delivery vehicles to autogas in the late 1970s.

The study results are detailed in *UPS CNG Truck Fleet: Final Results* which is available free of charge from *AltFuels Advisor* website, www.altfuels.com.

Ford to provide funds for U.S. Clean Cities

National Clean Cities Inc. (NCC) joined with Ford Motor Company to launch a new program that will provide incentives for Clean Cities coalitions. The program, which will be run by NCC and funded by Ford, will award incentives for grants and for sales of Ford alternative fuel vehicles (AFVs). NCC is a non-profit organization, unaffiliated with the federal government and was established to assist local Clean Cities organizations. The program will provide for graduated cash incentive awards based on the level of funding sought for vehicle purchases. All Ford bi-fuel and dedicated AFVs using either autogas or compressed natural gas will be eligible. The aim of the program is to help Clean Cities coalitions achieve a level of self-sustainability. The initiative will foster closer relationships between Clean Cities groups and Ford, and help promote Ford's AFV offerings. For more details contact: Carol Butler, info@nationalcleancities.org



Innovative ideas: Autogas auction

Vehicle market experts in the UK are suggesting that the marketplace needs a special 'autogas auction' so that the leasing industry can offer for sale some of its autogas vehicles. The objective would be to encourage the establishment of these vehicles on the used market - where concerns about used autogas vehicles are often cited as a roadblock in the development of a sustainable market for new autogas vehicles. Such an auction could provide greater confidence in the market for used autogas vehicles, as well as trigger the current interest by fleets in new autogas vehicles. The idea has already received a positive response from many quarters, including fleets and vehicle dealers. Comments are welcome via email at fleetnewsnet@emap.com.

Hungary: Online resources from Primagaz

The Primagaz website provides an excellent example of how better information and communication can help build the market for autogas vehicles. The website is full of information on the benefits and cost savings of operating autogas vehicles. It also features online maps pointing out autogas refuelling centers in Budapest and a guide to the 180 autogas stations throughout Hungary. Although Primagaz does not convert vehicles to autogas, the company provides contact information to those who do. Moreover, Primagaz encourages fleets to send requests for constructing new stations in their operating areas. Visit their multi-lingual site: <http://www.primagaz.hu>



GAIN: Network News

Looking Forward to 2003

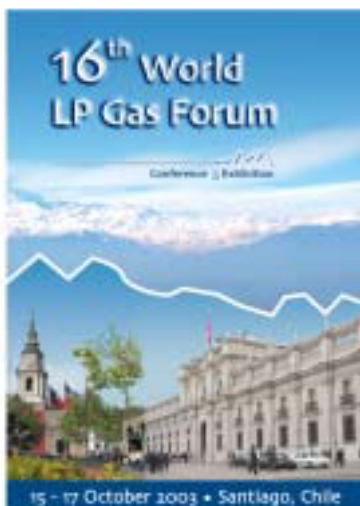
GAIN has had a productive year in 2002 and will build on the progress made this year to ensure that our services continue to add value to our members' activities in 2003. GAIN is now just over 2 years old. During these last two years, we have designed several products which can help our members convince stakeholders in their markets of the economic and environmental case for autogas. We now have a communications package that contains three main tools – an extensive guide for policy makers on how to develop a sustainable autogas market, a detailed technical guide on autogas which contains data on how autogas can help alleviate air quality problems and a brochure aimed at providing a comprehensive introduction for stakeholders on the practical and environmental advantages of choosing autogas. These are all products that can be used by the members both internally but also externally in their strategic communications with other stakeholders. They can also be used at international level. Our newsletter, *Autogas Updates*, is another product that has been developed and improved in the last two years. The increasing focus in *Autogas Updates* on governmental developments and news about fleets and OEMs reflects the increasing priority that GAIN has given in 2002 to increasing communications with both governments and OEMs. Without their support, autogas market development will not progress.

In 2002 GAIN has not only brought members together in dedicated task forces to improve the way in which our network operates but also to develop specific strategies for communicating more effectively with governments and also for building support for autogas from OEMs. As a result of our efforts support for autogas has been won from both the European Parliament and European Council of EU Ministers. The industry in Australia has also won assurances from government to support autogas. Recommendations for building support with OEMs have also been agreed as part of our OEM Challenge programme. A detailed communications toolkit has been designed that contains specific tools that to help members convince OEMs of the case for manufacturing autogas vehicles. New website techniques have also been designed and were presented at our last GAIN Council meeting in Bangkok to enable GAIN members exchange information more effectively among GAIN members.

2003 is a big year for the autogas industry and our actions will be focused on communicating at high level with the two key stakeholders who are central to the future of our industry—namely, governments and vehicle manufacturers. We look forward to the year ahead and urge you all to use the tools we have designed.

Robert Wright
GAIN Co-ordinator, World LP Gas Association
rwright@worldlpgas.com

16th World LP Gas Forum Santiago, Chile, 15-17 October 2003



The 16th World LP Gas Forum will take place in Santiago, Chile from 15 - 17 October 2003. Recent World LP Gas Forums were held in Buenos Aires 1997, Rome 1998, New Delhi 1999, San Diego, USA in 2000, Paris 2001 and the 15th in Bangkok, Thailand in October 2002. The World LP Gas Forum is the premier global conference & exhibition on LP Gas, attended every year by over 400 top executives of LP Gas companies from all around the world. Attendance at the Forum consists of Chairmen, CEOs or senior level executives along with senior government officials and representatives of external parties such as international agencies. The Forum is the major annual event where the industry communicates about global LP Gas business developments and issues relevant to both the industry and outside partners. Exhibition facilities are also provided for participants who wish to exhibit their latest products, systems and technology.

For more information on the 16th World LP Gas Forum or to receive future announcements for the conference and exhibition, contact : 16th World LP Gas Forum Organising Secretariat c/o COLLOQUIUM, 12, rue de la Croix Faubin, 75557 Paris, Cedex 11, France, Phone: 33 1 44 64 15 15 - Fax: 33 1 44 64 15 16, E-mail: worldlpgas@colloquium.fr, Web: www.worldlpgas.com.