



GAS ENERGY AUSTRALIA

SUBMISSION

**GAS ENERGY AUSTRALIA
SUBMISSION TO THE
SENATE ECONOMICS LEGISLATION COMMITTEE
INQUIRY INTO THE
AUSTRALIAN RENEWABLE ENERGY AGENCY (REPEAL) BILL 2014**

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11 July 2014

Dr Kathleen Dermody

Committee Secretary
Senate Economics Legislation Committee
PO Box 6100
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CANBERRA ACT 2600

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

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GAS ENERGY AUSTRALIA SUBMISSION TO THE SENATE ECONOMICS LEGISLATION COMMITTEE

Inquiry into the Australian Renewable Energy Agency (Repeal) Bill 2014

Dear Dr Dermody

Gas Energy Australia is pleased to accept the Senate Economics Legislation Committee's invitation to make a submission to its Inquiry into the Australian Renewable Energy Agency (Repeal) Bill 2014.

Gas Energy Australia welcomes government initiatives to support the development of projects and technologies capable of reducing greenhouse gas (GHG) emissions. That said, in keeping with its mission "to optimise the value of gaseous fuels for the benefit of the national interest and the community...leading to improved energy security, carbon reduction, lower energy costs and the development and growth of the industry", Gas Energy Australia does not support gaseous fuel related projects and technologies being excluded from such initiatives.

Consequently, Gas Energy Australia supports the repeal of the *Australian Renewable Energy Agency Act 2011* and the closure of the Australian Renewable Energy Agency (ARENA).

Gas Energy Australia considers all technologies should be allowed to compete objectively on the basis of abatement performance and cost effectiveness. Government bodies such as ARENA that have been arbitrarily restricted to developing renewable energy sources are denied the opportunity to develop other projects and technologies capable of delivering superior abatement performance at a lower cost.

This submission will demonstrate how non-renewable but nonetheless low emission gas technologies can deliver superior abatement performance at comparable and often lower costs than renewable technologies.



1. Gas Energy Australia

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.

At present, LPG is the main alternative gaseous fuel used in Australia and it makes a significant contribution to meeting the nation's energy needs in two ways:

- a. As a stationary (i.e. non-transport) energy source, LPG is used by households and businesses for a variety of uses.
 - 1) LPG has provided Australians with access to gas for cooking, space and hot water heating since the 1950s and has also provided a pathway for consumer acceptance and take-up of natural gas. Today, LPG is the gaseous fuel used by around one million households for these purposes. LPG is also used by around seven million households for recreational activities (BBQs and outdoor heating).
 - 2) LPG also supplies around 100,000 commercial and industrial enterprises and is used in a variety of industrial processes, including power generation and heating.
 - 3) LPG's use is most prevalent in areas not connected to the natural gas network, especially regional Australia.
- b. As an automotive fuel, LPG autogas is Australia's most significant alternative transport fuel accounting for the bulk of the sector's share of the overall transport fuel market. It fuels almost 500,000 vehicles, the majority being owned by private motorists. LPG autogas is the predominant fuel used by the taxi industry and is heavily used by fleet and trade vehicles, including light commercial vehicles.

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 both domestic stationary energy and transport applications, particularly power generation, heavy trucks and buses.

2. Issues

Gas Energy Australia welcomes recent decisions by the Government to ensure its policies to address climate change, such as the Emissions Reduction Fund (ERF), are not solely focused on renewable energy (e.g., solar, wind and geothermal) or so called renewable energy (e.g., electric heat pumps). Gas Energy Australia considers this represents a considerable advance on the many federal, state and territory government policies and programs implemented over recent years focused solely on renewable energy and so called 'renewable' energy. These policies and programs have often excluded the lower cost abatement that could be achieved through switching to gaseous fuels to the disadvantage of energy consumers and taxpayers.

An example of a climate change program which eschews the virtues of technology neutrality is the Small-scale Renewable Energy Scheme (SRES) which continues to provide financial assistance to households to buy solar and

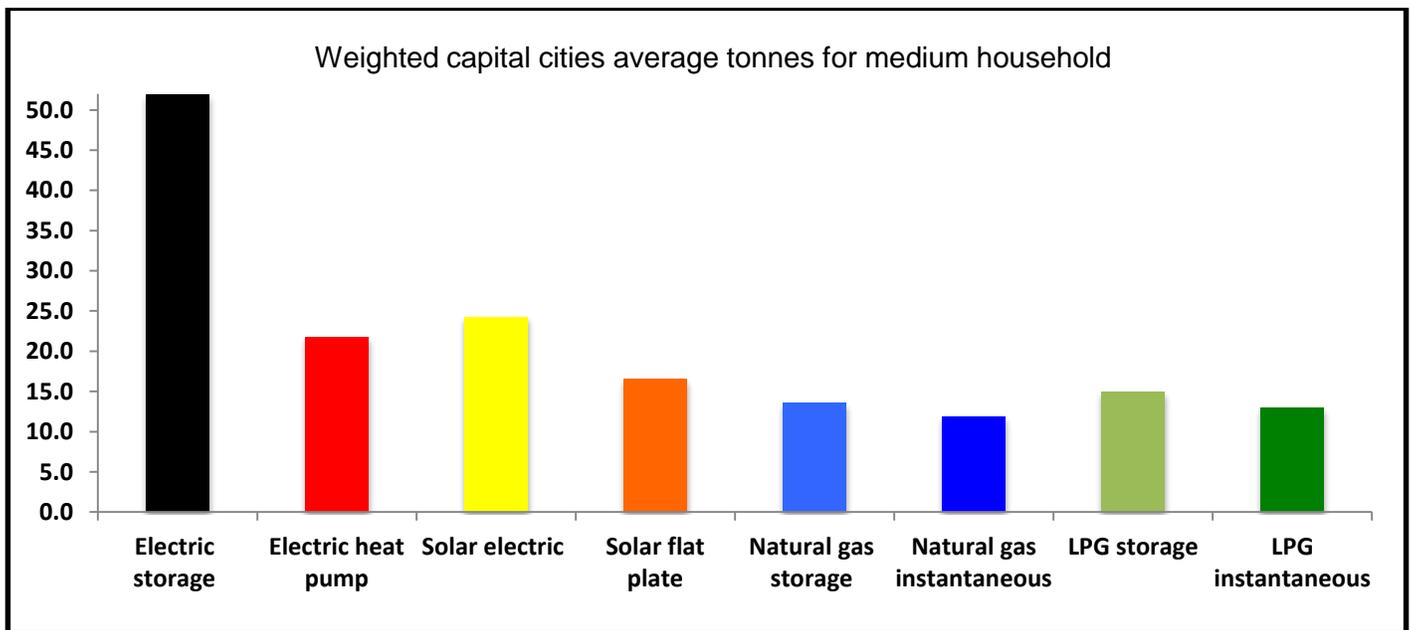


electric heat pump household water heaters but not natural gas or LPG water heaters. The folly of this policy is highlighted by research undertaken by pitt&sherry in 2014 ¹ on behalf of Gas Energy Australia.

Figure 1 below summarises the comparative (15 year) lifetime greenhouse gas emissions performance, including embodied emissions, of different water heater types used by medium size households in Australia’s eight capital cities. These estimates comprise direct combustion emissions (Scope 1 emissions) in the case of gas, and electricity generation emissions (Scope 2 emissions) in the case of electricity. The estimates exclude other emissions such as those associated with transmission (Scope 3 emissions) to avoid the risk of double counting emissions and ensure consistency with Australia’s National Greenhouse and Energy Reporting (NGER) Scheme emissions accounting framework.

Most significantly, Figure 1 shows that the lifetime GHG emissions from natural gas and LPG water heaters are less than those from solar (evacuated tube and flat plate electric boosted) and electric heat pump water heaters as well as much less than those from electric storage water heaters.

Figure 1: Lifetime GHG emissions performance comparison of water heaters



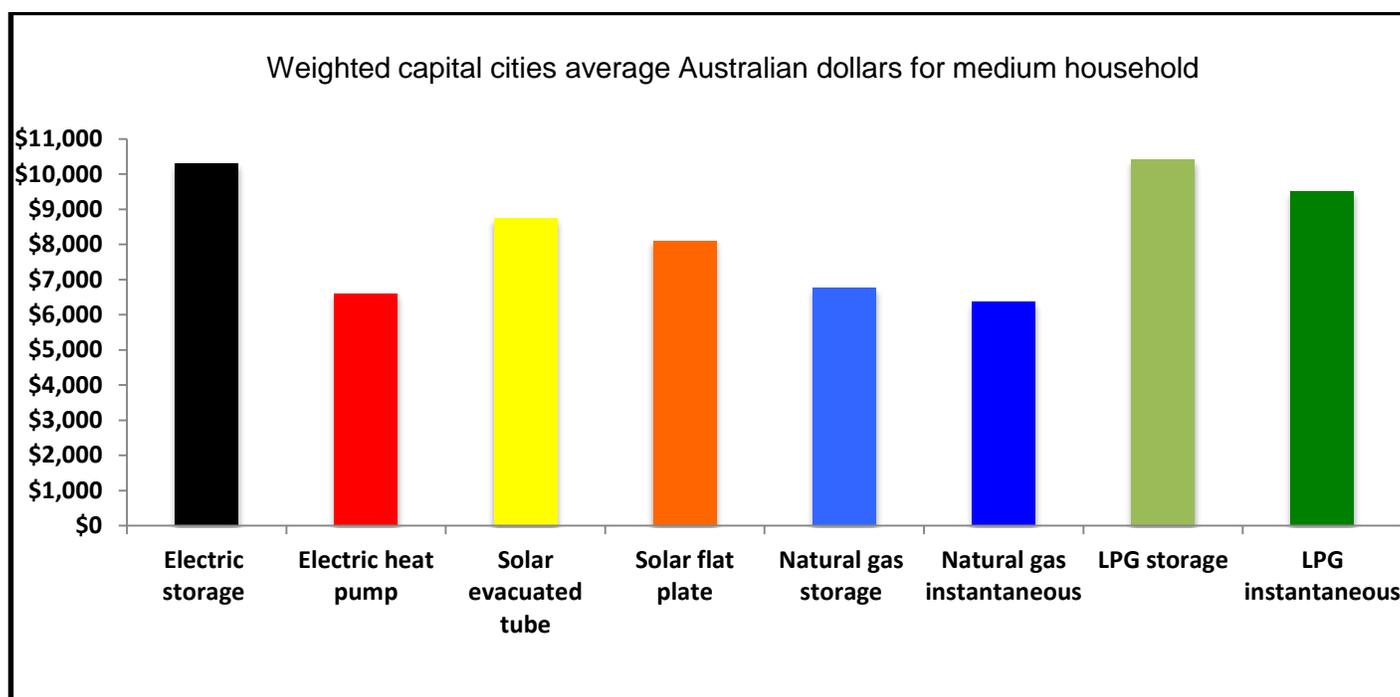
Source: pitt&sherry (2014) and the ABS.

¹ pitt&sherry, 2014, Greenhouse gas emissions performance of various types of residential water heaters, and emissions abatement opportunities. pitt&sherry is a specialist consultancy providing strategic services in the areas of energy, transport, the environment and greenhouse strategy.



Figure 2 below summarises the comparative (15 year) lifetime net present cost of different water heater types used by medium size households in Australia’s eight capital cities. These estimates comprise the purchase and installation cost of each type of water heater and each type’s net present operating cost over its life. These estimates exclude the subsidy afforded to solar and electric heat pump water heaters by the Small-scale Technology Certificates (STCs) provided under the SRES.

Figure 2: Lifetime net present cost comparison of water heaters



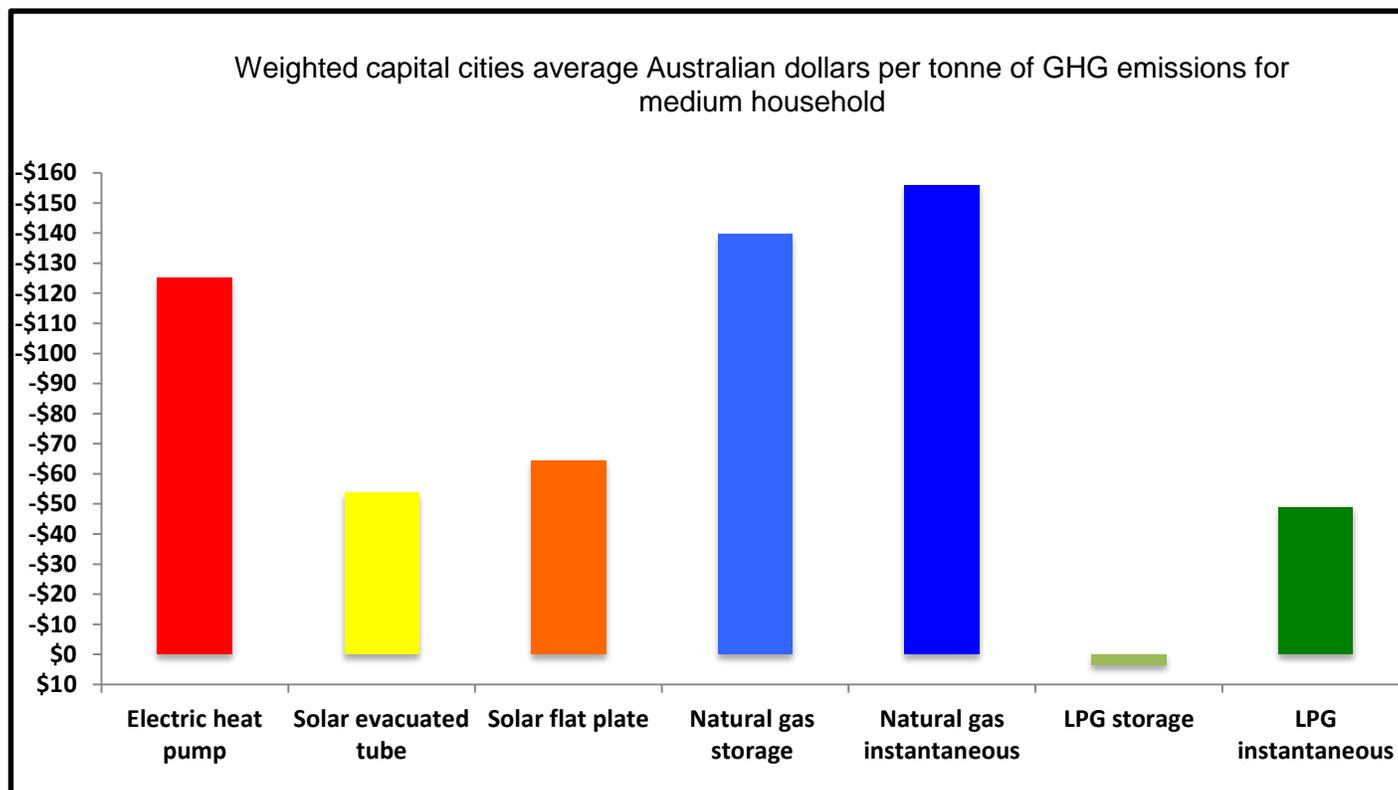
Source: pitt&sherry (2014) and the ABS.

Figure 3 below, which draws on the results of Figures 1 and 2, shows the comparative (15 year) lifetime cost of abatement resulting when continuous tariff electric storage water heaters, used by medium size households in Australia’s eight capital cities, are replaced by low emission water heaters. Electric storage water heaters are used as the cost of abatement benchmark because they are the water heaters that produce the most GHG emissions yet are still used by about half of all Australian households.

Figure 3 demonstrates that non-renewable low emission gas technologies can deliver GHG abatement at a comparable and often lower cost compared to renewable technologies.



Figure 3: Lifetime cost of abatement comparison of water heaters



Source: pitt&sherry (2014) and the ABS.

3. Conclusions

In Australia on average, lifetime GHG emissions from natural gas and LPG water heaters are less than those from solar and electric heat pump water heaters. Moreover, non-renewable low emission gas technologies can deliver superior abatement performance compared to renewable technologies at a comparable and often lower cost.

Consequently, there is no justification for the many federal, state and territory government climate change policies and programs implemented over recent years focused solely on renewable energy and so called 'renewable' energy. These policies and programs have often excluded the lower cost abatement that could be achieved through switching to gaseous fuels to the disadvantage of energy consumers and taxpayers.

4. Recommendations

Gas Energy Australia recommends the Senate Economics Legislation Committee note that:

- a. Gas Energy Australia supports the repeal of the *Australian Renewable Energy Agency Act 2011* and the closure of ARENA;



- b. non-renewable low emission gas technologies can deliver better abatement performance than renewable technologies at a comparable and often lower cost;
- c. there is no justification for government emissions reduction policies and programs that arbitrarily exclude non-renewable low emission gas technologies to the detriment of energy consumers and taxpayers; and
- d. gaseous fuels are already a significant part of Australia's energy mix and have the potential to contribute further to reducing GHG emissions, as well as increasing energy security, improving air quality and leveraging Australian manufacturing industries' expertise and capabilities in developing new and innovative gas technologies.

For your consideration.

Yours sincerely

Mike Carmody
Director and Chief Executive Officer

Distribution: Senate Economics Legislation Committee

For Information: Members – Gas Energy Australia Stationary Energy LPG Task Force
Members – Gas Energy Australia Advisory Council Working Group – Policy – EWP
Subcommittee
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