23 February 2015

ENGINEERS
AUSTRALIA
Tasmania Division

Energy Strategy Submissions
Department of State Growth
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– BY EMAIL –

Dear Sir/Madam

Re: Engineers Australia Submission to Tasmania Energy Strategy Draft Paper

Thank you for the opportunity to comment on the draft Tasmanian Energy Strategy – Restoring Tasmania's Energy Advantage.
Engineers Australia would like to commend the Tasmanian Government for developing a 20-Year energy strategy. In its *Energy Security for Australia* Report (Dec 2014), Engineers Australia has urged governments, policy makers and energy consumers to rethink the way we view and discuss Australia's energy security and to consider medium and long term timeframes in their strategies.

The report states that Australia needs a much broader definition for energy security than that which is currently adopted. Rather than focussing on the economic harm arising from a loss of supply, a comprehensive understanding of energy security that explicitly recognises both the sides of the demand-supply relationship is required. Any strategy should also recognise that energy insecurities arise across the four key domains of 1) national economic and national security, 2) food and water security, 3) sustainable development and environmental security, and 4) social stability and energy stress.

The Report makes a series of recommendations aimed at implementing a comprehensive approach to energy security policy through the following initiatives:

- Adopting a comprehensive energy security definition relevant to Australia
- Treating energy security as a "wicked problem"
- Broadening the understanding of threats to energy security
- Reducing energy consumption
- Securing the energy wealth for future Australians
- Integrating energy security and defence policy
- Integrating energy security and foreign diplomacy
- Addressing liquid fuel insecurity
- Addressing energy poverty
- Moving beyond energy infrastructure protection
- Engaging the community

The Tasmanian Energy Strategy goes somewhat to addressing many of points made in the *Energy Security for Australia* report.

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The Strategy groups its actions into three Strategic Actions:

1. Making energy work for people
2. Reducing the cost of delivering energy; and
3. Positioning Tasmania for the future.

1. Making energy work for people
Engineers Australia sees that the first strategic action – Making energy work for people – recognises social stability and energy stress as a key domain that affects energy security. Energy poverty can be defined as households spending more than ten per cent of their after-tax income on energy. While many of the identified initiatives look to reduce energy poverty in terms of reducing the cost of electricity and to help increase consumer awareness of their energy use, they should also consider those who are energy stressed as these people often fall outside traditional income support and concessional regimes. Initiatives should minimise the creation of other energy insecurities such as under-investment in electricity infrastructure or inhibiting the development of new distributed and multi-directional flow energy systems

We also believe that engaging the community to increase energy literacy is an important aspect of this Strategic Action. We agree initiatives that assist customers to understand their energy usage will assist to increase efficiencies which will help reduce energy poverty.

Initiatives that review transport energy use are also endorsed by Engineers Australia. One of the key initiatives identified in Engineers Australia's energy security report was addressing liquid fuel insecurities. Approximately 90 per cent of Australia's transport fuel is imported. With very limited storage capacity within Tasmania, there are very low levels of fuel-stock that can be accessed in the event of issues in supply.

2. Reducing the cost of delivering energy
As mentioned previously, increasing the energy literacy of users is a critical component to reducing energy stress and poverty. It can also assist in reducing the cost of energy delivery as transmission and distribution infrastructure can be planned for lower levels of maximum load. Engineers Australia encourages the investigation of initiatives that combine cost reflective tariffs, the uptake of sophisticated metering and consumer education.

In terms of initiatives to ensure State-owned electricity businesses are efficient, this is prudent business management and is encouraged. However, these should not come at the expense of ongoing strategic investment or increased administration that will impact on future energy security.

In addition to the actions identified under this strategic area, we would encourage the government to lead discussions in energy regulation reform, as this at both state and federal levels has contributed to price escalation.

3. Positioning Tasmania for the future
It is recognised that Tasmania has the potential to use excess generation capacity to both increase economic activity within the State as well as take advantage of the opportunity to sell low-carbon emission energy to other states within Australia. These both rely heavily on the close monitoring of demand and the strong leadership of the Government to influence and promote the transition to a low-carbon economy.

Tasmania's reliance on liquid fuels can be reduced through the development of biofuel and electric transportation options. As Tasmania does not currently have a secure stock of liquid fuels this will be important going forward to maintain our energy security, especially with expected increased activity in the agriculture, aquaculture and food processing industries.

Engineers Australia would also like to see a focus on the adoption of other innovations that will decrease energy consumption, and reduce energy poverty, more broadly.

As described in Engineers Australia's *Energy security for Australia* report, energy security should be treated as a wicked problem. This is especially true in Tasmania where there is conflict between exporting energy, reducing energy poverty and stress for Tasmanians, retaining existing businesses and attracting new load. As such, significant collaboration is required yet this process needs to be managed as to ensure progress rather than extended debate resulting in stagnation. In its previous submission, Engineers Australia referred to the interdependence of the Energy Strategy with other policies, such as population, industry, infrastructure and transport, for example. We again strongly recommend that these interdependencies are considered as there is little recognition of this in the strategy.

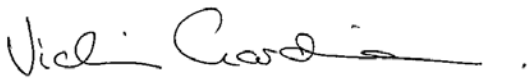
To summarise, Engineers Australia applauds the Government in its development of a long term Energy Strategy for Tasmania. Many of the actions outlined in the Strategy align with recommendations made in the *Energy security for Australia* report, which are listed in the Appendix. The full report can be found at http://bit.ly/1AAh3dS.

Engineers Australia hopes that the continued development of this Strategy will include clearly defined goals, with the acknowledgement that energy security is a wicked problem. We also recognise the need for flexibility in the strategy in order to account for changes in the supply and demand relationship, as well as changes across the four key domains of national economic and national security; food and water security; sustainable development and environmental security; and social stability and energy stress.

Should you have any questions about this submission, or Engineers Australia's position more broadly, please do not hesitate to contact me directly, either by telephone on 03 6218 1902 (mob: 0409 955 720), or by email on VGardiner@engineersaustralia.org.au.

Thank you for consideration of this submission.

Yours faithfully



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Appendix 1: *Energy security for Australia* Report recommendations

A Yates, N Greet; *Energy Security for Australia: Crafting a comprehensive energy security policy*; 2015, Engineers Australia, http://newsroom.engineersaustralia.org.au/sites/default/files/resources/engineers_australia_energy_security_report.compressed.pdf

1. Australian governments and energy security stakeholders should adopt the following comprehensive definition of energy security: Energy security is the adequate, reliable and competitive supply of sustainable, low-carbon energy and energy services at global, national and local scales; across short-, medium- and long-term timeframes; and in the context of minimising consumption and demand, maximising energy intensity, and balancing the trade-offs and complementaries between energy and other security referents of value, notably the four key domains of 1) national economic and national security, 2) food and water security, 3) sustainable development and environmental security, and 4) social stability and energy stress.

2. Australian policy makers in both the energy sector and other sectors that affect energy supply or demand should adopt the definition and apply the set of Energy Security Principles which reflect the intent of the comprehensive definition of energy security.

3. Australiana energy security policy makers should adopt a more collaborative approach to policy making as this I the most effective method to manage such complex and uncertain issues.

4. Key energy security—related government strategies and information gathering processes, such as National Energy Security Assessment, Energy White Paper, Defence White Paper and environmental strategies, should adopt a collaborative approach to solving the ‘wicked problem’ of energy security.

5. Australian energy security policy makers should use in their analyses a comprehensive list of risks which reflects the varied perspectives of energy stakeholders who each view the threats, likelihoods, consequences and solutions relating to energy security differently due to their unique domains of interest.

6. Australian energy security policy makers should ensure that their policy prescriptions do not unnecessarily increase vulnerabilities, threats and risks in areas directly outside their policy interest in both the energy sector and other sectors that affect supply or demand, This approach necessitates a coordinated ‘whole of government’ response.

7. Australian energy security policy makers should give far greater emphasis to reducing energy consumption through energy efficiencies, reducing energy intensity and decoupling economic growth with energy use.

8. Australian energy security policy makers should argue for an energy sovereign wealth fund to improve intergenerational national economic security, and enforce fiscal discipline so that income from non-renewable resources is spent on productive human an infrastructure activities.

9. The upcoming Defence White Paper should reflect a more comprehensive understanding of energy security issues including:

a. Greater attention to the protection of Australian maritime exports in the context of tensions in Asia and the desire by energy importing countries to ensure that Australian supplies are reliable
b. The adoption of energy efficiency and smart energy solutions, along with accelerating the Defence Energy Integration Framework by the Australian Defence Force to reduce energy security vulnerabilities.

10. The Australian Government and other Australian stakeholders should enhance their energy diplomacy efforts through greater incorporation of energy security issues into regional interactions including multilateral forums. This could include joint government, private sector and professional association missions concentrating on advancing energy security.

11. The Australian Government in partnership with the petroleum industry, users and other stakeholders should develop a liquid fuel strategy that includes the following components:
    a. Rigorously and publically investigating what are acceptable levels of emergency self-sufficiency in oil supplies in the context of the international agreement to maintain supplies of at least 90 days, and implementing the most effective approach to achieving these levels.
    b. Ensuring through innovation the sustainability of the domestic refining, storage and distribution industry so that it can supply essential civil and military needs in the event of crises
    c. Commissioning a detailed analysis of the costs, benefits and timelines for the redirection of currently exported Australian crude oil to be refined domestically in times of crises
    d. Accelerating activities to substitute low-carbon fuels for fossil liquid fuels.

12. As energy poverty can be a driver of insecurity that has strategic and social stability implications:
    a. Australian security policy makers, and Australian government and private sector aid development organisations should make reducing energy poverty in Australia's region of interest a priority, and this should be done in conjunction with Australian industry to engage them in producing fit-for-purpose energy solutions for the region
    b. Australian governments, including regulators and other stakeholders, should explicitly seek to minimise energy poverty and reduce energy stress while minimising the generation of other energy insecurities such as under-investment in electricity infrastructure or inhibiting of the development of distributed and multi-directional flow energy systems.

13. Australian energy security policy should incorporate energy sector and energy user resilience alongside infrastructure protection in energy security and resilience policies and strategies.

14. All Australian jurisdictions should incorporate the building of improved resilient energy systems as port of disaster risk reduction programs and post-disaster "build back better" programs.

15. The Australian Government, supported by peak energy bodies, academia and industry, should develop a strategic narrative for Australia’s energy security, and through the active promotion of storylines in the narrative, advance the development of energy literacy.