



Creating new manufacturing jobs by reinventing the Australian LPG vehicle industry

**Summary of a proposal prepared by Gas Energy Australia and
the Victorian Automobile Chamber of Commerce**

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Overview

The current rationalisation of the Australian vehicle manufacturing sector represents an opportunity to implement policies designed to create long term sustainable jobs in keeping with the Government's *Policy to Boost the Competitiveness of Australian Manufacturing*. To do this, such policies must focus on areas where Australia has comparative advantage. One such area is Australia's LPG vehicle industry, which is one of the most developed and advanced in the world in terms of supply, infrastructure, technology, vehicles and skilled labour.

Building on these advantages, Gas Energy Australia (GEA) and the Victorian Automobile Chamber of Commerce (VACC), in consultation with the LPG vehicle conversion industry and other key automotive industry stakeholders, have developed a proposal that would change the way new LPG vehicles are manufactured in Australia.

The proposal would create new manufacturing jobs for automotive workers affected by current industry rationalisation to create world-class LPG manufacturing facilities using the same production methods used in Europe and the US to deliver economies of scale, Motor Vehicle Producer (MVP) quality and a much wider range of new LPG vehicles than is presently available. This would in turn deliver broader benefits to the Australian economy in terms of: (a) improved energy security, (b) reduced greenhouse gas (GHG) emissions and (c) lower transport costs. It would also more than offset the risk to the substantial national investment that has been made in establishing a national LPG vehicle refuelling, maintenance and servicing network posed by the impending loss of traditional Ford and Holden manufactured LPG powered passenger cars and light commercial vehicles.

Key elements of the proposal

The proposal comprises three interconnected elements that constitute the reinvention of the existing LPG vehicle manufacturing and supply chain in Australia. These elements can be summarised as follows:

- 1. Centre of Excellence:** GEA and VACC propose to create a national LPG vehicle *Centre of Excellence* that would be developed along similar lines to the Propane Education & Research Council (PERC) in the United States (refer: <http://www.propanecouncil.org/about/>). This Centre would utilise elements of the displaced high-end skilled labour to provide the product and research discipline required to build the next generation of LPG vehicles. Key activities would include; gas vehicle and component research (new product development), development and application of conformity of production protocols to ensure product quality, conduct of emissions validation to ADR requirements, the provision of conversion facility accreditation and product certification, and industry training. It is envisaged that this Centre would be located in Melbourne and could potentially provide R&D assistance to overseas MVPs importing into Australia.
- 2. National LPG vehicle production facilities (new vehicles):** The loss of Ford and Holden manufactured LPG vehicles would be addressed by the development of factory scale LPG production facilities that would convert both locally manufactured and imported vehicles under production line conditions, thereby enabling realisation of lower installation costs and delivery of consistent manufacturer standard LPG vehicle product. These production facilities will be modelled on the innovative facilities now operating in Europe and the US - the production economics and capital requirements have also been drawn from the recent industry experience with the operation of these facilities. Figure 1 below shows such a facility operated by BRC Gas Equipment in Italy which currently produces 1,800 new LPG vehicles per month. It is envisaged that three centres (with an initial capacity for 15,000 vehicles per year) would be established in Adelaide, Geelong and Melbourne.

Figure 1

European LPG vehicle production line



Source: BRC Gas Equipment

3. **Revitalisation and retasking of the current conversion industry:** The expected increase in new LPG vehicles will require the development of an integrated after sales maintenance and service network, in much the same way as motor vehicle dealers maintain conventional powered vehicles once they are sold. It is envisaged that this need will be addressed by reskilling of the existing conversion industry to undertake this task (including the addition of displaced labour from the rationalisation of the vehicle manufacturing industry). Current convertors would also continue to accommodate market demand for LPG conversion of second hand petrol and diesel powered vehicles but new installation protocols and accreditation processes introduced by the proposed *Centre of Excellence* would be applied to ensure delivery of consistently high quality and conforming products to Australian consumers.

Anticipated community benefits

The adoption of this proposal by Australian industry is expected to delivery four public-good benefits, namely:

1. **New job creation.** It is estimated that the market realisation of this proposal could generate new employment for around 500 people, primarily in Melbourne, Geelong and Adelaide. While this is modest in the face of projected job losses, these jobs would utilise valuable research and design personnel as well as production personnel, and provide a solid skills base for further expansion.
2. **Retention of high-end automotive technology skills.** The loss of high-end technology skills from a national industry represents a compounding loss to any economy, with consequent impacts on international competitiveness. This is particularly acute for an economy such as Australia where labour costs are high relative to most other economies. The establishment of the proposed *Centre of Excellence* (and national conversion centres) will ensure that some of these skills are retained and allow Australia to develop strong skills in the development and manufacture of LPG automotive technologies – with potential to leverage these skills into export markets in South East Asia.

3. **Reduction of national demand for imported oil (i.e. energy security benefits).** There are currently over 490,000 light vehicles in the Australian LPG fleet. It is estimated that a further 270,000 vehicles could be added to the national vehicle fleet over the next seven years. Given that there is an abundant supply of indigenous LPG available in Australia, the achievement of this objective would reduce Australia's demand for imported finished fuel product by 218 Million litres per year (equivalent to 7.1M barrels per year).
4. **Realisation of net GHG emission benefits.** Achievement of GHG benefits is reliant upon the high-quality installation of advanced LPG product. The current availability of this product coupled with the introduction of production conformity and accreditation protocols will deliver GHG outcomes that fully realise the potential GHG benefit of substituting LPG for conventional oil based fuels. The anticipated introduction of a further 270,000 vehicles is projected to deliver an estimated GHG reduction of 153,000 tonnes per year (relative to the business as usual scenario).

Quantum of investment required

This proposal will harness the combined resources of the LPG vehicle industry, Gas Energy Australia and the Victorian Automobile Chamber of Commerce who will work in tandem with the local manufacturers and vehicle importers to develop a cost effective vehicle supply solution.

Nonetheless, it is envisaged that the Government could assist with this process by contributing \$50M over five years. This cost is a preliminary estimate and comprises:

1. A 100% contribution to the costs associated with project scoping, development and implementation management (\$1M);
2. A 100% contribution to the costs of establishment and first five years of operation of the *Centre of Excellence* (\$42M);
3. A 50% contribution of the start-up capital for the three national conversion centres (\$3M); and
4. Provision of funding assistance to GEA and VACC for the reskilling of existing automotive manufacturing/LPG conversion labour over three years (\$4M).

This funding could be drawn from the likely to be underspent funds already allocated to the Automotive Transition Scheme (ATS) if the Scheme's eligibility criteria were modified to recognise the manufacturing nature of LPG conversions. The investment would obviously be contingent on matching funds being provided by industry in respect of the conversion centres.

Other relevant considerations

The proposed rationalisation of the LPG vehicle manufacturing and supply chain will result in the delivery of a cost effective production model for the supply of new LPG vehicle models to the Australian economy. Preliminary modelling suggests that the net reduction in the cost of LPG systems is likely to be in the order of 30% to 40%.

Consideration will also need to be given to the stimulation of early demand using measures such as the biasing of government vehicle procurement to LPG vehicles for a defined start-up period, accelerated depreciation of LPG vehicles possibly by allowing businesses to fully write down the incremental capital cost of LPG vehicles within the first year of ownership or freezing LPG excise at current levels.

Summary

The above opportunity has been developed from the findings of a 12 month analysis of the LPG vehicle industry in Australia and is further discussed in a recent submission provided to the Productivity Commission's Review of the Australian Vehicle manufacturing industry (*Gas Energy Australia and Victorian Automobile Chamber of Commerce – Submission to the Productivity Commission Inquiry into Australia's Automotive Manufacturing industry – 2 December 2013*).

GEA and the VACC are preparing to develop the detail of this proposal in full, subject to receiving a favourable response from the Australian Government in relation to this submission. Both organisations are well placed to work with government and other industry stakeholders to make this concept a reality and assist the LPG vehicles industry to transition to an economically sustainable manufacturing model in the near future.

GEA and the VACC would be pleased to address any queries or points of clarification that the Government may seek.

Regards



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Distribution:

- The Hon Tony Abbott MP, Prime Minister
- The Hon Warren Truss MP, Deputy Prime Minister and Minister for Infrastructure and Regional Development
- The Hon Joe Hockey MP, Treasurer
- The Hon Ian Macfarlane MP, Minister for Industry
- The Hon Greg Hunt MP, Minister for the Environment