



19 October 2015

Renewables SA
Department of State Development

E: DSDRenewablesSA@sa.gov.au

Dear Sir/Madam,

Low Carbon Investment Plan for South Australia

Origin Energy Limited (Origin) welcomes the opportunity to make a submission on the *Low Carbon Investment Plan for South Australia*.

Origin recognises that climate change is a global challenge and unequivocally supports measures to progressively reduce carbon emissions. Ultimately, the internationally agreed goal is to limit average global temperature rise to two degrees Celsius or less, in order to have a realistic chance of avoiding the most extreme impacts of climate change. Origin supports action consistent with the two degree global warming scenario and hopes the Paris agreement will place the world on a pathway to achieving this goal.

In order to meet this challenge we support the Australian and South Australian Governments encouraging a progressive de-carbonisation of the electricity mix with the aspiration of becoming net carbon neutral by 2050 or earlier. We believe that this should include:

- the progressive deployment of renewable energy generation at significant scale;
- regulation which promotes the orderly retirement of old, highly emissions intensive generation; and
- a transparent cost of carbon abatement.

Our preference is that such policies be national rather than state-based. With an interconnected electricity market, national schemes are more efficient than those at a state level, and will deliver outcomes at a lower cost and without unnecessary regulatory duplication. If state targets for low carbon and renewable energy are desired we suggest these be made aspirational and focus on how to secure the most suitable low carbon investments for South Australia and at least cost to South Australian citizens.

Key points

Origin has the following key points to highlight:

- **Promoting low carbon and renewable energy** - whilst the national Renewable Energy Target (RET) is expected to drive investment in the period to 2020, we believe Australia's 2030 emission reduction target will require significant new investment in renewable energy over the longer term. Origin is currently considering opportunities for utility scale solar and would encourage the Government to examine the full range of policy instruments available to support such investment in South Australia.
- **Targets** - we generally support high level targets, such as for emission reductions or renewable energy, being made at the national level. We view Australia's 2030 emission reduction target as the overarching goal for the energy sector to work towards. Origin does

not support a South Australian specific target for renewable energy that would mandate additional obligations to that of the national RET. If targets for renewable or low carbon energy in South Australia are desired we suggest these be made aspirational and focus on how to secure the most suitable generation for South Australia and at least cost to South Australian consumers.

- **Greenpower and voluntary markets** - should continue to be important mechanisms as they allow customers to choose to make an additional contribution to low carbon and renewable energy, without cross-subsidy. We believe GreenPower and other voluntary markets will become an increasing valuable tool as the nation works towards more ambitious carbon reduction targets.
- **Electric vehicles** - with an already high penetration of renewable energy, South Australia is an exciting market to encourage the deployment of electric vehicles.

Promoting low carbon and renewable energy

Origin is committed to meeting our obligation under the RET and can achieve this through various options including building projects directly, underwriting projects through power purchase agreements, or by purchasing certificates on market. As an example, we recently commenced receiving the full output of the 270 MW Snowtown II windfarm, the second largest in the country and located in South Australia. We are also exploring the potential for utility scale solar plants to help meet the target.

Origin is also one of the largest installers of rooftop solar systems in Australia, having directly installed about 90,000 systems to date. In total, about 400,000 of Origin customers have solar systems. This year, Origin launched a new solar leasing product, which allows more customers to access the benefits of solar without having to purchase the system. We are also exploring new battery storage solutions which are expected to be offered towards the end of the 2015 calendar year.

The Large-scale Renewable Energy Target (LRET) of 33 TWh by 2020 is a significant challenge for the energy industry which we estimate will require about 5,000 MW of new renewable capacity to be built over the next five years. To put this in context, to achieve the new build under the LRET will require about another 18 large wind farms like Snowtown II (270 MW) to be built over the next few years.

However, with Australia's 2030 emission reduction target now announced we believe a significant increase in renewable energy will be required in the period 2020 to 2030. As Origin's Managing Director, Grant King noted in a recent speech to CEDA,¹ a 50% Australia wide renewable energy target by 2030 (equating to approximately 125 TWh of renewable energy) would deliver less than half of the announced carbon emissions reduction target.

With this in mind, we support the Australian and South Australian Governments encouraging a progressive de-carbonisation of the electricity mix. In recent submissions² we have stated that this should include:

- the progressive deployment of renewable energy generation at significant scale;
- regulation which promotes the orderly retirement of old, highly emissions intensive generation; and
- some form of carbon price signal for the electricity sector.

Our preference is that the policies listed above be national rather than state-based. In a related submission to the Victorian Government, we suggested that policies should be examined to progressively phase out brown coal generation, as this will deliver the biggest impact on reducing

¹ "Paris and Beyond", Grant King, Managing Director Origin Energy, speech to the Committee for Economic Development of Australia, Brisbane, 9 September 2015.

² For example, see our submission to the Australian Government's consultation paper "Setting Australia's post-2020 target for greenhouse gas emissions", 27 April 2015 and our submission to the Review of the Victorian Climate Change Act 2010, 7 August 2015.

emissions in Victoria and other interconnected regions of Australia including South Australia. Standards are currently being implemented in North America with the USA basing theirs on emissions intensity and Canada on the age of its generators. Either policy could be applied in Australia. In comparison to a carbon tax or emission trading scheme, standards are simple to communicate to the public and their results are more tangible.

In terms of the direct policy support for renewable energy in South Australia, we would encourage the Government to examine all types including grant funding, tax credits and planning regulations. Whilst reverse auction/tender style processes have been conducted recently in Australia³, these may not necessarily be appropriate for early stage or demonstration style projects. As noted above, Origin is currently exploring the opportunities for utility scale solar in Australia and would welcome further discussions on the issue.

Targets

Origin supports the progressive decarbonisation of the electricity sector in Australia and views the increased deployment of solar and wind technologies as a key part of this transition. Our philosophy is that this deployment should be underpinned by sustainable policy that encourages the commercial uptake of renewable generation sources, without excessive cost subsidisation. We expect rooftop solar PV installations to continue growing strongly and have invested in expanding our solar and emerging technologies businesses. We also support the deployment of large-scale generation sources such as utility scale solar and wind.

Falling technology costs have created genuine opportunities for solar and emerging technologies businesses, as demonstrated by the substantial number of alternative energy sellers that have entered markets across Australia. Consumers stand to benefit more from businesses competing for market share to deliver these services at an affordable price than they will from Government interventions. Origin does not support a South Australian specific target for renewable energy that would mandate additional obligations to that of the RET. The cost curve for solar technologies continues to fall largely due to external factors, such as breakthroughs in research and development and improved economies of scale in manufacturing. Mandating additional targets may see the uptake of technology before they reach cost competitiveness, with the result that consumers will pay more for products than they would under a market led rollout.

State jurisdictions must be particularly sensitive to Federal energy and climate change policy and how proposed state policies may interact. Additional state policies can drive up costs for consumers and adversely impact on a state's relative economic competitiveness. We believe that delivering low cost renewable energy generation for South Australia generally requires a nationally consistent approach. Origin therefore encourages the South Australian Government to carefully consider the role its low carbon energy initiatives play in the context of global and Australian carbon reduction targets and initiatives, and with consideration of the broader impact on an oversupplied National Energy Market (NEM).

If targets for low carbon energy in South Australia are desired we suggest these be made aspirational and focus on how to secure the most suitable generation for South Australia and at least cost to South Australian consumers. Government tenders for renewable energy, as long as they are not additional to the LRET, may be one way to achieve this, although we note above that all policy options should be considered.

GreenPower

GreenPower is a voluntary, government accredited, program that supports the production of electricity from renewable sources over and above the mandatory targets set under the RET. GreenPower has proved to be a very popular scheme and Origin believes that GreenPower should continue to be an important mechanism as it allows those customers who choose to make an additional contribution the opportunity to do so. Importantly, it does not involve a cross subsidy

³ For example, in the ACT for wind farms.

and does not force other customers to pay for this additional support. In this way it is an equitable, market driven product.

Essentially, GreenPower involves retailers purchasing additional Large-scale Generation Certificates (LGCs) from accredited providers (such as wind and solar farms) for their GreenPower customers and then voluntarily surrendering these. The GreenPower program undertakes a rigorous audit of providers to ensure the correct amount of LGCs has been purchased and surrendered each year.

Electric vehicles

As the electricity sector progressively decarbonises, it will increase the abatement potential of electric and hybrid electric vehicles. With an already high penetration of renewable energy, South Australia is an exciting market to encourage the deployment of such new technologies.

We suggest that policies be examined which support the cost effective uptake of new technology in Australia. We note the recent report for the Electricity Supply Association of Australia⁴ which seeks to promote debate about effective policy measures to promote the uptake of electric vehicles in Australia. Policies examined in this report include supporting infrastructure such as charge points; stamp duty and registration reductions; and preferential parking and traffic lane treatment.

Electric vehicle sales can also be coupled with GreenPower or similar products so that they are powered by fully renewable electricity generation. Further, there are opportunities for South Australian industry to become involved in the manufacture and support of electric vehicle components and the charging infrastructure.

If you have any questions regarding this submission please contact Matthew Kaspura (Manager Carbon Policy) on +61 2 8345 5287. We look forward to further consultation as South Australia's climate change policy evolves.

Yours sincerely,



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⁴ Energia, *Review of Alternative Fuel Vehicle Policy Targets & Settings for Australia*, July 2015.

About Origin

Origin Energy (ASX: ORG) is the leading Australian integrated energy company with market leading positions in energy retailing (approximately 4.3 million customers), power generation (approximately 6,000 MW of capacity owned and contracted) and natural gas production (1,093 PJ of 2P reserves and annual production of 82 PJ). Through Australia Pacific LNG, its incorporated joint venture with ConocoPhillips and Sinopec, Origin is developing one of Australia's largest CSG to LNG projects based on Australia's largest 2P CSG reserves base.

Origin also aspires to be the number one renewable and low carbon energy company in Australia. Origin is one of the largest installers of solar systems in Australia, having directly installed about 90,000 systems to date. In total, about 400,000 of our retail customers have solar products. This year, Origin launched a new solar leasing product, which allows more customers to access the benefits of solar without having to purchase the system. We are also exploring new opportunities to invest in utility scale solar projects.