



Ms Shayleen Thompson  
Acting Chief Executive Officer  
Climate Change Authority  
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Dear Ms Thompson,

**AGL Energy Response to the Climate Change Authority Special Review**

AGL Energy (**AGL**) welcomes the opportunity to provide comment on *Australia's climate policy options* as part of the Climate Change Authority's (CCA) Special Review into Australia's Climate Action (the Review).

As a leading integrated energy retailer AGL is well placed to provide comment on the issues presented. AGL operates across the supply chain and has investments in coal-fired, gas-fired, renewable and embedded electricity generation, upstream gas production and provides energy solutions to over 3 million customers. The diversity of this portfolio has allowed AGL to develop a detailed understanding of the risks and opportunities presented by energy and climate policy. AGL economists have published a range of peer reviewed research on impacts associated with energy and climate policy.

Meeting Australia's emission reduction commitments consistent with a '2 degree' future will require a transition over several decades. Policy should reflect the transitional nature of the problem and specifically for the energy sector recognise the essential service nature of electricity.

AGL has recently committed to the decarbonisation of its electricity generation fleet by 2050 providing certainty for our customers, stakeholders and the communities within which we operate. We recognise that the electricity generation sector plays a material role in the process of decarbonisation, and as such is an important participant and contributor to this overarching objective.

We have provided commentary to the specific questions posed by the Authority in Appendix 1.

Should you wish to discuss any aspect of this submission, please contact Cameron Reid on [creid@agl.com.au](mailto:creid@agl.com.au) or 03 8633 7201.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Tim Nelson'.

Tim Nelson  
Head of Economic Policy & Sustainability, AGL Energy

## Appendix One

### Questions

- Q.1. The Authority proposes assessing policies primarily on their cost effectiveness, environmental effectiveness and equity. Are these principles appropriate? Are there any other principles that should be applied, and if so, why?

AGL supports the use of these principles in the assessment of climate policy options. For the electricity generation sector, with long investment horizons and large upfront capital costs, well telegraphed and consistent policy that provides reasonable insight into the investment environment over the medium term is a pre requisite to minimise the impact of emission reductions on energy consumers.

Currently, fossil fuels provide 88% of Australia's electricity generation. Any implementation of policy (or suite of policies) intended to effect decarbonisation of the generation sector will be a multi-decadal process and require commensurate levels of policy certainty. Given the levels of investment across the energy supply chain, persistent, gradual and structural modernisation and reduction in carbon intensity of the generation sector will be best served by policy (market based or regulatory) that recognises these considerations and seeks to balance action required against the societal cost. As such, when assessing the efficiency and efficacy of policy scenario combinations, the consistency of emission reduction over the modelling period should be taken into account. Policies that provide for a consistent or smooth trajectory are likely viewed as more stable than alternatives. Policy should also be guided by the objective of simplicity with community acceptance of the policy mechanism an important consideration.

### Questions

- Q.2. What lessons can be learned from Australia and overseas on the effectiveness of mandatory carbon pricing, and its interaction with other climate policies?
- Q.3. How does mandatory carbon pricing perform against the principles of cost effectiveness, environmental effectiveness and equity? Which type of pricing scheme is likely to be more effective, and why?

A long term, national carbon budget for Australia that extends to 2050 is required to underpin climate policy. Such a budget would allow businesses some insight into the suitability of investments with long lifespans.

A budget of emissions between today and 2050 would need to be derived from a global carbon budget. This global climate objective is able to be converted with a reasonable degree of accuracy to the total volume of global emissions that can occur in order to have a reasonably high probability of achieving this objective. Certainty of this budget will facilitate effective assessment of the long term cost of policy options and enable consideration of the appropriate mix of policy required to achieve any budget within required timeframes.

This underlying scarcity or carbon constraint must be complemented by effective acceptance of the policies across society and the political spectrum. This enables the certainty required to facilitate long term investment in the most efficient means to reduce emissions to required levels within the necessary timeframe.

AGL supports the use of both regulatory and market-based policy mechanisms to deliver the required emission reductions. Importantly, a range of policies are likely to be needed. Governments should consider targeted policies for key industries such as electricity generation, specifically:

- emissions standards for all new power stations;
- regulation which drives the progressive closure of older, emissions-intensive power stations or retrofitting with CCS technology; and
- continued incentives for renewable energy with increased scope to include all zero and near-zero emission energy sources.

Such policies would facilitate a gradual but meaningful reduction in electricity sector emissions, which comprise around one-third of the Australian total.

Carbon pricing and its interaction with energy market design and energy policy more broadly also must be considered. This is assessed in the paper *Australian Climate Change Policy: Where to from here?* (attached to this submission).

## Questions

- Q.4. What lessons can be learned from Australia and overseas on the effectiveness of voluntary carbon pricing, and its interaction with other climate policies?
- Q.5. How does voluntary carbon pricing perform against the principles of cost effectiveness, environmental effectiveness and equity?

AGL supports the use of voluntary carbon pricing to the extent it is complementary to other carbon policies designed to facilitate the achievement of the appropriate carbon budget. They can facilitate efficient emission reductions in areas that may not be subject to or covered by more broad based policies and schemes.

Voluntary carbon reduction products and services (such as GreenPower) can also allow customers to more directly invest in emission abatement projects if they wish to do so.

## Questions

- Q.6. What lessons can be learned from Australia and overseas on the effectiveness of renewable energy targets and energy efficiency targets, and their interaction with other climate policies?
- Q.7. How do renewable energy targets and energy efficiency targets perform against the principles of cost effectiveness, environmental effectiveness and equity?
- Q.8. What lessons can be learned from Australia and overseas on the effectiveness of regulation, and its interaction with other climate policies?
- Q.9. How could various types of regulation perform against the principles of cost effectiveness, environmental effectiveness and equity?

AGL has articulated the challenges associated with the interaction of renewable energy and renewable energy targets and Australia's energy only market extensively over the past three years.

The electricity supply system is required to undergo a transformation to facilitate modernisation and decarbonisation. Revenue streams to be received over the life of a new project are required to be at levels sufficient to justify the capital expenditure. In the current environment where demand is relatively stagnant and supply continues to be added to the system through policy intervention, investment conditions will remain challenging for investment in new generation (renewable or thermal).

AGL has noted that an orderly withdrawal of existing thermal (aged and emission intensive) plant is likely to be required to facilitate significant new investment in renewable energy. AGL notes a range of mechanisms have been raised as options including (but not limited to) regulatory mechanisms, market based mechanisms, or government funding.

Without policy measures that address the issues of oversupply and barriers to exit for existing generation (regardless of their form) new investment will remain more challenging than it otherwise would be.

It is a core policy challenge best addressed by organisations such as the Authority with the mandate and skill sets to look beyond immediate and short term considerations in the long term context of emission reductions. Component parts of the electricity industry cannot be assessed, nor can their issues be solved, in

isolation. A significant challenge currently facing the operation of the NEM in particular is the application of multiple policies to limit greenhouse gas emissions and promote the deployment of renewable energy. While these policies have implications for the sustainable operation of energy markets, they generally fall outside of the regulatory and governance frameworks for the development and operation of these markets. AGL considers that energy and climate change policy objectives are inextricably linked, and that energy market design needs to give due consideration of not only energy reliability and affordability, but also to relevant environmental objectives. Integrated policies are required to ensure that these objectives can be jointly pursued over time. The decarbonisation and modernisation of the electricity sector will span several decades, and a long-term vision and trajectory for this transition is essential.

In addition to the policies required to facilitate a transition, complementary efforts will likely be required to facilitate an evolution of the energy market to better provide a basis for investment to meet the needs of the electricity supply system.

AGL considers there is considerable merit in appropriate policy and regulatory bodies working closely with academics and technical experts to investigate whether any regulatory responses may be required to address market changes, including the entry of significant renewable generation (including growing quantities of small-scale, non-scheduled, distributed generation) and the mothballing or retirement of synchronous generation. Detailed analysis and stakeholder engagement is needed to determine whether the underlying market design or function should be adjusted to support any transition within the electricity generation sector.

### **Questions**

- Q.10. What lessons can be learned from Australia and overseas on the effectiveness of information programs and innovation support, and their interaction with other climate policies?
- Q.11. How do information programs and innovation support perform against the principles of cost effectiveness, environmental effectiveness and equity?

AGL supports the use of broad based information programs to facilitate deeper understanding of the challenges associated with climate change and the need to embark on long term systemic reform of industries such as the electricity generation sector.

Innovation is a critical component to support technical and technological innovation that will facilitate emission reductions or abatement into the future. AGL supports the contention that innovation plays a critical but complementary role in the policy suite. As a significant exporter of fossil fuels, Australia also has a strategic interest in managing risks and opportunities associated with international climate change policy. Development and deployment of new or improved near-zero emission technologies (e.g. CCS) should remain a component of domestic GHG reduction policy due to the value at risk of reduced Australian exports.

AGL supports research and development (particularly partnerships between industry and academic institutions) to inform and support uptake of technology development, trials, regulation, and market reform.

### Questions

- Q.12. What policies do you consider are best suited to which sectors and why?
- Q.13. Are there sectors that are better suited to voluntary pricing in the short term and mandatory policies in the longer term and why?

For the electricity generation sector, with long investment horizons and large upfront capital costs, well telegraphed and consistent policy that provides reasonable insight into the investment environment over the medium term is a pre requisite to minimise the impact on energy consumers of emission reductions.

AGL economists have published numerous articles specifically related to electricity generation, climate policy and the importance of integrating these policies more effectively. These form part of our submission and a table with appropriate links has been provided as Appendix Two to this submission.

There are several challenges facing the electricity generation sector, including:

- the current supply and demand imbalance within the electricity generation sector;
- the decline in overall energy consumption over recent years (noting the recent reduction in the rate of decline); and
- barriers to exit for existing plant.

It is important that governments set both binding and aspirational medium and long-term emission reduction targets. As noted above, AGL supports the use of both regulatory and market-based policy mechanisms to deliver the required emission reductions.

Such policies would facilitate a gradual but meaningful reduction in electricity sector emissions, which comprise around one-third of the Australian total.

## Questions

- Q.14. Which international competitiveness impacts are most important to designing Australia's climate policy toolkit, and why?
- Q.15. What is the current risk of carbon leakage, in light of the Paris climate conference and associated national commitments?

In light of the Paris Agreement, Australian policy must seek to strike the balance between the use of domestic and international sources of abatement. Greater international participation and rigour on abatement and emission reduction through the Paris Agreement (the ratcheting provisions) has the potential to create a gradual convergence on the costs associated with these sources of abatement.

This is a long term process and policy makers will need to consider short term implications against longer term competitiveness considerations. This is particularly relevant in the case of emission intensive and trade exposed industries (EITEs) where transitional support will be required at the same time as preparing for competition in a carbon constrained future.

In addition to the above, Australia currently derives 26 per cent of its export goods revenues from coal and other mineral fuels. Therefore consideration of new or improved near-zero emission technologies (e.g. CCS) should be a focus of domestic GHG reduction policy due to the value at risk of reduced Australian exports.

## Appendix Two

The following documents form part of this submission:

Working Paper No.	Title	Location
AGL Policy	AGL Greenhouse Policy	<a href="http://www.agl.com.au/~/media/AGL/About%20AGL/Documents/Media%20Center/Corporate%20Governance%20Policies%20Charter/1704015_GHG_Policy_Final.pdf">http://www.agl.com.au/~/media/AGL/About%20AGL/Documents/Media%20Center/Corporate%20Governance%20Policies%20Charter/1704015_GHG_Policy_Final.pdf</a>
Working Paper 48	Climate Policy – Where to From Here?	<a href="http://onlinelibrary.wiley.com/doi/10.1111/1759-3441.12114/full">http://onlinelibrary.wiley.com/doi/10.1111/1759-3441.12114/full</a>
Working Paper 43	Energy-only markets and renewable energy targets: complementary policy or policy collision?	<a href="http://www.sciencedirect.com/science/article/pii/S0313592615000156">http://www.sciencedirect.com/science/article/pii/S0313592615000156</a>
Working Paper 35	An analysis of Australia’s Large Scale Renewable Energy Target: restoring market confidence	<a href="http://www.sciencedirect.com/science/article/pii/S0301421513007398">http://www.sciencedirect.com/science/article/pii/S0301421513007398</a>
Working Paper 26	“Carbon taxes, toxic debt and second-round effects of zero compensation: the power generation meltdown scenario”	<a href="http://www.emeraldinsight.com/doi/abs/10.1108/17576381211228970/">http://www.emeraldinsight.com/doi/abs/10.1108/17576381211228970/</a>