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LPG VEHICLE SAVINGS HAVE NEVER BEEN GREATER

Motorists who have converted their vehicles to run on LPG Autogas are saving up to 50 per cent off their petrol fuel bills, says industry association LPG Australia industry development manager Phil Westlake (pictured).

Motorists who have converted their vehicles to run on LPG Autogas are saving up to 50 per cent off their petrol fuel bills, says industry association LPG Australia.

LPG Australia industry development manager Phil Westlake said that at a time when petrol prices are hitting $1.60 a litre and more, Autogas is retailing for at least 90 cents a litre less.

"While LPG is not immune from price fluctuations caused by world oil markets, Autogas typically sells for less than half the price per litre of ULP petrol.

Over the course of a calendar year it clearly offers an immense savings advantage," he said.

"If you are spending $80 per week on petrol now, you'll be spending $40 or less on Autogas."

Mr Westlake said that Autogas conversions typically cost between $3000 and $4000. These conversion costs are quickly recouped through Autogas savings and the Federal Government's rebate provided by the LPG Vehicle Scheme.

The Scheme provides a $2000 rebate for private motorists who convert a petrol-powered vehicle to run on LPG Autogas and $1000 for a new LPG vehicle.

"Even without a $2000 grant, a motorist who converts a six-cylinder engine to run on Autogas will recover their conversion investment in under two years – assuming they travel 25,000 kilometres per year and their conversion cost is $3000."

In April the national average ULP price was 142.9 cents per litre compared to 66.3 cents for Autogas.

"Factoring in a $2000 grant towards the conversion, you would recover the conversion cost in only seven months."

Since the scheme was introduced in August 2006, more than 136,000 private motorists have converted their vehicles or bought new LPG-powered vehicles with the help of the government grants.

In the recent Federal Budget, the Government reaffirmed its support for the scheme, allocating a further $19.1 million in funding.

Mr Westlake said Autogas also had strong environmental credentials. It typically produced up to 10 per cent less emissions of carbon dioxide (CO_2) than petrol-fueled variants of the same model.

"Autogas burns more cleanly than petrol and diesel, resulting in reduced CO_2 emissions – but also lower emissions of other poisonous gases such as hydrocarbons, carbon monoxide and oxides of nitrogen," he said.

It is generally accepted in the LPG industry that the current-generation vapour sequential injection (VSI) Autogas systems are indistinguishable from petrol systems in that they offer virtually identical power and driveability.

"You really cannot tell which fuel is powering the vehicle," Mr Westlake said.

With Autogas being sold at over 3200 national outlets, availability is no longer a barrier to conversion, he said.

"The Autogas retail network is very well established and supported by major fuel companies... you can drive across Australia without ever having to re-fill with petrol."

LEADING ENGINEER CALLS FOR AUSSIES TO USE LPG

One of Australia's most renowned automotive engineers says the Federal Government should continue to encourage consumers to convert their vehicles to run on LPG Autogas.

Dr Laurie Sparke OAM says looming fuel supply issues and the potential for significant savings in greenhouse gas emissions make LPG the best alternative fuel option.

Dr Sparke, who was formerly the director of innovation at GM Holden, says encouraging more motorists to use LPG would reduce Australia's growing oil imports and also provide considerable environmental benefits.

"The Federal Government should firstly encourage consumers to convert to LPG use and secondly encourage the development of new technology to achieve the 13 per cent reduction in greenhouse gas emissions which is available from the use of this fuel," Dr Sparke said.

The LPG Vehicle Scheme provides a $1000 grant to purchase a factory-built LPG vehicle or $2000 to convert an existing diesel or petrol vehicle to run on LPG.

Since the scheme was introduced in August 2006 over 136,000 Australians have changed to LPG motoring.

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TOYOTA COROLLA GETS LPG SAVINGS

Sprintgas Australia general manager Andrew Whale says interest in its Corolla Autogas conversion kit has been strong.

Australia's best-selling small car Toyota Corolla is now even more economical to run, thanks to a new LPG conversion kit.

LPG Autogas typically sells for around half the price of unleaded petrol, potentially yielding significant fuel cost savings and also environmental advantages for petrol-powered Corolla owners.

Corolla Autogas kit developer Sprintgas Australia said real-world testing of its new vapour sequential injection kit revealed a converted Corolla sedan with automatic transmission consumes 10.9 litres of Autogas per 100 kilometres.

Toyota officially quotes petrol fuel economy of 7.4 litres/100km. Sprintgas, however, said its testing recorded consistent Corolla petrol consumption of 10 litres/100km.

LPG Australia industry development manager Phil Westlake said that converting a four-cylinder engine car such as the Toyota Corolla provided worthwhile savings.

"There's a misconception that only larger cars are worthwhile converting to Autogas," said Mr Westlake. "More important than a car's engine size is how often it requires refuelling.

"At 70 cents per litre for LPG, the Corolla costs around $7.63 per 100 kilometres to fuel. By comparison, at $1.60 per litre the Corolla would cost around $16.00 per 100 kilometres to run on unleaded petrol.

Sprintgas Australia said it developed its Toyota Corolla LPG kit partially in response to a shift in buyer preferences away from large cars.

Small cars sales were up 5.9 per cent in 2007 and, with 232,388 sales last year, accounted for the largest volume segment of the new car sales market, according to figures released by the Federal Chamber of Automotive Industries.

Sprintgas Australia general manager Andrew Whale said that private motorist and business interest in the kit has been strong, and that he also plans to export it to Asia.

"We see huge domestic potential for Corolla conversions, especially with fleet operators and government buyers now placing more importance on reduced environmental impact, and of course running costs," he said.

Mr Whale said that the Federal Government's LPG Vehicle Scheme, which provides a $2000 grant to convert a petrol car to LPG Autogas, has generally encouraged domestic Autogas kit development and created new export opportunities for his business.

Sprintgas is in negotiations to export the Corolla kit to South East Asian countries, including Malaysia, Thailand, Hong Kong and Singapore, where Corolla is commonly the taxi of choice.

LEADING ENGINEER CALLS FOR AUSSIES TO USE LPG

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Dr Sparke said tightening global oil supplies, increasing demand and falling domestic oil production means Australia faces a serious supply crunch within the next five years.

He said LPG and Compressed Natural Gas (CNG) derived from natural gas production were the best alternatives.

"Australia has large reserves of LPG and natural gas which are, as yet, under-utilised. We should be taking leadership in the development of gas fuel and vehicle technologies to exploit that supply," said Dr Sparke.

"Other fuel alternatives, such as the large-scale production of bio-fuels, will have unintended negative environmental effects.

"Ethanol will be limited to use as a low-percentage petrol extender in Australia because of the huge areas of land cultivation required."

Dr Sparke said LPG conversion was also the best alternative for short-haul trucks, many of which used old engine technology with poor emissions performance.

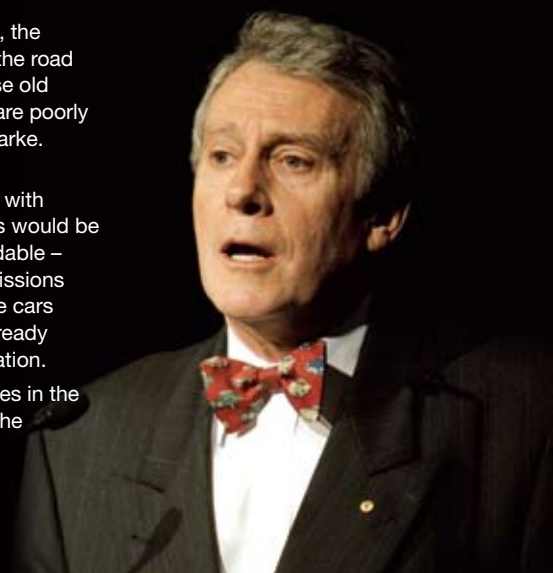
He said old cars were also excellent candidates for LPG conversion.

"In Victoria, for example, the average age of cars on the road is 11 years and many use old engine technology and are poorly maintained," said Dr Sparke.

"Simply mandating the replacement of old cars with new, more efficient ones would be inequitable and unaffordable – and the greenhouse emissions caused by making those cars would exacerbate an already critical greenhouse situation.

"Converting older vehicles in the national fleet to LPG is the better solution."

Dr Laurie Sparke OAM has called for the government to continue encouraging motorists to convert their vehicles to run on LPG.



LPG MAKES LONG COMMUTE AFFORDABLE

A Hunter Valley woman is full of praise for LPG Autogas after converting her four-cylinder Toyota Camry to reduce the cost of a long daily commute to work in NSW.

Dorith Schraauwers travels 1000 kilometres a week between her home in the wine-growing area of Broke and her office on the Newcastle harbour foreshore.

Since converting her 2005 model Camry from petrol to LPG last September, she has reduced her fuel bill by $150 per month.

"I have always preferred to drive economical cars to keep fuel bills down," Ms Schraauwers said.

"When I started doing the 100-kilometre daily commute I looked for ways to lower my fuel costs, and I found LPG conversion was the most attractive option."

Ms Schraauwers was born in The Netherlands where there is a long history of using Autogas-powered motor vehicles.

"I remember from my childhood in Holland that quite a few cars were on LPG so it seemed quite natural to consider that option."

Ms Schraauwers says the decision was made easier by the Federal Government's LPG Vehicle Scheme. "After the rebate, the conversion cost me only $1800, and I expect to make that back in savings in running costs within a year," she said.

Ms Schraauwers' Camry was fitted with a new generation Sequential Gas Injection (SGI) system by leading Italian manufacturer Tartarini.

Designed to be compatible with the vehicle's existing engine Electronic Control Unit, the Tartarini system auto-calibrates to ensure smooth running, optimise fuel consumption and reduce exhaust emissions.

"Another reason for the decision to move to Autogas was its reduced impact on the environment," Ms Schraauwers said.

Based on comparative fuel consumption figures, the Camry's CO_2 emissions have been reduced by 2.32kg for every 100 kilometres travelled since conversion to LPG – an 11 per cent reduction.

This represents a 1.2 tonne per-annum saving of CO_2 emissions.

"Driving on Autogas is a win-win situation for the individual's back pocket and cleaner emissions for our environment," Ms Schraauwers said.

GLASS FLEET SAVES WITH GAS

As petrol prices escalate, so too does O'Brien's uptake of affordable and environmentally friendly LPG Autogas vehicles, says national purchasing manager Ian Forrester.

Major automotive and building glass company O'Brien is using affordable and environmentally friendly LPG Autogas to power its vehicle fleet and save up to 50 per cent of its petrol vehicle fuel costs.

Its LPG Autogas-powered vehicles emit around 15 per cent less carbon dioxide than equivalent petrol vehicles.

O'Brien started using LPG Autogas in the late 1990s, primarily to take advantage of the fuel cost savings it affords.

O'Brien national purchasing manager Ian Forrester said that as petrol prices had escalated, so too had the fleet's uptake of Autogas vehicles.

"Our operating costs blew out with every petrol price hike. LPG kept looking better and better."

Today the O'Brien fleet runs over 200 Toyota HiAce vans on Autogas – and Mr Forrester said opting for Autogas-powered HiAces couldn't be easier.

"Our leasing company arranges for Toyota to fit them out and deliver them to any of our locations in Australia. It's really no different to ordering a petrol-powered HiAce – except of course for the running costs."

LPG Australia industry development manager Phil Westlake said that businesses with vehicles travelling a high number of kilometres annually found Autogas fuel especially attractive.

"Petrol is a massive operating cost for road-based businesses – and one that can be drastically reduced by using Autogas," he said.

Mr Westlake said Autogas vehicles also retain higher resale values and are more highly sought-after than petrol equivalents at the end of their service lives.

O'Brien's use of LPG HiAces has been so successful it now plans to introduce up to 30 Autogas-powered Toyota HiLux utilities to its fleet.

"In the past we have always used diesel-powered trucks to carry large panes of glass for home and business users," Mr Forrester said.

"Now that we can get the one-tonne HiLux with an LPG option, it's more economical for us to go that route."

The fleet also uses 50 Ford Falcon E-Gas-dedicated LPG vehicles for its managers and sales representatives.

Environmental considerations have also driven the O'Brien fleet's Autogas uptake.

"Our company is now looking at ways to reduce our carbon footprint going forward and LPG is a big part of that," Mr Forrester said.

AUSTRALIAN-DEVELOPED LPG HEAVY TRUCK IS A WORLD FIRST

Fleet Effect's 2656 FPC Envirotech prime mover is powered entirely by LPG.

The world's first heavy truck powered entirely by LPG was unveiled at the inaugural International Trailer, Truck and Equipment Show in Melbourne in May.

The 2656 FPC Envirotech® uses patented technology to re-engineer a Mercedes-Benz Actros 12-litre V6 diesel prime mover to run on 100 per cent LPG.

The re-engineered prime mover is specification-compliant to tow a 26-metre B-double and offers transport operators more power, quieter running and up to a 10 per cent reduction in fleet operating costs.

The LPG-powered truck is the result of an alliance between Fleet Effect Pty Ltd and its project partners Advanced Vehicle Technologies Pty Ltd (AVT), Autolync Pty Ltd, and MapData Sciences Pty Ltd.

The key to the breakthrough is the holistic approach taken by partner AVT to the re-engineering of the standard diesel engine.

A patented compression reduction fuel swirl plate reduces engine compression from 18:1 to less than 10:1 and allows the Mercedes-Benz engine to operate on spark ignition rather than compression ignition.

The plate's fuel swirl characteristics improve engine efficiency, resulting in better fuel consumption, more low-end torque and improved overall power.

The cylinder head of the 2656 FPC Envirotech is also modified to accept spark plugs and an LPG induction system, with improved cooling performance.

A new LPG electronic engine management system controls engine timing and fuel induction for maximum efficiency.

The project is supported by the Co-operative Research Centre for Advanced Automotive Technologies (Auto CRC), which included the participation of its members, the University of South Australia and the Victorian Partnership for Advanced Computing (VPAC).

"This LPG-diesel re-engineering technology is an exciting event for the large operating savings it offers fleet operators and its contribution to reduced greenhouse gas emissions, as well as the virtual elimination of particulates," said Auto CRC's chief executive Matthew Cuthbertson.

The project partners have spent the last 18 months fine-tuning a number of diagnostic systems and controls in order to fully integrate the LPG-powered truck into an internet-based communications and GPS network that operates in real time.

Fleet Effect chief executive John Tsoucalas says this system is almost as big a breakthrough as the engine technology.

"The technology breakthrough comes in a complete package, which offers the heavy fleet operator everything from installation of the new LPG-diesel technology, to an internet GPS-based fleet maintenance diagnostic system.

"A complete compliance package including greenhouse gas reporting and fatigue management is also included," he said.

"Customers will also receive a whole-fleet fixed-price customer lease, inclusive of LPG fuel and maintenance, which will be known as a 'Fleet Performance Contract™', or FPC.

"This will turn the traditional approach for managing truck fleets on its head and offer transport operators an up to 10 per cent reduction in fleet operating costs."

LPG Australia's industry development manager Phil Westlake says there is a compelling case for the greater use of LPG in heavy vehicles.

"The environmental and health benefits of injecting LPG into diesel engines are already well-known, but this technology takes that to the next level and has the potential to place Australia at the very forefront of LPG use in heavy vehicles."

SUV OWNER TURNS TO LPG

Motorist Rasik Kulkarni says rising petrol prices spurred him to convert his four-cylinder Nissan X-Trail SUV to run on more affordable LPG Autogas.

Mr Kulkarni said he first learned of Autogas' affordability and availability as a former taxi driver.

"LPG is the taxi industry's fuel of choice, and for very good reasons. It is much cheaper to buy, it doesn't affect the car's performance and you can get it almost anywhere," he said.

Autogas infrastructure has proliferated in recent years, with over 3200 outlets available nationally, according to industry association LPG Australia.

Now a network engineer, Mr Kulkarni drove petrol-powered cars before high and fluctuating prices forced him to consider a private Autogas conversion.

"The price of petrol was becoming exorbitant and I could only see it getting higher, so I decided to do something about it. When I saw that the government was offering LPG rebates, I jumped at the opportunity."

Local research led Mr Kulkarni to Autogas conversion specialist Broady Automotive in Hornsby, NSW.

Proprietor Wayne Broady said he fitted a round gas tank in the wheel-well of Mr Kulkarni's X-Trail in order to avoid on intruding on interior space.

Mr Broady said the latest-generation emissions-approved Tartarini Sequential Gas Injection system fitted to the vehicle delivers driving performance identical to the petrol-powered vehicle, with none of the reliability issues found with some previous-generation LPG systems.

"You can't tell the difference when you're driving, but there's a big difference at the pump." Mr Kulkarni said.

"The other great thing about LPG is that it burns cleaner than petrol and produces lower emissions. It's a nice side-benefit to the savings. I figure if there's a cheaper fuel that's also a better environmental option, why not use it?"

Mr Kulkarni estimates that fuel cost savings afforded by the conversion will cover its cost within 12 months. "Even earlier than a year, if petrol prices keep rising," he said.