

**Scott Hamilton**

Executive Director – Renewable Energy  
Department of Environment, Land, Water and Planning  
Victorian Government

By email: [renewable.energy@delwp.vic.gov.au](mailto:renewable.energy@delwp.vic.gov.au)

31 August 2016

Dear Scott,

**AGL Energy Response to the Consultation Paper - Victorian Renewable Energy Auction Scheme (the Consultation Paper)**

AGL Energy (**AGL**) welcomes the opportunity to provide comment on the Consultation Paper.

AGL operates across the energy supply chain and has investments in coal-fired, gas-fired, renewable and embedded electricity generation, upstream gas production and provides energy solutions to over 3.6 million customers nationally.

Within the state of Victoria, AGL is responsible for supplying gas and electricity to over 1.1 million customers and currently has responsibility for in excess of 35% of Victoria's electricity supply through its operations at Loy Yang, Mt Beauty, Somerton and Macarthur. As a consequence of this responsibility, AGL has 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.

AGL recognises the material greenhouse gas footprint associated with the production of electricity and the need for long term policy to facilitate the decarbonisation of the energy sector. AGL acknowledges the importance of constructive and transparent public discourse on the impacts, risks and opportunities associated with these goals and the policies required to achieve them.

In this context AGL has provided feedback on the areas noted in the consultation paper, including recommendations to maximise the benefit of such a scheme whilst minimising the cost of the scheme for energy consumers.

Our detailed feedback on areas requested in the Consultation Paper is documented below. Should you wish to discuss any aspect of this submission, please contact XX on XX or XX.

Yours sincerely,



Tim Nelson  
Head of Policy & Sustainability, AGL Energy





## General comments

AGL welcomes discussion on transition to a decarbonised energy sector. It is critical that the transition to a decarbonised energy sector acknowledges the costs, benefits, challenges, risks and opportunities commensurate with their importance to the community over the long term.

AGL notes in principle, a nationally consistent approach is preferred for development and implementation of appropriate carbon and climate change policy. A renewable energy scheme such as that proposed by the Victorian Government is an important development that should be viewed in the context of Australia's response to climate change including the setting of emissions reduction and renewable energy targets. This is particularly true of the electricity sector given the existence of the National Electricity Market (NEM) and Victoria's critical position within it, importing and exporting energy to and from three of the five state jurisdictions within the NEM.

AGL is Australia's largest private owner, operator and developer of renewable generation and the 2015 AGL Greenhouse Gas Policy outlines a renewed commitment for AGL to contribute to Australia's climate change objectives. As the owner of significant greenhouse gas emitting assets, AGL has committed that it will not extend the operating life of any of its existing coal-fired power stations, and that by 2050, AGL will close all existing coal-fired power stations in its portfolio. AGL will also continue to advocate for effective long-term government policy to reduce Australia's emissions and facilitate further investment in renewable and low-emissions power generation.

The generation mix in the NEM, including in Victoria, is relatively old and emissions intensive by international standards, and around 75% of the installed capacity is already operating beyond its original design life. The decarbonisation and modernisation of the electricity sector will span several decades, and a long-term vision and trajectory for this transition is essential. Establishing long-term policy certainty and resolving electricity market oversupply will be critical to attracting sustainable investment to the large-scale renewables sector.

The Victorian Government should consider complementary policy for the long-term decarbonisation of Victoria's electricity sector, particularly where there are opportunities for the State Government to enhance existing Commonwealth initiatives, such as through planning approval processes, and energy market regulatory settings.

Policy should aim to facilitate an orderly transition to a decarbonised energy sector by providing appropriate certainty to the industry, governing bodies, planners and policy makers. The transition should appropriately value services required to maintain a safe, reliable and progressively decarbonised generation sector. Without a coordinated approach that results in orderly closure, adding large volumes of intermittent renewables may pose risks to various aspects of the energy market. Firstly it is likely to increase the volatility of wholesale energy markets, with very low prices for much of the year and a handful of extreme pricing events during which generators recover their heavy fixed costs. This volatility is unlikely to be acceptable to either investors or customers. In addition, large volumes of intermittent generation may result in system reliability challenges akin to those faced recently in other jurisdictions.

Research published by AGL economists has demonstrated that energy only markets may not be suitable for energy systems with high penetration of intermittent renewables, in part because it may not provide revenue adequacy for firm capacity needed at times of low renewable availability. Without addressing these underlying market design issues, new renewable energy targets may result in market shocks and disorderly closure of incumbent generation. Equally, policy should ensure it includes appropriate measures to assist and foster the transition of the community to a carbon constrained future. As stated earlier, AGL's position is that this is a multi-decade transition. As such, measures to support and foster alternative opportunities within potentially impacted areas must be long term in their commitment and as early as feasible in their commencement.

The implementation of a scheme to inject an estimated 5400MW of renewable capacity can be reasonably expected to impact existing participants, particularly in light of relatively flat demand forecasts. As such, impacts on specific regions should be considered including complementary measures that aim to address such impacts, particularly in the case of energy focussed regions such as the Latrobe valley.

### **Specific responses**

AGL has provided specific responses to the particular questions asked in the Consultation Paper. These responses are to the direct question asked within the context of the information provided. All responses are to be considered in conjunction with our overarching comments in the section immediately above.

#### **1. Scheme Structure**

- How can the Department ensure that a pipeline of projects will be ready to meet the Government's targets for 2020 and 2025 while maintaining appropriate flexibility for Government to adjust the scheme where required?
- How much notice should be provided to industry of upcoming auctions?
- Should capacity be auctioned in consistent capacity tranches (e.g. 200MW etc)?
- At what frequency should auctions be held?
- What proportion of scheme generation should be dedicated to solar projects?
- Should the proportion of solar be different pre and post 2020 to allow a solar pipeline to develop and technology costs to come down?
- Are there any other matters the State should consider when setting the scheme's technology split?
- What is the best way to treat LGCs under the scheme to enable successful proponents to secure project finance, ensure scheme costs are minimised and ensure adequate market interest from industry to participate in the auctions is attracted?
- What are stakeholder's thoughts about complementarity/additionality if the Federal RET were extended/expanded?



AGL recommends the inclusion of any technology able to contribute effectively to the decarbonisation of the generation sector over the coming decades and that the policy be technologically agnostic.

The Government should consider the scheme in two distinct phases, being pre and post 2020. The different treatment of LGC's, the uncertainty regarding technology costs and advances, developments in Federal and other state policies and the industrial environment within which we operate will require a point of assessment (likely in the lead up to 2020) to revise and refine mechanisms, policies, processes and methodologies on the most appropriate structure for post 2020 investment and supporting mechanisms.

Therefore the scheme should be specific with regards to investments required by 2020 but maintain indicative ranges for target capacity, technology splits and support mechanisms for beyond 2020.

Under such a process, the Victorian Government would provide for an assessment of the focus areas for the "post 2020" tranche of investments, taking into consideration a range of factors including:

- Those aspects that worked well in the first tranche of the scheme;
- Subsequent developments in technology, market conditions, and demand forecasts;
- International, national and interstate developments in climate and renewable energy policy; and
- Innovations in financing and investment markets for renewable energy.

The Victorian Government should also be clear in its intention regarding the additionality of post 2020 investments. Any lack of clarity in this area will increase the level of policy risk considered for non-Victorian investments that rely at least in part on LGC revenue and pricing. Without this clarity, there are likely to be detrimental impacts on investments across the NEM.

### **3. Payment Structure**

- Do stakeholders agree with the proposed CfD payment structure approach?
- If a CfD payment structure is used, on what basis should a NEM reference price be set? (e.g. monthly average, half hourly NEM price)?
- What would be the impact of adding a floor price to cap the total payment applicable in any one period?
- Do stakeholders agree that payments should be made under the scheme based on energy delivered as defined above? Are there other ways that stakeholders consider are possible to provide locational signals to projects to ensure they are appropriately sighted on the network?
- Do stakeholders consider that any alternative payment structures could be employed for the scheme, such as a fixed payment approach? If so, what are the relative advantages and disadvantages of these options?
- Do stakeholders agree that a fixed payment approach would be less likely to address the barriers faced by project proponents in relation to attaining project finance, resulting in lower value for money bids?



AGL economists have performed detailed analysis of the interaction of renewable energy and energy only markets (links are provided in the reference section of this submission). The issues in these papers provide a reasonable summary of relevant considerations for the Victorian Government.

Using this as background, AGL makes the following comments with regard to payment structures:

Regardless of the mechanism used (CfD, upfront grant, feed in tariff or other) AGL supports arrangements that encourage exposure to existing market signals to promote projects that represent the most economically effective deployment of electricity generation. Such deployment will need to consider:

- The volume, temporal and geographical trades offs required to identify the most valuable energy generation;
- System requirements in terms of congestion, augmentation and other network requirements that will add to overall costs of any scheme;
- Effects upon on the wholesale market over the short and long term and development of a sustainable investment environment during and beyond the duration of the scheme; and
- The ability to provide or respond to demand for ancillary services.

Ultimately, the design of the policy should be integrated with broader energy and climate policy to ensure investment in new zero-emissions infrastructure is increasingly reliant on electricity market revenue and not subsidies. It is unsustainable for new investment to be increasingly reliant on subsidies. The policy should be implemented in a way that maximises an orderly transition from existing ageing and emissions intensive generation to new zero-emissions infrastructure.

The Victorian Government may wish to consider whether the utilisation of upfront payments (that represent the present value of future payments) designed to reduce upfront costs to an acceptable level is an appropriate alternative.

Such a scheme would encourage greater consideration of market elements listed above in the construction of proposals by potential proponents whilst enabling greater certainty on the costs to the Government associated with the scheme.

To the extent possible the Victorian government should remove itself from the involvement in the market for either electricity or LGC's to avoid any actual or perceived influence regarding the dynamics of these markets.

AGL recommends that the scheme enables the generator to maintain responsibility for the marketing, contracting and sale of output (energy and LGC's). A government agency should simply provide a reconciliation function to ensure contracted generators remain whole under the terms of contracts entered into.

#### **4. Contracting elements**

- Are the above contract elements broadly appropriate?
- Within the contract range of 10 to 20 years, is there an ideal duration, particularly with the aim of minimising project financing costs?
- What would be an appropriate project delay threshold for contract termination clauses?
- Would quarterly payments have a significant impact on financing costs compared to monthly payments?
- What are the implications of a two-way CfD?
- What do stakeholders think about the generation requirements being considered? Where maximum and minimum generation volumes are contained in scheme contracts how should these be set?
- Are there any other contract elements that should be considered?
- Are any of the elements likely to lead to perverse outcomes?

The contracting elements are broadly appropriate based on the information provided. Contracts should be structured in such a way as to achieve the objective of minimising financing risk to appropriate levels whilst enabling exposure to market risk (price and volume) to drive efficient outcomes for the system and for the Government by supporting the most economically efficient projects.

The length of contract duration should account for alignment to existing schemes and to the extent possible avoid abrupt impacts to the market, for example, the Government may seek to taper contract terms to enable a gradual decline in Victorian Government support and greater exposure to electricity markets (with pricing that values the new-entrant costs of an optimal plant mix with appropriate rates of emission reductions to achieve decarbonisation by mid-century).

The increasing penetration of renewables across the NEM (and Victoria specifically) impacts market dynamics over the longer term. AGL consider it likely the NEM will require reform to better align the value streams for generators to the needs of the system. In the event such reform occurs (AGL is of the view that this is required) contracts may need to be revised to better align to the resultant market structures. Such alterations should be struck in such a way as to ensure contract parties remain whole, whilst acknowledging the need to adjust to meet the needs of an evolving system.

Payment timelines for contract parties should be such that they strike the appropriate balance of timeliness and administrative simplicity acknowledging reconciliation procedures are likely to be required in the event of a CfD arrangement.

## **5. Scheme administration and cost recovery**

- What are the relative advantages and disadvantages of the different scheme administration and cost recovery options listed above?
- Is there another mechanism for recovering scheme costs the Government should consider that would result in better outcomes?
- The Department's proposed position is currently to exempt emission intensive trade exposed companies (as defined under the Federal Government's RET scheme) from paying scheme costs. Do stakeholders agree with this approach? Are there any other parties Government should consider exempting from scheme costs? If so, how should this occur?

Where the Government considers support of a particular activity through a form of assistance (subsidy, CfD or otherwise) reasonable, AGL considers it appropriate that such programs are structured in such a way as to be identifiably funded by the Government and not recovered via electricity bills unless specifically acknowledged (such as is currently the case for Greenpower).

This enables the Government to properly and accurately measure costs and benefits associated with the program whilst maintaining transparency with constituents.

Should the recovery of costs be facilitated through electricity bills AGL has no stated preference beyond ensuring any costs of the scheme are transparent to end consumers and the imposition of the levy does not materially impact on the ability of market participants to develop competitive electricity offerings for consumers reflecting their needs and circumstances.

Should recovery occur through electricity bills (in any form) it must be recognised that exemption of any class of consumer (EITE or other) results in a smaller proportion of consumers bearing the recovery burden. As such any exemptions should occur post application of cost recovery procedures, with costs being refunded to exempted consumers by the Government or be borne by the Government in place of the exempted consumer. This would further the transparency of the scheme costs and its distributional impacts. Exemptions are effectively an economic trade off determined by policy makers who are assessing broader economic and social impacts of policy decisions.

## **5. Auction evaluation principles**

- What do stakeholders think of the proposed evaluation criteria set out above?
- Do stakeholders have views on how evaluation criteria might be weighted?
- Are there other evaluation criteria/principles that the Government should consider to ensure the scheme meets its objectives?
- Are the costs associated with developing a proposal to bid into the scheme based on addressing the above criteria effectively likely to be prohibitive?
- What would be appropriate minimum project sizes (both in general and for large-scale solar)?
- Would there be benefit in asking proponents to submit expressions of interest to participate in the auctions to ensure only more advanced projects proceed to the full evaluation round and that costs are minimised for project proponents where possible?

The criteria listed are appropriate for consideration by the Victorian Government.

As noted above, where possible contract parties should be increasingly reliant upon electricity market revenue, not subsidies. The more this is able to be achieved whilst attaining the aims of the scheme, the more the criteria listed by the Government will be considered in the development of bids or applications by contract proponents.

### **Appendix One**

The following documents form part of this submission:

<b>Document title</b>	<b>Location</b>
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>
Climate and electricity policy integration: Is the South Australian electricity market the canary in the coalmine?	<a href="http://www.sciencedirect.com/science/article/pii/S1040619016300306">http://www.sciencedirect.com/science/article/pii/S1040619016300306</a>
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>
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>