



9 September 2016

Mr Geoff Willis
Chair
Energy Security Taskforce
c/- Department of State Growth
GPO Box 536
HOBART TAS 7001

Via email energysecuritytaskforce@stategrowth.tas.gov.au

Dear Mr Willis

Gas Energy Australia is pleased to make a submission responding to the consultation paper released by the Tasmanian Energy Security Taskforce.

By way of background, Gas Energy Australia is the national peak industry body for the bulk of the downstream gaseous fuels industry, including Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG). Our members including a range of businesses in the gaseous fuel supply chain from major companies to small businesses that are refiners and suppliers, fuel marketers, vehicle and equipment manufactures and vehicle converters. Locally in Tasmania, our members include BOC, BP, Caltex, Elgas, LNG Refuellers and Origin Energy.

In our submission, we point to the contribution a diversified range of energy sources including gas can make to Tasmania's future energy security in a cost effective manner. Increasing and supporting various forms of distributed energy resources for households and businesses will help to reduce disruptions and reduce the pressure on existing energy generators without the significant capital expense of major distribution systems and duplication that is hard to amortise over Tasmania's relatively small population.

Allied to this, we suggest that a duplication of the Basslink interconnector won't necessarily increase energy security, noting that the generating and distribution system it in turn relies on is subject to its own intermediate and long term pressures – not the least the changing policy settings on emissions and increased demand from other States. For these reasons, we consider the best approach is to diversify and increase the capacity of the range of lower emitting energy sources produced and readily available in Tasmania. The Basslink interconnector duplication risks becoming a significant additional burden on taxpayers, without the certainty of an increase in energy security.

Lastly, our submission outlines the flexibility of gaseous fuels in that they can be transported by tanker to essentially create virtual pipelines of energy without the capital expense of fixed pipelines. Not only will any increase in localised gaseous fuels supported applications reduce the pressure on the electricity grid, but the backup systems for gaseous fuels production provides for flexible emergency responses to short-term energy shortages.

Not only are gaseous fuels already produced in Tasmania with some additional capacity availability (and relatively quick and inexpensive to expand capacity), but because they are up to 25% cleaner than other high emitting fuels, they are in keeping with the national commitment to reduce carbon emissions.

Notably, Tasmania has been a leader and early adopter of cleaner gaseous fuels which have supported a range of leading local industries seeking to promote Tasmania's green brand and exports by reducing emissions and pollution throughout their supply chains.

Accompanying our submission is our 2030 Vision for Domestic Natural Gas Fuels (ie Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG) and our Vision for Stationary Energy Liquefied Petroleum Gas (LPG). Both Visions outline the many ways that Australian governments and industry can work together to provide all Australians, including Tasmanians, with cleaner and cheaper sources of energy. Our Visions also note the energy security problem we are facing and that diversification across a range of cleaner Australian fuels is the key to addressing this problem. You can learn more about our Visions or download a copy at www.cleanercheaperfuels.com.au.

We would be more than happy to discuss our submission in more detail with the Taskforce and how gaseous fuels can help to improve Tasmania's energy security.

Yours sincerely

A handwritten signature in black ink, appearing to read "John Griffiths", with a long horizontal line extending to the right.

John Griffiths

Chief Executive Officer



Tasmanian Energy Security Taskforce

Consultation paper

Submission Form

This document provides a form which respondents may find helpful in providing answers to the questions presented in the Taskforce's consultation paper. The Taskforce recommends that you read the consultation paper to understand the context in which the Taskforce has posed the questions. The Taskforce will also welcome submissions in other formats should respondents prefer not to use this form.

Should you wish to claim confidentiality in relation to all or part of your submission, please clearly indicate the reasons for your claim. If only parts of your submission are requested to be confidential, please attach the confidential parts separately to the remainder of your submission that is suitable for publication.

Submission details	
Name:	John Griffiths
Organisation (if applicable):	Gas Energy Australia
Contact (optional and not to be published):	

1. What are the specific risks to Tasmanian energy security that you think the Taskforce should consider?

Accompanying our submission are our Visions for Natural Gas Fuels (i.e. Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG) and Stationary Energy Liquefied Petroleum Gas (LPG) which can be found at www.cleanercheaperfuels.com.au. Both Visions outline the many ways that Australian governments and industry can work together to provide all Australians, including Tasmanians, with cleaner and cheaper sources of energy. Our Visions also note the energy security problem we are facing and that diversification across a range of cleaner Australian fuels is the key to addressing this problem.

The principal risk to Tasmania's energy security is that it has a portfolio of energy supply assets which is heavily weighted towards sources of supply prone to significant and sometimes prolonged disruptions as demonstrated by recent events. This includes constrained ability to generate hydro-electricity as a result of drought, which will become more of a problem if extreme climate events, the sort of which the Taskforce's consultation paper notes could become more frequent in the future while still being difficult to predict, were to occur.

With 90% of its electricity generation capacity concentrated in renewable sources, Tasmania's energy security could be significantly improved through diversification into other energy sources which have different risk profiles. These include distributed energy resources. In contrast to centralised electricity generating facilities such as coal and gas fired power stations, hydroelectric dams and large-scale wind farms, all of which typically require electricity to be transmitted over long distances, distributed energy is decentralised, modular and located close to the energy need it meets. Examples of distributed energy resources include roof top solar water heaters and photo-voltaic panels, off-grid diesel and gas electricity generators and gas, both natural gas and LPG used in homes or businesses to heat water, cook or provide warmth. Gaseous fuels can

support a range of distributed energy options and are also consistent with State and National commitments to cleaner, lower emitting energy.

The risk to Tasmania's energy security would increase if the Tasmanian Government were to further concentrate its energy supply assets into more of the same i.e. large-scale renewable energy projects and another undersea cable. Noting Tasmania's small population, duplication of expensive large scale energy infrastructure is less likely to be the most cost effective option.

Instead, the Government should look at what other clean energy sources are available, continue to diversify its energy sources and look towards cleaner energy sources instead of importing higher emitting brown coal fired electricity when other supplies are disrupted.

2. What risks are acceptable to you or your business in terms of energy security and the risk/cost trade off? How well are you or your business able to manage energy supply disruptions?

Gas Energy Australia has no comment to make on this question.

3. What level of reliable electricity supply is required by customers? Do customers consider reliability should be as close as possible to 100 per cent at all times, or would, for example, reliable supply closer to 99 per cent of the time be acceptable if the cost is significantly less?

Gas Energy Australia has no comment to make on this question.

4. How well are Tasmania's energy security risks understood and communicated to the community?

Gas Energy Australia congratulates the Tasmanian Government for releasing this consultation paper which is an important initial step to better inform the Tasmanian community about the energy security challenges it faces.

The Tasmanian community would also benefit from being better informed about the full breadth of risk management approaches to address these challenges. The consultation paper tends to focus on the grid supply of electricity from new renewable energy projects or another undersea cable as means to improve energy security.

Gas Energy Australia considers the Tasmanian community would benefit from a broader cost benefit analysis in a technology neutral manner of other options to address the state's energy security covering their risk reduction benefits, emission performance and costs to facilitate objective comparisons. For example, an alternative solution would be to increase the use of distributed energy resources by Tasmanian households and businesses and decrease dependence on Tasmania's electricity network. This would also enable Hydro Tasmania to export more electricity to the mainland.

As outlined in our Vision documents, both industry and government need to work together to continue to educate the community about the range of lower emitting energy sources available to them and how using a range of energy sources can help to mitigate against supply disruptions.

5. What existing frameworks for assessing and monitoring energy security might the Taskforce wish to consider?

The Tasmanian Government should align its approach to assessing and monitoring energy security with that used in the Federal Government's 2011 National Energy Security Assessment to ensure national consistency.

Importantly the framework should emphasise diversity of locally available sources rather than exposure to individual high cost sources.

6. Which potential energy security solutions should the Taskforce consider?

Gas Energy Australia considers that diversification across a range of available sources is likely to provide more security than increasing dependence on such things as an additional Basslink interconnector.

As noted in our answer to Question 4, the Tasmanian community would benefit from a cost benefit analysis in a technology neutral manner of a broad range of options to address the state's energy security covering their risk reduction benefits, emission performance and costs.

One option would be to make better use of Tasmania's existing natural gas infrastructure assets. These include not only the Tasmanian Gas Pipeline (TPG) and the Tamar Valley gas fired power station, but also the BOC LNG plant in Westbury which can produce the equivalent of 70,000 litres of diesel per day which would improve both Tasmania's liquid fuel security and environment.

Gas Energy Australia notes that the Productivity Commission's 2011 *Carbon Emission Policies in Key Economies* research report estimates that the cost per tonne of carbon abatement for the Commonwealth Government's Renewable Energy Target was between \$42 and \$129 compared to \$18 for the Queensland Gas Scheme which incentivised uptake of gas powered electricity generation. These figures give an indication of the ability of gas-fired electricity generation to meet both environmental and cost-effectiveness criteria better than renewable energy options. Importantly, natural gas can provide both reliable and affordable baseload power using existing infrastructure and technology which would significantly enhance Tasmania's energy security as was demonstrated by recent events.

In relation to possible concerns about the security of future supplies of natural gas, Gas Energy Australia also notes that the 2014 Eastern Australian Domestic Gas Market Study conducted jointly by the Federal Department of Industry and the Bureau of Resources and Energy Economics (BREE) concluded there are sufficient natural gas resources in eastern Australia,

including Tasmania, to meet both future domestic and LNG export needs. And while the Study examined how government actions and market imperfections might result in price spikes as the eastern Australian gas market becomes more export focussed, the following subsequent developments make this less likely over time.

- The current construction by Jemena of a pipeline which will bring gas from the Northern Territory and Timor Sea to the eastern Australian gas market by 2018.
- Growing supplies of LNG from North America into the Asia-Pacific market as a result of the construction of new LNG plants to process shale gas production and the widening of the Panama Canal, which will exert further downward pressure on LNG prices in Australia's North Asian LNG export markets.
- Agreement at the August 2016 COAG Energy Council meeting on a gas supply strategy to increase gas availability and reduce prices by Australian governments working together to increase onshore gas supply as well as establishing two wholesale gas trading hubs and boosting transparency in gas contracts.
- The recent announcement that the APA Group will build a pipeline to be commissioned in 2018, linking gas reserves developed for Queensland's LNG export projects to the eastern Australian gas market.

Another option, would be to make greater use of distributed energy resources which we discussed in our answer to Question 1. The Federal Government's 2015 Energy White Paper acknowledged the role distributed energy currently plays, and the potential it has to play a larger role, in reducing energy costs, improving stationary energy security and improving reliability standards in terms of lessening loads on grids, reducing infrastructure investment needs and improving overall energy supply resilience.

As a distributed energy source, LPG has given Australian households and businesses access to gas for cooking, space and hot water heating since the 1950s and has provided a pathway for consumer acceptance and take-up of natural gas. In 2014, Gas Energy Australia conducted a survey of the value the Association's members' stationary energy LPG interests represent to Australia and its people. The survey found that Gas Energy Australia members supply stationary energy LPG to over almost 19,000 Tasmanian households and businesses not including recreational (e.g. barbeque and camping) and autogas customers.

And while not as well established as LPG, the use of LNG and Compressed Natural Gas (CNG) has the potential to expand in a variety of stationary energy applications, especially power generation in regional and remote areas. Indeed, Tasmania has more LNG infrastructure than a number of larger mainland states. In addition to the BOC LNG plant in Westbury, which has been operating since 2011 and supplies fuel for a dairy product processor, a pulp mill and an asphalt plant, the Launceston based company LNG Refuellers operates five LNG fuelling sites across Tasmania as well as running the largest LNG powered truck fleet in Australia, and there is a training facility for LNG users in Launceston. Moreover, Tas Gas is currently supplying CNG fuel for trucks operated by Hobart City Council. Later this year, Tasmanian Bass Strait shipping line SeaRoad will begin operating the world's largest LNG fuelled roll-on roll-off ship between Tasmania and Victoria which will be the first vessel operating in Australia to use this more environmentally friendly locally produced fuel.

Increased use of distributed energy such as gaseous fuels as a stationary energy source can delay or postpone indefinitely the significant costs of expanding or upgrading electricity and natural gas grids as well as reduce the strain on the electricity grid during peak load periods. This can be especially critical in remote areas where electricity supply is restricted. In this way, increased use of gaseous fuels as a stationary energy source can achieve the same result as the use of demand-side participation measures to encourage energy productivity and reduce peak energy use.

Because gaseous fuels are portable and can be readily transported virtually anywhere by sea, rail or road, their supply chain, which is in effect a 'virtual pipeline', is especially resilient. The portability and the resilience of gaseous fuels' supply chains make them especially well-suited to support areas affected by emergencies and natural disasters. As a result, while not as visible as some critical energy infrastructure such as major power lines or natural gas pipelines, the gaseous fuels industry nonetheless represents a valuable and unique national asset in terms of its resilience and ability to fuel a wide range of energy applications anywhere across Australia.

Gas Energy Australia also notes that Australia's disaggregated gaseous fuels distribution infrastructure is privately owned and is generally small-scale so it can be readily expanded in response to consumer demands. It also is not subsidised by taxpayers.

7. What international examples of water storage management practices should be considered by the Taskforce when reviewing Hydro Tasmania's approach?

Gas Energy Australia has no comment to make on this question.

8. What governance arrangements might be useful to consider in strengthening water storage management in Tasmania?

Gas Energy Australia notes that while improving the management of water storage would benefit energy security and reliability, this option should be objectively assessed based on its risk reduction benefits, environmental effectiveness and cost along with a broad range of alternative options as discussed above. Regardless of improvements to water storage management processes, Tasmania's water levels will still be limited by rainfall and hence its exposure to variable rainfall, which will be exacerbated by climate change, remains. Consequently, energy supply diversification into resources which are unaffected by climate change, such as low emission gaseous fuels, would more effectively improve Tasmania's energy security.

More broadly, Gas Energy Australia suggests water storage management in Tasmania could be strengthened by lessening the weighting given to a conflicting driver, "energy production" in the management regime. Reducing Tasmania's reliance on hydro-electric power generation by switching to other energy sources such as distributed generation, including gaseous fuels, would allow a much more environmentally sustainable water management strategy to be implemented. As mentioned previously, gaseous fuels can support a range of distributed energy options and are also consistent with State and National commitments to cleaner, lower emitting energy.

9. What economic opportunities and risks are there for Tasmania associated with a second Bass Strait interconnector, and how would it improve Tasmania's energy security?

As noted above, all options to improve Tasmania's energy security should be assessed based on the criteria of risk reduction benefits, emission performance and cost. Regarding the option of a second interconnector, Gas Energy Australia considers its impact on Tasmania's energy security would be minimal. This is because energy security is improved by diversifying the portfolio of energy assets. A second interconnector would further concentrate the state's energy portfolio into assets with similar risk characteristics ie, the existing Basslink interconnector. In addition, it is unlikely a second interconnector's revenues would be sufficient to cover its costs in the foreseeable future without a major expansion of renewable energy generation capacity in Tasmania, as acknowledged in the June 2016 Feasibility of a second Tasmanian interconnector Preliminary Report. Consequently, these costs would be passed onto consumer or taxpayers which could actually reduce Tasmania's energy security.

In terms of economic opportunities from a second interconnector, Gas Energy Australia notes that there would be a temporary increase in employment during the construction phase. However, there would be limited employment opportunities associated with its operation and maintenance. On the other hand, while there is natural gas network infrastructure already in place and expansion of the 'virtual pipeline' to supply more gaseous fuels (ie LPG, LNG and CNG) would require relatively little infrastructure, the operation and maintenance of gas supplies is more labour intensive than managing a cable. Hence, there would be ongoing employment benefits to the Tasmanian economy from increasing gas's role in Tasmania's energy supply in addition to improved energy security.

As outlined in our Vision documents, the best way to mitigate against energy security risks is to diversify energy sources and increase the uptake of local sources of energy including Tasmania's abundant supplies of lower emitting gaseous fuels.

10. How might the Taskforce consider the role for gas generation in Tasmania relative to other options to maintain energy security and the associated costs and risks?

The Taskforce should consider all potential options for maintaining energy security based on a detailed and objective assessment of their risk reduction benefits, emission performance and cost. Given that independent and collaborative research including the CO2CRC's *Australian Power Generation Technology* (APGT) report highlighted the significant advantage of gas powered electricity generation in flexibility, fuel availability, water requirement, cost and emission performance compared to other technologies, this option should be included for consideration.

The different roles that gas, both LPG and natural gas, could play extend beyond electricity generation, which include off-grid generation and fuel switching for household and business appliances and equipment, should also be explored. These applications would improve energy security through reducing dependence on the electricity network and represent low emission alternatives which are both more cost-effective and reliable than renewable energy options.

As the Taskforce would be aware, gaseous fuels are up to 25% cleaner than diesel, produce less toxic emissions and can be transported by virtual pipeline removing the need for expensive infrastructure.

On its own or as part of hybrid renewable generators, cleaner cheaper Australian gaseous fuels are in line with the desire of Tasmanians to use cost effective and cleaner sources of energy.

11. What can be done to strengthen the Tasmanian gas market without significant subsidy from Government and costs on taxpayers or consumers?

Gas Energy Australia notes that government support for renewable energy has and continues to impose significant costs on consumers and taxpayers. The 2015 Institute for Energy Research report, *The Levelised Cost of Electricity from Existing Generation Resources* estimated that the levelised cost of electricity from hydro and wind generators is \$116.80 and \$112.80 per MWh respectively compared to \$73.40 for conventional combined cycle gas generators. Continuing government support for renewable energy to improve energy security would represent a far greater burden on taxpayers given its high costs and inability to provide baseload power compared to gas.

Gas Energy Australia suggests that extending the eligibility of government support such as the Small-scale Renewable Energy Scheme to include gas in climate change policies would achieve both environmental and energy security objectives for Tasmania. The use of LPG and natural gas has the ability to reduce dependence on the electricity grid through fuel substitution in household and business applications and off-grid generation. In addition, increasing the share of electricity generation assets capable of producing low cost baseload power would also assist. However, we encourage the Tasmanian Government assess a broad range of options based on their risk reduction benefits, cost and emission performance rather than current approach of focusing on the options of additional renewable energy development and a second interconnector.

12. How could the potential expansion of renewable energy generation in Tasmania help long term energy security without creating increased costs for consumers?

Gas Energy Australia notes that the APGT report has classified renewable energy technologies including solar, wind and hydro generation as having unfavourable water requirement, availability, flexibility or cost characteristics. A diverse portfolio of renewable energy options would reduce risks to energy security compared to relying on one specific type. However, this principle should be applied more generally in the sense that the Tasmanian Government should be open to a broad range of energy solutions for assessment in addition to renewable technologies and a second interconnector.

The current approach and focus on a narrow set of options may prematurely exclude solutions which may improve long term energy security more effectively and at lower cost. The results of the 2015 Institute for Energy Research report discussed above highlight how renewable energy options would be likely to impose higher energy costs directly on consumers or indirectly on taxpayers if supported by governments.

As noted in our previous answers, a broad range of potential solutions, in addition to expansion of renewable energy generation, should be objectively assessed based on risk reduction benefits,

cost and emission performance. This would allow environmental and energy security objectives to be achieved at minimal cost to consumers and taxpayers.

13. Which renewable energy technologies and products present the best opportunity for Tasmania and why?

Gas Energy Australia notes that the Tasmanian Government has an interest in solar, wind and hydro energy developments. The APGT report notes that these technologies all have shortcomings including water requirements, cost, supply flexibility, and/or availability. Hence, these technologies are not likely to meet the energy security and economic objectives of Tasmania by themselves.

Gas Energy Australia considers restricting the focus to a narrow range of technologies and products could prematurely exclude alternative solutions, which may be more effective at addressing energy security and greenhouse gas (GHG) abatement goals at lower cost, from consideration. For example, the US Department of Energy's *Life Cycle Assessment Harmonization* project estimated that life cycle GHG emissions natural gas plants is 470g CO₂-e/kWh compared with 1,001g CO₂-e/kWh for coal fired plants. Increasing the share of gas powered generation options would represent a significant improvement on the emissions intensity of the electricity generation sector in Australia which remains reliant on coal.

Our 2030 Vision document highlights that a clean energy future doesn't have to be renewables or fossil fuels, instead it should be technology neutral to allow consumers to decide which energy sources can deliver the cleanest energy source for the application – noting that renewables don't have the capacity to deliver baseload power.

Gaseous fuels, as one of the cleanest fuels available at scale, should be part of the energy future as we transition away from less clean fuels like diesel and brown coal.

14. Is there a limit on the level of intermittent renewable generation that Tasmania can sustain without affecting the reliability of the network, or requiring significant cost to strengthen the network?

Not only is the cost of electricity from hydro and wind generators much higher than that for conventional combined cycle gas generators as demonstrated in the 2015 Institute for Energy Research report but intermittent renewable generation is also inherently less effective at improving reliability of the network compared to baseload capable generation technologies. Hence, there is also a trade-off between the level of intermittent renewable energy generation and Tasmania's energy security.

Gas Energy Australia notes that there are options which do not require the Tasmanian Government to make this trade-off while also addressing environmental objectives. For example, natural gas is capable of supporting baseload electricity at low cost as well as reducing GHG emissions as shown by the US Department of Energy's *Life Cycle Assessment Harmonization* project. As discussed above, another solution would be to expand the use of LPG and natural gas as distributed energy to be directly combusted in domestic and business appliances and equipment to reduce dependence on the electricity network.

As noted in our previous answers, the Tasmanian Government should assess a broad range of solutions to improve energy security based on risk reduction benefits, cost and emission performance criteria. The current approach in the consultation paper to limit the focus to only a narrow set of options would require Tasmania to make unnecessary trade-offs between these objectives.

15. Are there material barriers to the take up of emerging energy products and services in Tasmania?

Greater use of gaseous fuels as a source of distributed energy in remote and regional areas faces a number of barriers, mainly in the form of government policies, regulation and ownership of electricity generation and distribution assets. As a result, Gas Energy Australia strongly supports the removal of unnecessary regulations that inhibit the functioning of Australia's energy markets.

All government policy on energy should be technology neutral in respect to all cleaner energy technologies, not just renewables.

With regard to the lack of cost reflective electricity pricing, Gas Energy Australia agrees with the previous findings of the COAG Standing Council on Energy and Resources that cross-subsidies can "distort efficient consumption, affect production efficiencies and lead to cost padding". Gas Energy Australia considers the presence of such cross-subsidies, especially those benefitting electricity consumers in remote and regional areas, end up disadvantaging other electricity consumers and/or taxpayers depending on how the subsidies are funded. In particular, fulfilment of community service obligations (CSOs) in remote areas is often very expensive and ends up supporting costly and emissions intensive diesel power generation.

As a result, Gas Energy Australia supports additional regulatory reforms to make electricity prices more reflective of costs which in time might entail empowering consumers by providing CSO payments direct to them and allowing the consumer to choose the cleanest and cheapest options.

Similarly, Gas Energy Australia does not support government policies to subsidise energy network infrastructure expansion which assists some consumers living in regional and remote areas, but penalises others through higher taxes and charges. As noted above, Australia's disaggregated gaseous fuels distribution infrastructure is privately owned and is not subsidised by taxpayers.

In addition, there are existing climate change and environmental government policies which favour particular technologies such as the Small-scale Renewable Energy Scheme and the Australian Renewable Energy Agency program. This approach acts as a barrier to the take up of other low emission energy sources and ends up distorting the competitive process which imposes extra costs on consumers and taxpayers.

Greater focus on outcomes rather than choosing particular products for support would remove this barrier and help to achieve outcomes more effectively. Gas Energy Australia expresses concern that the approach proposed in the consultation paper to addressing energy security is favouring particular products and services. Gas Energy Australia encourages the Tasmanian Government to take a more objective technology neutral approach by assessing a broad range of solutions based on risk reduction benefits, cost and emission performance criteria.

16. Is there a timeframe where renewable energy developments could be more favoured in Tasmania than elsewhere?

Gas Energy Australia has no comment to make on this question.

17. What impact will the national commitment to reduce carbon emissions have on renewable energy development in Tasmania and in the wider NEM?

The impact on renewable energy development from the national commitment to carbon emission reduction will depend on the extent to which governments adopt technology neutral policies. For example, the Productivity Commission's 2011 *Carbon Emission Policies in Key Economies* research report discussed above indicates that the technology neutral emissions trading scheme operating in the European Union has resulted in significant uptake of low cost abatement activities including gas powered electricity generation.

However, mandating quotas or targets on particular energy sources through continuing programs such as the Renewable Energy Target will ensure a given level of renewable energy development in Australia, but hinder the energy market's ability to achieve the most efficient and least cost energy mix for meeting environmental goals.

18. Are there other climate change related implications for energy security in Tasmania?

Gas Energy Australia notes that while Tasmania has significant wind resources now, the Taskforce should consider the impact of climate change on these resources and long term energy security.

19. Are there other scenarios with energy security implications in Tasmania that the Taskforce should be considering?

Tasmania's, along with the rest of Australia's, growing dependence on imported oil for transport and backup and remote power generation reduces the state's energy security. A 2014 report titled "Australia's Liquid Fuel Security Part 2" prepared by strategic defence and security expert Air Vice-Marshal John Blackburn AO provided detail on how other sectors of the Australian economy depend on the transport sector and highlighted how Australia's liquid fuel security problem had worsened. It concluded policymakers had placed insufficient 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).

A similar conclusion was reached by another 2014 report titled "Transport Fuels from Australia's Gas Resources – Advancing the Nation's Energy Security". It was 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 looked at how Australia's liquid fuel security might be improved and noted its exposure to supply disruption is exacerbated by non-compliance with the Australia's International Energy Agency treaty obligation to hold 90 days of the prior year's average daily net oil imports.

Importantly, this report concluded 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 2015 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.

It should also be noted that Tasmania has been a leader in substituting dirty imported diesel with cleaner locally produced gas in the road transport sector and as noted above, Launceston based LNG Refuellers operates the largest LNG powered truck fleet in Australia. This leadership will be strengthened later this year when, as discussed above, SeaRoad begins operating the world's largest LNG fuelled roll-on roll-off ship. This will reduce the carbon footprint of Tasmania's exports thus further enhancing Tasmania's green brand. It will also demonstrate to governments and other ship operators the practical benefits of using this environmentally friendly locally produced fuel for marine transport.

Are there any other comments or input that you would like to provide to the Taskforce?

In summary, a diversified range of energy sources including gas can make a significant contribution to Tasmania's future energy security in a cost effective manner. Increasing and supporting various forms of distributed energy resources for households and businesses will help to reduce disruptions and reduce the pressure on existing energy generators without the significant capital expense of major distribution systems and duplication that is hard to amortise over Tasmania's relatively small population.

Gaseous fuels are very flexible in that they can be transported by tanker to essentially create virtual pipelines of energy without the capital expense of fixed pipelines. Not only will any increase in localised gaseous fuels supported applications reduce the pressure on the electricity grid, but the backup systems for gaseous fuels production provides for flexible emergency responses to short-term energy shortages.

And not only are gaseous fuels already produced in Tasmania with some additional capacity availability (and relatively quick and inexpensive to expand capacity), but because they are up to 25% cleaner than other high emitting fuels, they are in keeping with Tasmania's green brand and the national commitment to reduce carbon emissions.

In closing, Gas Energy Australia would welcome the opportunity to further discuss our submission and our Visions for Natural Gas Fuels and Stationary Energy LPG and how gaseous fuels can assist Tasmania with its clean energy future and energy security.

Do you wish to claim confidentiality for all or part of your submission? Please explain your reasons for seeking confidentiality.

No