

GOVERNMENT RECOGNISES LPG'S ROLE IN GREEN CAR FUTURE

The LPG industry has welcomed a decision by the Federal Government to provide a larger grant to private buyers of new

factory-fitted LPG passenger motor vehicles.

The doubling of the grant to \$2000 is part of A New Car Plan for a Greener Future announced by the

Prime Minister in Melbourne on November 10.

"The doubling of the grant recognises the potential for LPG Autogas fuel systems to play a more important role in the greener future of Australian-made cars," said LPG Australia's industry development manager Phil Westlake.

"Increasing the grant provides a larger incentive to our three local car makers to encourage further development of new LPG fuel-injection technologies that lower running costs and cut carbon dioxide (CO₂) emissions.

"Wider adoption of LPG Autogas will allow Australians to further reduce their

vehicle transport emissions."

LPG Autogas powered vehicles emit significantly fewer greenhouse gases and other pollutants than petrol-powered equivalents, including around 10 per cent less CO₂.

For factory-built vehicles, where it is possible to fully integrate the LPG system and combine it with other technologies, further CO₂ reductions are achievable.

Phil Westlake says LPG Autogas is Australia's most widely distributed lower-carbon alternative fuel.

"There are LPG Autogas pumps at around half of Australia's 6500 service stations including good rural coverage,

"In addition Australia has huge natural reserves of LPG and is a net exporter of the gas. Greater use has the potential to reduce our dependence on imported oil."



WINTER FUEL PRICES ADD HEAT TO DEMAND

A winter of record fuel prices has further boosted the rising fortunes of LPG Autogas, with a big increase in vehicles being converted to run on the economical fuel.

Figures released by industry body LPG Australia show that for the year to the end of October, the number of conversions in Australia was 96,798 – up 18,167 or 23.8 per cent over the same period in 2007.

Even more dramatically, in the six months between May and October the conversion rate rose by 44 per cent over the same period last year.

"The conversion rate has been trending up during the year in direct parallel with the rise in petrol and diesel prices," said LPG Australia's industry development manager, Phil Westlake.

Mr Westlake said the increase in the number of consumers wanting



Rising fuel prices have increased LPG Autogas conversions

to convert to LPG has coincided with the greater availability of new LPG systems for a wider variety of cars.

"Traditionally, most LPG conversions were for large family cars and four-wheel drives, but I think it's a sign of the times that we are now seeing growing

demand for the conversion of four-cylinder cars," said Mr Westlake. LPG conversion rates have grown dramatically since the Federal Government introduced a grants scheme in August 2006.

In 2005 34,201 private vehicles were converted to run on Autogas, rising to 92,489 in 2007.

"On current trends we would expect the conversion total to exceed 110,000 vehicles in 2008," said Mr Westlake.

The boom is being matched by the trend in new LPG vehicle sales to private buyers, which are up 38.9 per cent compared to the same period last year.

REPCO CHOOSES LPG OVER DIESEL

Automotive parts supplier

Repco has renewed its commitment to running the majority of its vehicle fleet on LPG Autogas after rejecting diesel as a financially viable alternative.

Repco has rolled out a fleet of 160 Mitsubishi Triton, single and dual cab utilities, all fitted with a state-of-the-art Impco BRC vapour injection system.

They add to more than 600 Autogas-powered utilities and 120 large LPG sedans already in operation.

The balance of the 1100-vehicle fleet is made up of smaller 4-cylinder sedans and hatches.

"When it came time to replace some of our utes we looked closely at various diesel-powered models but the economics were quite shattering," said Repco's national fleet manager Mike Moffat.

Mr Moffat based his cost analysis on an average 80-cents-per-litre differential between the price of Autogas and that of diesel. The recent price differential has been well over one dollar per litre.



Repco's Mike Moffat with one of his LPG-powered Triton utes

"Even allowing for the cost of LPG conversion, over an average 45,000 kilometres per year a diesel-powered equivalent vehicle would cost an extra \$2600," he said.

"I think a lot of fleet managers are starting to realise that up against LPG, diesel is not even in the race."

The Impco LPG conversion kit for the 3.5-litre V6-engined Tritons is the same factory-endorsed system applied to the Mitsubishi 380 and does not void the factory warranty. Mike Moffat is enthusiastic about the latest generation of LPG vapour injection technology.

"I wasn't a fan of the old-style fumigation-style gas systems, but

this system is a different world."

Mr Moffat says Repco uses its Autogas-powered utilities for the delivery of major engine components and other drivetrain parts throughout Australia.

"We simply couldn't afford to run our delivery vehicles if we weren't using LPG - it would change the dynamics of our whole business."

CHRYSLER JEEP STEPS ON THE GAS



Chrysler Australia has begun offering Parnell-supplied LPG Autogas engine conversions on its 300C and Jeep Grand Cherokee models.

The LPG kits - for six and eight-cylinder petrol models - are available through all Chrysler dealers.

Both engines are fitted with a Vapour Sequential Injection (VSI) system developed by Parnell LP Gas Systems in Victoria, in co-operation with Chrysler Australia, and include components from Netherlands kit manufacturer Prins Autogassystem B.V.

"When looking for an LPG supplier, we couldn't look past Parnell," says Chrysler Australia's general manager of service and parts, Robert Moorecroft.

VSI is the latest generation of LPG induction technology.

Parnell LP Gas Systems general

manager Mark Somers says the average person driving a 300C fitted with the LPG conversion would have no idea the car was running on Autogas.

"Like all our kits, it drives really well and you wouldn't know which fuel you're operating on from a driveability viewpoint," he said.

"The kit places no restriction on air flow in petrol-only mode so there is no loss of power when running petrol - which means you can have the best of both worlds."

Mr Parnell said the system is particularly distinguished by its unique injectors, sourced from Japanese manufacturer, Keihin.

"For over 10 years we've dealt with the good, bad and ugly when it comes to injectors, and these are substantially better than anything we've come across - exceptional in terms of performance and longevity."

LIQUID-INJECTION LPG BOOSTS MOTORIST SAVINGS

A cutting-edge LPG Autogas system which promises to enhance LPG Autogas' fuel economy when compared with petrol – and combine this with better-than-petrol power – is now available in Australia for the first time.

Australian LPG Warehouse says its new-generation liquid-injection LPG system, called JTG (Just Think Green), significantly closes the fuel consumption gap between Autogas and petrol engines.

"It depends on the car, but our trials of the JTG system have consistently achieved Autogas consumption of only 10 to 15 per cent more than equivalent petrol systems," said Australian LPG Warehouse co-director, Hilbert Klaster.

Mr Klaster said another key advantage of the European-developed JTG system was that it yielded additional power over petrol.

"Being cooler than petrol, liquid gas provides more volumetric efficiency in the cylinder and a denser charge – and this fuller combustion translates into more power.

"For most vehicles it produces two to three more kilowatts of power, but much more is possible."

Mr Klaster said Australian LPG Warehouse's basic testing of a turbocharged Ford Falcon XR6 yielded an 18kW power increase "straight off the cuff, without much tuning, so the performance potential is huge".

Australian LPG Warehouse already has kits for popular models, including the BA Ford Falcon and VE and VZ Holden Commodore.

It is also targeting smaller capacity engine vehicles and has kits approved for the four-cylinder Toyota Camry and Corolla.



Hilbert Klaster shows Australia's first liquid injection LPG system

CROWN PICKS UP LPG SAVINGS

Material handling company Crown Equipment has slashed \$120,000 from its annual fleet fuel bill and reduced its carbon dioxide emissions by 60,000 kilograms through using LPG Autogas-powered passenger vehicles.

The national forklift specialist introduced an Autogas passenger vehicle replacement policy 18 months ago.

Its 35 LPG-powered E-Gas Ford

Falcons travelled over one million kilometres combined in the 12 months from March 2007 to March 2008.

Crown Equipment fleet manager Colleen Upsall calculated the potential combined petrol bill for the vehicles to be \$239,000. The Autogas equivalent was \$119,000 – a 50 per cent cost reduction.

"The two main reasons we are moving our fleet to Autogas are

that its environmental advantages align with our corporate responsibility policies, and for its proven economic benefits. Together, they form a compelling argument," she said.

"Over 90 per cent of the counter-balance forklifts in our forklift rental fleet are LPG-powered, which further reduces the carbon footprint of our business.

"Fuel is a major component of a vehicle's whole-of-life cost, so any way you can immediately reduce fuel costs benefits your long-term bottom line.

"The cost of vehicle emissions is something fleet managers will need to consider in the future. We have begun working with state governments to formulate responsible emission credit policies, and Autogas' lower emission properties will be beneficial in that regard."

Crown Equipment has 100 petrol passenger vehicles in its fleet and is set to reap further efficiencies when these are replaced with

dedicated E-Gas Ford Falcons.

"We chose the dedicated Ford Falcon E-Gas model because it controls driver behaviour," Ms Upsall said. "Drivers who have been used to petrol will naturally favour it over Autogas. By removing the petrol choice, you maximise LPG's full potential."

Ms Upsall said that Crown managed its employees' transition to Autogas vehicles with a strategic educational program.

"Employee expectation is one of the biggest considerations to manage in the transition to Autogas," she said.

Crown tackled the issue head-on by instituting a national road show designed to dispel Autogas vehicle misconceptions and explain their distinct advantages.

"It didn't take long for the drivers to adapt and now they're quite happy with it. They understand it's good for the business and therefore, from an overall perspective, good for them."



Crown's Colleen Upsall with a new LPG-powered FG Falcon

HEARSE SETS NEW STANDARDS

An Australian project to design and manufacture a world-class hearse for the funeral industry has chosen a dedicated LPG-powered Ford Falcon utility as its base vehicle.

The Falcon ute has been extensively re-engineered by a team of ex- Holden and Ford designers to create the Allonge hearse.

The Allonge is the brainchild of Marc Allison from one of Australia's leading funeral directors, TJ Andrews.

"To our knowledge this is the first time a Falcon ute has been properly

converted and we chose it as the base vehicle because it was available with a dedicated LPG engine and would cost less to modify than a wagon or sedan," says Marc Allison.

Mr Allison says he was motivated by the desire to create a better looking, better quality vehicle than the typical hearse – at a lower production cost to give head room for a significant R&D investment.

"We've designed a vehicle that is more attractive outside and in, will be more durable, will have better resale value and will be better value for money.

"In addition, by choosing dedicated LPG power, fuel costs will be lower – making the vehicle an even more attractive business proposition to funeral directors.

"For example, petrol for TJ Andrews' fleet of vehicles costs us more than \$240,000 a year

and rising, so the lower fuel cost of running on LPG will be welcome."

Mr Allison says the Allonge is distinguished by the rigorous design and engineering process undertaken to create it.

Tim Rugendyke, former Holden designer and now Design Director at TDI (Transport Design International), styled the all-new rear sections of the vehicle to create an integrated design.

The extensive engineering required to turn the Falcon ute chassis into a hearse was led by Todd Lawler and Simon Orton from Leslie Consulting with input from former senior Ford Australia engineer Graeme Sheahan.

"The Allonge has been developed by engineers using Computer Aided Design (CAD) tools and when you inspect it in detail you can see the difference in quality," Mr Allison said.

The Allonge is undergoing final testing and government approval and is expected to enter service within six months.



SMALL CAR LPG CONVERSIONS

Surging sales of small cars and compact Sports Utility Vehicles (SUVs) have combined with rising crude oil prices to create a new market for converting four-cylinder engines to Autogas, says industry association LPG Australia.

Official industry figures show sales in the Small car segment were up 5.9 per cent in 2007 to 232,388 – making the segment the largest volume part of the new car market. The compact SUV market was up 19.4 per cent.

The LPG industry has responded by developing Autogas conversion kits for popular four-cylinder cars such as the Nissan X-TRAIL, Honda CRV, Toyota Corolla, Subaru Liberty and Holden Astra. "LPG Autogas traditionally sells for around half the price of petrol so there are substantial savings to be made, regardless of engine size," said LPG Australia industry development manager, Phil Westlake.

Motorist Ross Chilianis said he has enjoyed a multitude of benefits since having his 2007 Nissan X-TRAIL converted to Autogas by Australian LPG Warehouse, including fuel cost savings and environmental benefits.

He said he was surprised at how advanced the vapour sequential injection system was compared with previous LPG systems he had experienced and was especially pleased with the system's driveability.

"I can't pick the difference in performance between petrol or Autogas fuel. If anything, I think it goes a bit better on gas," Mr Chilianis said.

"I also like how the round LPG tank sits under the rear cargo floor in place of the spare wheel. You wouldn't even know it is there unless I showed it to you."



Motorist Ross Chilianis with his LPG-powered X-Trail