



GAS ENERGY AUSTRALIA

SUBMISSION

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SUBMISSION TO

**THE SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT
REFERENCES COMMITTEE**

INQUIRY INTO

TRANSPORT ENERGY RESILIENCE AND SUSTAINABILITY



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9 November 2014

Mr Tim Watling

Committee Secretary
Senate Rural and Regional Affairs and Transport References Committee
PO Box 6100
Parliament House
CANBERRA ACT 2600

Via email: rrat.sen@aph.gov.au

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**GAS ENERGY AUSTRALIA SUBMISSION TO THE SENATE RURAL AND REGIONAL AFFAIRS AND
TRANSPORT REFERENCES COMMITTEE**

Inquiry into transport energy resilience and sustainability

Dear Mr Watling

Gas Energy Australia is pleased to make a submission to the Senate Rural and Regional Affairs and Transport References Committee's Inquiry into transport energy resilience and sustainability.

This Inquiry is very timely given widespread community concerns about the impact on Australia's liquid fuel security of recent terrorist threats to disrupt Australia's fuel imports along with current and prospective local oil refinery closures.

This submission will address the following issues identified in the Inquiry's Terms of Reference as being of particular relevance to Australia's transport energy resilience and sustainability:

- a. options for introducing mandatory oil stockholdings;
- b. the role of government in ensuring Australian energy for Australians, including maintaining refinery capability; and
- c. Australia's role and responsibility regarding energy security as a member of various multilateral fora.

However, from an energy security perspective, the overriding question that needs to be answered is what policies Australia should adopt to prevent its liquid fuel security from deteriorating from 2016 which the 2011 National Energy Security Assessment (NESA) concluded will occur in the absence of policy intervention. Gas Energy Australia considers that increasing the uptake of alternative fuels, especially gaseous fuels, offers Australia the best prospect of preventing this from happening, particularly in the face of ongoing closures of domestic oil refineries.



1. Gas Energy Australia and gaseous transport fuels

Gas Energy Australia is the national peak body which represents the bulk of the downstream alternative gaseous fuels industry which covers Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG). The industry comprises major companies and small to medium businesses in the alternative gaseous fuels supply chain; refiners, fuel marketers, equipment manufacturers, LPG vehicle converters, consultants and other providers of services to the industry.

LPG (autogas) is the most widely used alternative transport fuel in Australia and it is used mainly in light vehicles such as passenger vehicles and light commercial vehicles, including some light trucks. It fuels almost 500,000 vehicles, the majority being owned by private motorists, is the predominant fuel used by the taxi industry and is heavily used by fleet and trade vehicles, including light commercial vehicles.

In January this year, Gas Energy Australia, in partnership with the Victorian Automobile Chamber of Commerce (VACC), made a submission to the Federal Government's Economic Review of South Australia and Victoria highlighting the benefits of their joint proposal to restructure Australia's LPG vehicle manufacturing and conversion industries by establishing a national Centre of Excellence and new large-scale National Vehicle Conversion Facilities, as well as re-tasking the existing conversion industry. A summary of the proposal can be viewed by clicking [here](#). Since then, Gas Energy Australia and the VACC have discussed conducting a feasibility study of the proposal with key Federal, South Australian and Victorian politicians.

While not as well established as LPG, on the back of recent substantial infrastructure investments, the use of LNG and CNG has the potential to expand in a variety of domestic transport applications. While LNG is principally used to power heavy trucks, CNG is used to power a variety of vehicles including passenger vehicles, light commercial vehicles and small trucks, as well as buses and heavy trucks.

In November 2014, Gas Energy Australia commenced a campaign to seek community and industry feedback on two draft consultation papers it commissioned on the downstream LNG and CNG industries as part of the Association's **2030 Vision for Cleaner, Cheaper Australian Fuels**. The papers explore the current use of natural gas as a fuel in Australia, the barriers to its uptake, the potential for its increased use and the associated benefits. The draft consultation papers are available [here](#) while a summary of the two papers is attached at Enclosure 1.

2. Overview of gaseous transport fuels and energy security

In its recent submission responding to the Federal Government's Energy White Paper (EWP) Green Paper released in September 2014, Gas Energy Australia's identified 'Safeguarding transportation through fuel supply diversification' as one of the four top level strategic objectives for future energy policy in Australia.

Gas Energy Australia is concerned that that the EWP Green Paper does not pay sufficient attention to energy transport issues, especially transport energy resilience. Gas Energy Australia notes that the Bureau of Resources and Energy Economics (BREE) *2014 Australian Energy Statistics* publication estimates that the transport sector accounted for 26 per cent of Australia's total net energy consumption in 2012-13. In contrast, specific discussion of the transport sector in the EWP Green Paper accounts for just 3 per cent of its content.



This might not be a problem if there were no energy policy issues of concern in relation to the transport sector. However, in its submission responding to the EWP Issues Paper, Gas Energy Australia agreed with the conclusion of the *2011 National Energy Security Assessment* (NESA) that Australia's liquid fuel security will deteriorate from 2016. Moreover, Gas Energy Australia's submission concluded that the NESA did not place sufficient weight on the significant downside risk to global oil supplies posed by the potential for a major global oil supply shock (e.g., as a result of increased military action in the Middle East) or a shortfall in global investment over the medium or long term of the sort assessed by the International Energy Agency (IEA) in its 2011 World Energy Outlook.

"Liquid fuel security will deteriorate from 2016 ..."

Since Gas Energy Australia's submission responding to the EWP Issues Paper was lodged, the NRMA released in February 2014 another report on Australia's liquid fuel security prepared by strategic defence and security expert Air Vice-Marshal John Blackburn AO. This report elaborated on a similar report released a year earlier. In particular, it provided more detail on how other sectors of the Australian economy depend on the transport sector. It also highlighted how Australia's liquid fuel security problem had worsened.

In December 2014, a report titled "*Transport Fuels from Australia's Gas Resources – Advancing the Nation's Energy Security*" will be released. It will be based on research conducted by a team led by the University of New South Wales and comprising the CSIRO, the South Australian Government, Geoscience Australia, the University of Melbourne, the Grattan Institute, and the Australian Strategic Policy Institute. The report will look at how Australia's liquid fuel security might be improved and notes its exposure to supply disruption is exacerbated by non-compliance with the Australia's IEA treaty obligation to hold 90 days of the prior year's average daily net oil imports.

Importantly, this report concludes that Australian produced gaseous fuels offer the best prospect of improving Australia's liquid fuel security. This conclusion is consistent with the findings of the recently released BREE *Australian Liquid Fuels Technology Assessment* which concluded that gaseous fuels offer the lowest production costs now and over most of the report's projection period to 2050, and remain cost competitive with lower cost renewable technologies out to 2050.

The LNG and CNG draft consultation papers discussed above also conclude that Australian produced gaseous fuels offer the best prospect of improving Australia's liquid fuel security as well as reducing cost of living pressures, delivering more jobs for Australians and stronger economy and improving our environment.

Gas Energy Australia also notes the EWP Green Paper's acknowledgement that "increasing cost-competitive domestic production of alternative fuels could diversify the country's liquid fuel supply and strengthen fuel security".

"Alternative fuels can diversify fuel supply and strengthen fuel security..."

Consequently, it is clear that there are energy policy issues of concern in relation to the transport sector and that this sector needs to be accorded commensurate priority in the final EWP. Gas Energy Australia considers the references to transport fuels in the EWP Green Paper to be the absolute minimum to address the need for greater fuel supply diversity as well as cleaner and cheaper fuels. Moreover, transport related energy policy issues are likely to grow in importance given the findings in BREE's *2014 Australian Energy Statistics* publication that over the last ten years, energy use in the transport sector grew on average by 1.8 per cent each year compared to 1.1 per cent for total energy use.

As a result, Gas Energy Australia supports the NRMA's call for the development of a comprehensive Transport Energy Plan for Australia which would include a strategic plan to improve Australia's liquid fuel security.



Gas Energy Australia also supports the NRMA's call for the Government to work towards the objective of securing 30 per cent of Australia's transport energy from alternate sources by 2030.

In its submission responding to the EWP Green Paper, Gas Energy Australia suggested the EWP should set out a process to develop an alternative transport fuels policy in consultation with industry which would quantify what is a prudent take-up of alternative transport fuels in the shorter term i.e. by 2020. Following on from this, Gas Energy Australia suggested this policy should add a 2020 target for the take-up of such fuels to the 2030 target to which Australian governments would commit, along with actions to achieve both targets.

To improve future assessments of liquid fuel security, Gas Energy Australia also suggested the EWP should endorse implementation of a mandatory reporting mechanism for the BREE Australian Petroleum Statistics.

Gas Energy Australia's submission responding to the EWP Issues Paper also provided detail on a range of regulatory barriers to the take-up of gas powered vehicles and urged for their removal. Last month, Gas Energy Australia also made a submission responding to the 2014 Review of the *Motor Vehicle Standards Act 1989* (MVSA) which reinforced the need to remove these barriers.

Key message

Greater use of gas powered vehicles is a low cost way to improve Australia's fuel security

3. Gas Energy Australia response to Inquiry Terms of Reference

Gas Energy Australia offers the following responses to the issues identified in the Inquiry's Terms of Reference as being of particular relevance to Australia's transport energy resilience and sustainability.

a. Options for introducing mandatory oil stockholdings

Gas Energy Australia notes the statement in the EWP Green Paper that the Federal Government is currently considering possible options to respond to the issue of Australia's non-compliance with its obligation as member of the IEA to hold oil stocks equivalent to no fewer than 90 days of the previous year's average daily net imports.

The basic options the Federal Government faces to do this is for it to encourage or force the private sector to increase its stockholdings of refined fuel, establish its own oil stockpile similar to the Strategic Petroleum Reserve in the United States or mitigate the size of the required oil holdings by ensuring greater substitution of imported oil through increased use of cost effective and fit for purpose Australian fuels.

Gas Energy Australia is of the view that any consideration of options to increase Australia's oil stocks should be done on the basis of their cost and effectiveness in improving Australia's liquid fuel security compared to other options, rather than just meeting its obligation to the IEA as an end in itself.



Establishing and maintaining a national strategic petroleum reserve is not cheap. A 2005 study conservatively estimated that as at 2004, establishing and maintaining the Strategic Petroleum Reserve had cost US taxpayers between \$US41.2 to \$US50.8 billion (in 2004 dollars), or \$US65 to \$US80 per barrel of oil deposited in it.¹ In addition, Gas Energy Australia notes the EWP Issues Paper's estimate that building strategic reserve stocks to maintain compliance with the IEA treaty would cost \$6.8 billion and that this would be passed on to consumers in the form of higher energy costs unless funded by taxpayers.

Moreover, in terms of effectiveness, while releases from a stockpile can ameliorate temporary supply disruptions, they cannot offset long-term market disruptions. The only way to minimise the impact on Australia's economy of a long-term disruption to the global oil market and resulting sustained high oil prices is to reduce our dependence on, increasingly imported, oil.

b. the role of government in ensuring Australian energy for Australians, including maintaining refinery capability

Gas Energy Australia considers that governments clearly have a role in ensuring energy security because it, like defence, is in the nature of a public good that the private sector will not provide in sufficient amounts given the social costs of a disruption to energy supplies will exceed the private costs incurred by energy suppliers. How governments should do this and to what extent is far more difficult to determine.

With regard to the impact of domestic oil refinery closures on Australia's liquid fuel security, Gas Energy Australia notes that the Federal Government's 2012 Energy White Paper (EWP), which draws on the 2011 NESA, concluded:

- 1) the decline in Australia's domestic refining capacity that will follow the Clyde and Kurnell refinery closures will not impair Australia's liquid fuel security; and
- 2) in particular, the substitution of imports of crude oil for imports of refined fuel as a result of the Clyde and Kurnell refinery closures does not pose any additional risk to market security.

That said, the 2012 EWP conceded that retention of a domestic refining presence does offer Australia some liquid fuel security benefits which need to be assessed against the associated costs.

This Submission will not attempt to estimate what is the critical level of domestic refining capacity at which further closures would imperil Australia's liquid fuel security. Instead, its principal focus is on how Australia should respond to the 2011 NESA's conclusion that our liquid fuel security will deteriorate from 2016 as a result of continued rising oil prices as well as increased import reliance combined with decreased non-OPEC and conventional oil supplies, leading to a greater reliance on international supply chains and geopolitically and geologically difficult locations. As noted above, the key question that needs to be answered is what policies Australia should adopt to prevent this from happening.

The Federal Government could try to prevent any more oil refinery closures through some form of industry assistance. Apart from noting the likely high cost, Gas Energy Australia considers that governments are best placed to judge the merits of such a policy from the perspective of the overall impact of oil refinery

¹ Taylor and Van Doren, The Case Against the Strategic Petroleum Reserve, Policy Analysis, November 21, 2005, Cato Institute.



closures on Australia's economy. However, as alluded to in the 2012 EWP, until the critical level of domestic refining capacity at which further closures would imperil Australia's liquid fuel security is reached, ensuring imports of refined fuel do not replace imports of crude oil is unlikely to improve energy security.

When Australia joined the IEA shortly after its establishment in November 1974 in response to the 1973 Arab oil embargo, there were no widely available alternatives to oil-based fuels. That situation has changed and the current situation is reflected in the findings of the Strategic Framework for Alternative Transport Fuels (SFfATF) released by the Commonwealth Government in December 2001.

Gas Energy Australia welcomed the acknowledgement in the 2011 NESA and the SFfATF that it is prudent to maintain a diverse energy supply and encourage the development of commercially viable alternative liquid fuels and technologies. It also agrees with the 2011 NESA's conclusion that diversity of supply, including access to alternative fuels, helped Australia maintain its liquid fuel security in the face of a spate of unhelpful events, including a return to high global oil prices, the political crisis in Libya, as well as oil spills and natural disasters.

Gas Energy Australia also welcomes the Government's Energy White Paper Green Paper's acknowledgement that "increasing cost-competitive domestic production of alternative fuels could diversify the country's liquid fuel supply and strengthen fuel security".

Not only is Australia completely self-sufficient in LPG but it is also a net exporter of LPG. In 2013, Australia produced 2,317 kilotonnes of LPG, satisfying a local demand of 1,539 kilotonnes with net exports of 815 kilotonnes. Gas Energy Australia acknowledges the findings of the 2011 NESA that self-sufficiency or adequacy alone does not guarantee energy security. Nevertheless, it wishes to highlight the fact that Australia's LPG industry has the infrastructure and product affordability to also make a significant contribution to Australia's energy security in term of reliability and competitiveness. This infrastructure is extensive and includes seven natural gas processing plants, nine coastal terminals, 170 regional depots, 1,000 local small business distributors and over 3,700 Autogas refueling stations across Australia.

Australia also possesses vast natural gas reserves which the Federal Government, in its 2012 Energy White Paper, estimated to be equivalent to 184 years of supply at current production rates. The contribution of these reserves to Australia's liquid fuel security as a substitute for petrol and diesel will increase in line with the progressive roll-out of LNG and CNG refuelling infrastructure. In addition, currently 81 per cent of LPG produced in Australia comes from processing natural gas from these reserves and this proportion is expected to rise as a result of further refinery closures and increasing natural gas production.

Development of Australian fuels also creates jobs for Australians. The following initial response to the Gas Energy Australia 2030 Vision for Cleaner, Cheaper Australian Fuels by Engineers Australia recognises the domestic skills and employment benefits that flow from the domestic production of fuel.

"Australia has a natural gas advantage that should translate into a world leading natural gas industry and competitive advantage driving economic growth and local engineering, design and other jobs. Engineers Australia supports the need for a diverse domestic fuel market in Australia ensuring we are not 100% dependent on foreign fuel imports."²

² Engineers Australia, 6 November 2014.



Further, as noted in both the Association's proposal to restructure Australia's autogas industry and its *2030 Vision for Cleaner, Cheaper Australian Fuels*, greater use of gaseous fuels would also reduce air pollution such as particulates and greenhouse gas emissions. Consequently, there would be extra community benefits as well as a strategic benefit from greater use of gaseous fuels.

c. Australia's role and responsibility regarding energy security as a member of various multilateral fora

Gas Energy Australia considers Australia should take seriously its energy security obligations as a member of various multilateral fora. However, Australia's membership of various multilateral bodies such as the IEA should have clear objectives and be backed by an assessment of whether those objectives could be achieved more effectively in other ways bearing in mind the costs of any obligations that come with membership.

In particular and as noted above, any consideration of options to increase Australia's oil stocks should be done on the basis of their cost and effectiveness in improving Australia's liquid fuel security compared to other options, rather than just meeting its obligation to the IEA as an end in itself.

4. Conclusion

As outlined above, Australia could respond to recent terrorist threats to disrupt Australia's fuel imports along with current and prospective local oil refinery closures in a variety of ways and with differing likely costs and effectiveness.

Increasing the uptake of alternative fuels, especially gaseous fuels, offers Australia the best prospect of preventing its liquid fuel security from deteriorating from 2016, particularly in the face of possible further closures of domestic oil refineries. However, for this to happen, governments and industry must work together to reduce barriers to the uptake of alternative transport fuels and adopt an overarching aspirational target for the take-up of such fuels to which they would commit - along with actions to help achieve the target.

Indeed, Gas Energy Australia notes that substituting just 30 per cent of Australia's near total dependency on imported fuel would not only deliver improved fuel security over a period the Government's own assessments indicate it will deteriorate, it also retains local engineering skills in an area of natural advantage and provides clear direct action in reducing both carbon and other emissions. Moreover, every 10 per cent substitution of imported diesel by Australian gaseous fuels saves \$870 million in import costs - so it's also good for our balance of payments and the economy.

5. Recommendation

Gas Energy Australia recommends that the Senate Rural and Regional Affairs and Transport References Committee support its recommendations that the Government's EWP should:

- a. endorse development of a comprehensive Transport Energy Plan for Australia which would include a strategic plan to improve Australia's liquid fuel security;
- b. set out a process to develop a diversified Australian transport fuels policy in consultation with industry which would quantify what is a prudent take-up of alternative transport fuels by 2020;



- c. commit the federal government to achieving the 2020 target along with the objective of securing 30 per cent of Australia's transport energy from alternate sources by 2030 and getting other Australian governments to commit to both targets, along with actions to achieve them;
- d. endorse implementation of a mandatory reporting mechanism for the BREE Australian Petroleum Statistics to improve future assessments of liquid fuel security; and
- e. accord high priority to reforming regulations that act as a barrier to the take-up of gas powered vehicles.

For your consideration.

Yours sincerely

Michael Carmody
Director and Chief Executive Officer

Enclosure: 1. A. *Clean, Cheaper, Australian Fuels Our 2030 Vision* (separate document)

Distribution: Members of the Senate Rural and Regional Affairs and Transport References Committee

For Information:

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