BRIEFING PAPER: COMMUNITY ENERGY & REVERSE AUCTIONS

Introduction

Community renewable energy is an emerging concept for the deployment of renewable energy in Australia. The benefits of community-owned renewable energy projects have been demonstrated in numerous countries around the world. However in a context of already established centralised fossil fuel generation, incentives are required to support communities to develop such projects. In a rather bleak situation on a national level, where the RET Review and failed negotiations have created huge uncertainty in the renewable energy sector, state and local governments have the opportunity to support and promote this emerging community energy sector as part of their efforts to increase renewable energy, reduce carbon emissions, invest in communities and generate sustainable industries. The Coalition for Community Energy (www.c4ce.net.au) advocates for the introduction of Reverse Auction mechanisms by State and Territory governments, to support community energy projects greater than 100kWs. Reverse Auctions have been successfully applied in the ACT and more than 50 countries world-wide.

Why we need a new policy

There is growing evidence of the social, economic and environmental benefits of community-owned renewable energy projects worldwide. Success stories of community renewable energy from countries such as Denmark, Germany and the UK have shed light on the important role communities can play in the deployment of renewable energy – e.g. supporting a rapid increase of renewable energy by mobilising private investment, contributing significantly to the acceptance of new technologies, stimulating local economies and improving energy security.

The success of community renewable energy has been built on national as well as sub-national incentives such grant and loan programs, certificate schemes (such as the RET), feed-in tariffs (FiTs) and tax incentives.

In the light of an emerging community energy sector in Australia with 22 projects in operation and more than 70 projects in development, the interest in community renewable energy is rising. In June 2014, over 340 people came together in Canberra at the inaugural Community Energy Congress to discuss how we can grow the community energy sector in Australia. While state and local governments are exploring ways to support the sector, the current national policy environment is very challenging for community renewable energy projects.

While communities have pioneered two investment-based community energy business models for community solar projects <100kW, the majority of larger community renewable energy projects have had to be put on hold, due to lack of upfront funding and until recently RET uncertainty. As such a new policy lever is needed to support these larger community wind, solar and bioenergy projects to get off the ground. Larger community energy projects bring greater local economic benefit, including employment, local community funds and more. They also have greater community building and energy education outcomes.

What is a Renewable Energy Auction or Reverse Auction?

Drawing from national and international experience, a range of different policy mechanisms for promoting community renewable energy are available to policy makers.A policy that has

received increasing attention in the last few years is the *Public Competitive Bidding* also called a *Renewable Energy Auction* or a *Reverse Auction*.[1] Reverse Auctions, also known as "demand auctions" or "procurement auctions", are a market based mechanism that has already been used in different sectors including the aircraft industry, mobile-phone licenses and pollution.

In the energy market, a Reverse Auction differs from other tariff-based schemes (e.g. FITs) by specifically targeting selected renewable energy generators. The process involves public authorities issuing a call for tender to install a certain capacity of renewable energy generation. Project developers who participate in the auction submit a bid with a price per unit of electricity at which they are able to realise the project. The government evaluates the offers on the basis of the price and a range of other tailored selection criteria and signs a power purchasing agreement with the successful bidder.[2]

This mechanism has been successfully applied and continued to gain prominence with the number of countries adopting renewable energy auctions increasing from 9 in 2009 to at least 55 by early 2014.[3] In Australia, the Australian Capital Territory has adopted it and is in the process of delivering three Reverse Auctions for different types of renewable energy. In particular, the ACT has provided incentives for community renewable energy projects by introducing a Community Solar Auction. A summary of the ACT schemes is provided as an appendix to this briefing paper.

Internationally, countries and states such as the UK, Brazil and California have held auctions to award licences for their wind, solar PV, hydro and bio-power capacities. The Californian Renewable Auction Mechanism, which was introduced in 2011 for renewable energy in the midsize utility market of 3-20MW projects, will be extended to 2017.

Benefits and Opportunities

When well designed, Reverse Auctions meet the principles of a liberalised market and supports free competition of market actors. It allows for an efficient use of public budgets by delivering the largest volumes of production against the lowest cost and a range of other important policy priorities, such as local economic development, community support for and benefit from renewable energy – if they are tailored in to the auction guidelines.

In summary the benefits of a Reverse Auction for renewable energy generally include:

- increasing cost efficiency due to price competition
- increasing market efficiency
- allowing price discovery of renewable energy based electricity
- limiting the risk for investors by offering a guaranteed revenue over a set period of time
- helping to regulate the capacity by setting a targeted or capped volume
- supporting controlled budgets when using a ceiling price
- helping to increase the predictability of renewable energy electricity supply
- enabling alignment of renewable energy development and infrastructure planning.

Additionally the Reverse Auction mechanism offers the chance to select a preferred bidder on criteria other than, or as well as, price which can help to achieve multiple policy objectives e.g. higher community involvement, local employment, local revenue distribution, local ownership

[1] REN21. (2014). Renewables 2014 Global Status Report. Paris.
[2] IRENA 2014: Renewable Energy Auctions in Developing Countries. www.irena.org/Publications.
[3] REN21. (2014). Renewables 2014 Global Status Report. Paris.

etc.. Ultimately, including such local content conditions can support specific types of projects which deliver significant co-benefits but which would otherwise be excluded.

The Reverse Auction policy mechanism has been successfully implemented in Australia. Its implementation is a new Queensland government election promise.[4] Should other states such as NSW, Victoria and South Australia apply it as well, this would provide increased policy certainty for both the community renewable energy sector and the large-scale renewable energy sector. It would ensure a consistent approach across the country while allowing flexibility to tailor the policy to state-specific policy priorities and geographically appropriate technologies. It could also work in tandem with such policies such as the NSW's Government's commitment to purchasing 6% GreenPower[5], where by electricity could be directly purchased from community and other renewable energy projects in the state via Reverse Auction.

Conclusion

Reverse Auctions tailored to community ownership of renewable energy will help state governments meet a range of their policy goals, from regional economic development to renewable uptake and emissions reductions. It is a tried and tested policy approach, and if adopted broadly by state governments across Australia, could help create the policy certainty and consistency that the community and larger-scale renewable energy sectors urgently need.

Further Information

To discuss this idea or for further information please contact:

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Additional Links:

ACT Government Websites (2015):
http://www.environment.act.gov.au/energy/next_generation_solar
http://www.environment.act.gov.au/energy/community_solar

Reneweconomy (2014):

http://reneweconomy.com.au/2014/act-solar-auction-grid-paper-mill-win-top-awards-17248

[4] http://reneweconomy.com.au/2015/solar-and-utility-scale-renewables-big-winners-from-qld-election-68281
[5] http://www.environment.nsw.gov.au/resources/government/140567NSWGREP.pdf

Appendix A: ACT's Reverse Auction Scheme - Blue Print for a Community Renewable Energy Policy in Australia

In order to meet its ambitious renewable energy targets, 90% of renewable energy in 2020, the Australian Capital Territory (ACT) has legislated a feed-in tariff (FiT) mechanisms and reverse auction, whereby the FiT rights for a predetermined capacity are auctioned.

The ACT's reverse auction scheme is a first of its kind in Australia, and crucially, also provides incentives for community involvement as well as community ownership of renewable energy systems.

The ACT Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011 provides the framework for this mechanism, promoting the establishment of large-scale facilities (defined as capacity of more than 200kW) for the generation of electricity from solar, wind and another energy source (to be defined by the Minister).

Solar Auction

The first Request for Proposal was issued for large scale solar installations of up to 40 MW in early 2012. The Solar Auction has been a huge success providing a "simple and effective way of attracting large solar projects to the Territory" (ACT Government). With the wining projects FRV's Royalla Solar Farm (20 MW), Zhenfa's Mugga Lane Solar Park (13 MW) and OneSun Capital Solar Farm (10MW) to be completed in mid-2015, ACT will have three of the largest solar power facilities in Australia. This experience formed the blueprint for following rounds for wind and community solar.

Wind Auction

In March 2014 ACT Government announced a 200 MW wind auction that is expected to provide around 24% of the ACT's electricity consumption - equivalent to approximately 80,000 Canberra households - and will deliver around 40% of the required renewable energy investments required to achieve their 90% renewable energy target.

The auction design included specific conditions including that it was open to local but also regional generators where they demonstrate exceptional local economic development benefits and competitive pricing. Positive community engagement practices and demonstrated outcomes was a key criteria in assessing the proposals. The applicants' approach to consulting, involving and benefitting the local community was evaluated by an independent Advisory Panel and was a determining factor for winning the bids.

One of the winning projects, the Coonooer Bridge Wind Farm, will be the first developer-led wind farm in the country that offers co-ownership with the local farming community.

Community Solar Auction

In the light of the national and international success of community renewable energy projects, the ACT government issued the Request for Proposals for a large-scale community solar with a capacity of 1MW in June 2014. The request for proposals has been facilitated by further amendments to the Electricity Feed-in Act 2011 in March 2014.

The scheme provides a direct grant of up to 20 c/kwh for 20 years, which is slightly higher than the national leading price under the Large-Scale Auction Scheme. Local residents and small consortiums in ACT have been invited to bid in the tender process and are handled on a first-come-first served basis.

The selection criteria for Community Solar Auction Scheme are: collective of individuals and businesses (supported by an experienced developer) pool their resources to build a generation facility which they then own; solar developers, in particular, must apply best practice community engagement processes.