



9 September 2016

Mr Scott Hamilton
Executive Director, Renewable Energy
Victorian Department of Environment, Land, Water and Planning

via email: renewable.energy@delwp.vic.gov.au

Victorian Renewable Energy Auction Scheme – Consultation Paper

Dear Mr Hamilton

The Energy Networks Association (ENA) welcomes the opportunity to make a submission to the Victorian Renewable Energy Action Scheme in response to its *Consultation Paper* published in August 2016.

The ENA is the national industry association representing the businesses operating Australia's electricity transmission and distribution and gas distribution networks. Member businesses provide energy to almost every household and business in Australia.

The ENA supports the joint submission made by Victorian electricity distribution businesses¹, that outlines their position on the Victorian Energy Auction Scheme, especially in relation to cost recovery and scheme administration. If the scheme is implemented in its current form, the ENA considers it would be more equitable if the VREAS was funded directly from the Victorian State Budget rather than through a surcharge to the electricity tariff, with potential regressive impact. The government agency should be the scheme administrator, rather than electricity distribution businesses.

This ENA submission is provided recognising the need for enhanced integration of national carbon and energy policy, as recently agreed by the COAG Energy Council. The ENA recognises the need for greater consistency between State and Federal policies related to carbon and energy policy, including a coherent and coordinated technology neutral approach to achieving national carbon abatement objectives.

1 Carbon Abatement Policy Options

The Victorian Government should further consider opportunities to implement outcome-focused assistance measures which are technology neutral and directed towards achieving carbon abatement efficiently with minimal economic distortion. The ENA has recently released analysis supporting the publication, *Enabling Australia's Cleaner Energy Transition*² which outlines seven steps to improved national carbon policy.

¹ Victorian electricity distribution businesses are: AusNet Services, CitiPower, PowerCor Australia, Jemena, United Energy.

² Energy Networks Association (2016), *Enabling Australia's Cleaner Energy Transition*, available from www.ena.asn.au

This was supported by analysis completed by Jacobs³ which examined a variety of policy options to achieve Australia’s current abatement target (i.e. emission reductions of 26 to 28% below 2005 levels by 2030) or an extended target of 45%⁴. The policy scenarios examined included:

- *Business as usual* – where the suite of current government policies continue and major policy settings are adjusted to reach specific abatement targets.
- *Technology neutral* – where the current suite of policies is adjusted to become technology neutral and elements of a ‘baseline and credit’ scheme are introduced.
- *Carbon price mechanism* – where all policies are removed and replaced by a carbon price on all emissions.

The results from the analysis demonstrate that the current 2030 target could be met in any of the three scenarios, with the main difference being the economic efficiency and outcome for customer bills.

Household bills are affected by changes to the wholesale price of electricity or gas price and/or by the additional impost from trading, where it can occur. The lowest household bills in the technology neutral approach could be \$216 per year lower on average over the period from 2020 to 2030, compared to the business as usual settings. There was also an overall economic savings from adopting either a technology neutral or a carbon price mechanisms policy setting of between \$0.9 and \$1.5 billion over the decade.

Significantly, the technology neutral scenario saw significant increase in the level of renewable generation based on its economic merit in achieving carbon abatement. The 2020 LRET target was reached and the level of renewable generation continued to grow in each scenario out to 2030, as shown in Figure 1.

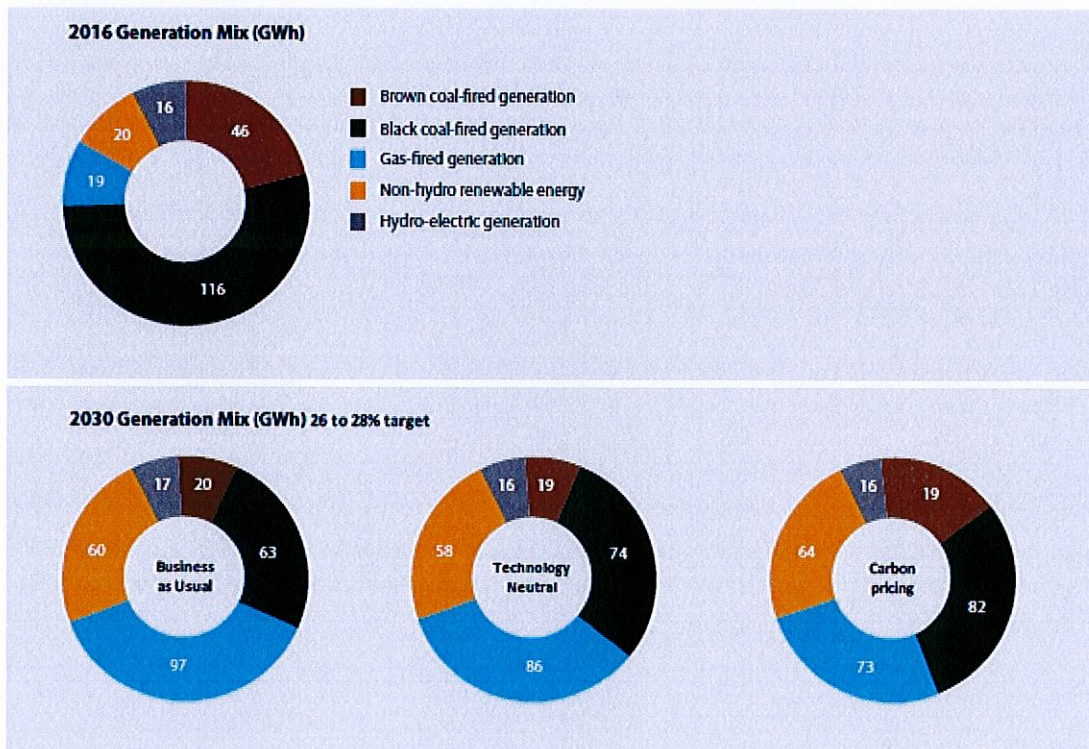


Figure 1: Impact of policy mechanism on NEM generation mix in 2030.

³ Jacobs (2016), *Australia’s Climate Policy Options – Modelling of Alternate Policy Scenarios*, available from www.ena.asn.au

⁴The outcomes of the 45% target scenario are reported, indicating similar results – ie lowest residential bill under a technology neutral approach.

Based on the analysis, ENA recommended seven steps to improved carbon policy:

1. Pursue an enduring, stable and nationally integrated carbon policy framework based on consensus.
2. Introduce a 'baseline and credit' scheme leveraging the current legislative architecture of the Emissions Reduction Fund Safeguards Mechanism.
3. Over time, consider options to increase economic efficiency by moving to a carbon price mechanism, with appropriate financial transfers and household support and without risking subsequent policy 'churn'.
4. If governments maintain direct incentive programs, transition Commonwealth and State programs to focus on least cost abatement outcomes, which are scale neutral and technology neutral.
5. Continue to review Australia's abatement targets (in the form of Intended Nationally Determined Contributions or INDCs), within the 5 yearly cycle proposed following the COP21 Agreement in Paris.
6. Incorporate an explicit, independent assessment of national energy market implications when developing jurisdiction initiatives on carbon and renewables policy.
7. Ongoing support for research, development and demonstration on a diverse range of low emission technologies.

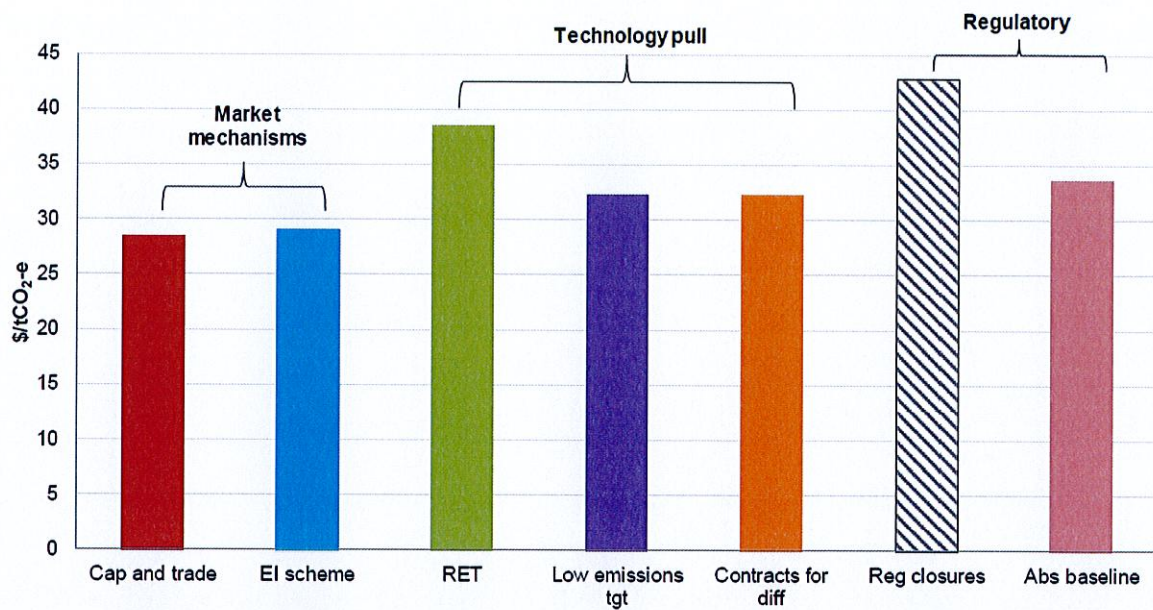
The Victorian Government Consultation Paper included a focus on the contribution of a new renewable energy target to create jobs, stimulate economic development and reduce greenhouse gas emissions. If the objective is to achieve greenhouse gas reductions, then the policy framework should have a clear focus on carbon abatement outcomes achieved at least cost. The analysis published by ENA demonstrates that the lowest impact to consumers is by adopting a technology neutral approach. The ENA also supports a nationally integrated and consistent approach to carbon abatement based on bipartisan support and consensus between the Federal and State Governments.

The ENA also notes recent analysis for the Queensland Productivity Commission conducted by ACIL Allen, which showed that the proposed Queensland Renewable Energy Target - QRET (using large scale feed-in tariffs) would require a subsidy of about \$10.8 billion (real) over the period to 2030.⁵

These analyses indicate that the introduction of a renewable energy target does not increase the *efficiency* or *effectiveness* of the growth in renewables. There is material evidence that a legislated, technology specific renewable energy target would perform more poorly than technology neutral "indirect measures" against the Government's stated objectives. The Climate Change Authority⁶ also found that technology pull mechanisms, such as a renewable energy target are a more costly approach to carbon abatement compared to market mechanisms such as a cap and trade or emissions intensity schemes (see Figure 2).

⁵ See the ENA Submission to the Queensland Productivity Commission (QPC), *Electricity Pricing in Queensland Draft Report* available at: http://www.qpc.qld.gov.au/files/uploads/gravity_forms/12-4457891b4ac8d0960895c78212ee1497/2016/03/Draft-Report-submission-ENA-FINAL.pdf

⁶ Climate Change Authority (2016), *Policy options for Australia's electricity sector – special review research report*, pg10



Note: See Table 3 in Chapter 3 for a summary of the policies. 'EI scheme' = emissions intensity scheme; 'RET' = Renewable energy target; 'Low emissions tgt' = Low emissions target; 'Contracts for diff' = contracts for difference; 'Reg closures' = regulated closures; 'Abs baseline' = absolute baselines. Average direct cost of abatement over 2020–2050 using a seven per cent discount rate for resource costs. Direct costs are the additional costs arising from the policy in the electricity sector. Emissions not discounted. Figures account for the reduction in welfare from a fall in electricity demand compared to the reference case resulting from increased retail electricity prices. The regulated closures policy breaches the common cumulative emissions budget by about 200 Mt CO₂-e or 15 per cent, so the cost of abatement here is not directly comparable with other policies. See Appendix C.1. All dollar figures in this report are in 2014 Australian dollars unless otherwise specified.

Source: Climate Change Authority based on Jacobs 2016c.

Figure 2: Average cost of abatement by policy settings (2 degrees, 2020 to 2050)(CCA, 2016).

If, however, the public policy objectives intended by the target are broader than carbon abatement - such as Victorian renewable energy industry development (through new jobs) and supply chain participation (through economic development) - then it would be desirable for the Government to:

- be explicit about the intended objectives unrelated to carbon abatement;
- assess the impacts of technology focused policies on other energy technologies (eg. Victoria's manufacturing base for gas appliances); and
- transparently evaluate the incremental costs and benefits of a renewable energy target rather than a carbon abatement policy to confirm they are in the public interest.

ENA supports the development of policy initiatives that achieve the effective monitoring and abatement of greenhouse gas emissions to meet Australia's current and future international obligations. The ENA supports climate policy options that focus on outcomes - achieving Australia's abatement targets at least cost and in a technology neutral manner. Frameworks for abatement should facilitate national abatement outcomes in an economically efficient manner across all relevant sectors of the economy. They should seek to minimise economic distortions and, in the case of the stationary energy sector, emissions abatement policy must consider, and be appropriately integrated with, energy policy objectives and market frameworks.

2 Impact on the electricity system

The ENA considers that the potential implications of additional policy measures on the operation, safety, security and reliability of the system should be carefully evaluated. Energy networks are committed to enabling a low carbon generation future which is likely to feature increasing levels of renewable generation at large scale and small scale, in combination with other distributed resources.

Nevertheless, the design of policy measures and their integration with existing State and national instruments, can have material implications for the efficient operation of the electricity system. The efficiency of the NEM design may be impacted in the following areas:

- Reducing levels of synchronous generation and increasing levels of intermittent generation reduces the ability of network service providers to manage electricity frequency and voltage. Frequency and voltage of electricity directly impacts the performance of customer equipment.
- Re-establishing system security (in terms of safety, quality and reliability) following a major outage may be made more difficult by policies which reduce the ability of network service providers to manage the network or system operations;
- System constraints may be created by inefficient location of new generation sources (such as large scale solar or wind farms); and
- A rapid and significant introduction of renewable generation may require reevaluation of existing wholesale market frameworks, challenging the commercial viability and contractual frameworks by which capacity and inertia are secured in the NEM, as short-run costs and bid prices impact on availability of generation and ancillary services.

These implications require assessment in advance and will require new system operation and network management capabilities to be developed in anticipation of, rather than after, emerging issues. Energy networks, together with the Australian Energy Market Commission and Australian Energy Market Operator have been assessing the potential implications of changing generation fleets on the National Electricity Market. ENA and CSIRO are also partnering in a long-term research program to develop the Electricity Network Transformation Roadmap. The Roadmap is designed to identify the preferred transition which the electricity network industry must make in the next decade, to support better customer outcomes. It is assessing the technical impact of changes in sources of electricity generation on electricity reliability and performance for all customers. To highlight two examples:

- The loss of synchronous generation will require other solutions to manage loss of inertia, and provide dispatchable, low carbon energy sources to balance the power supply in real time. There are potentially multiple solutions to these issues through a range of innovative options being developed. The solutions to intermittent generation could lie in concentrated solar thermal technology, battery storage or other options that remove the carbon footprint of conventional generation, like renewable biogas, carbon capture and storage, or storing energy in gas networks through Power to Gas technology.
- Safety and reliability impacts from standards of connection of residential solar PV, batteries and other new technologies to the electricity network should be considered when pursuing policies that may result in sudden uptake of these technologies.

Consistent with the recognition of the COAG Energy Council of the need to better integrate carbon and energy policy, a Victorian policy explicitly targeting an increase in the level of renewable generation connected to the electricity network should be accompanied by adequate supporting power system analysis and appropriate measures to address technical implications in the interest of all customers, across the NEM, not just Victoria.

Should the Victorian government propose to develop a 40% renewable energy target by 2025, ENA recommends that it be accompanied by a 'readiness assessment' of the electricity system to accommodate the attendant loss of synchronous generation, informed by recent work undertaken in South Australia and other jurisdictions. The ENA recognises the need for greater consistency between State and Federal policies related to carbon and energy policy, including a coherent and coordinated technology neutral approach to achieving national carbon abatement objectives

Thank you for the opportunity to provide this submission.

The ENA would be happy to further assist in supporting your consideration of these issues. Please do not hesitate to contact us via Dr Dennis Van Puyvelde at (02) 6272 1548 or dvanpuyvelde@ena.asn.au.

Yours sincerely,



John Bradley
Chief Executive Officer