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Wind Auction Review

ACT Government, Environment and Planning Directorate

Summary report

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Wind Auction Review

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Acronyms

ACR	Australian capital region
ACT	Australian Capital Territory
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CMTEDD	Chief Minister, Treasury and Economic Development Directorate
DLF	Distribution Loss Factor
EPD	Environment and Planning Directorate
EV	Evaluation criterion
FiT	Feed-in-Tariff
FTE	Full Time Equivalent
LGCs	Large-Scale Generation Certificates
MLF	Marginal Loss Factor
MW	Megawatts
MWh	Megawatt-hours
NEM	National Electricity Market
NER	National Electricity Rules
PPA	Power Purchase Agreement
RET	Renewable Energy Target
RFP	Request for Proposals
TFG	Treasury Financial Agreement
WF	Wind Farm

Introduction

The Australian Capital Territory (ACT) Government established the Large-scale Feed-in-Tariff (FiT) Scheme under the *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011* ('the Act'), which enables the Minister for the Environment ('the Minister') to grant FiT entitlements for large-scale renewable energy generators. Following the 2013 Solar Auction which released 40 megawatts (MW) of FiT capacity under the Act, the *2014 Amendment Bill* was passed, increasing the cap to 550MW and allowing for generators to be located outside the Australian Capital Region (ACR), subject to meeting certain conditions.

In March 2014, the Minister announced that 200MW of capacity would be made available through a competitive bidding process for large-scale wind farm projects. The reverse auction offered the opportunity of 20-year FiT entitlement for wind projects between 15 to 100MW generating capacity, that are located within the ACR or a participating jurisdiction in the National Electricity Market (NEM).

The results of the Wind Auction were announced in February 2015, with three successful projects being granted a FiT entitlement:

- RES's Ararat Wind Farm (80.5MW), located 9 to 17 kilometres northwest of Ararat in Victoria

- Windlab's Coonoor Bridge Wind Farm (19.4MW), located northwest of Bendigo in Victoria
- Neoen/Megawatt Capital's Hornsdale Wind Farm (100.0MW), located 8 to 24 kilometres north of Jamestown in South Australia

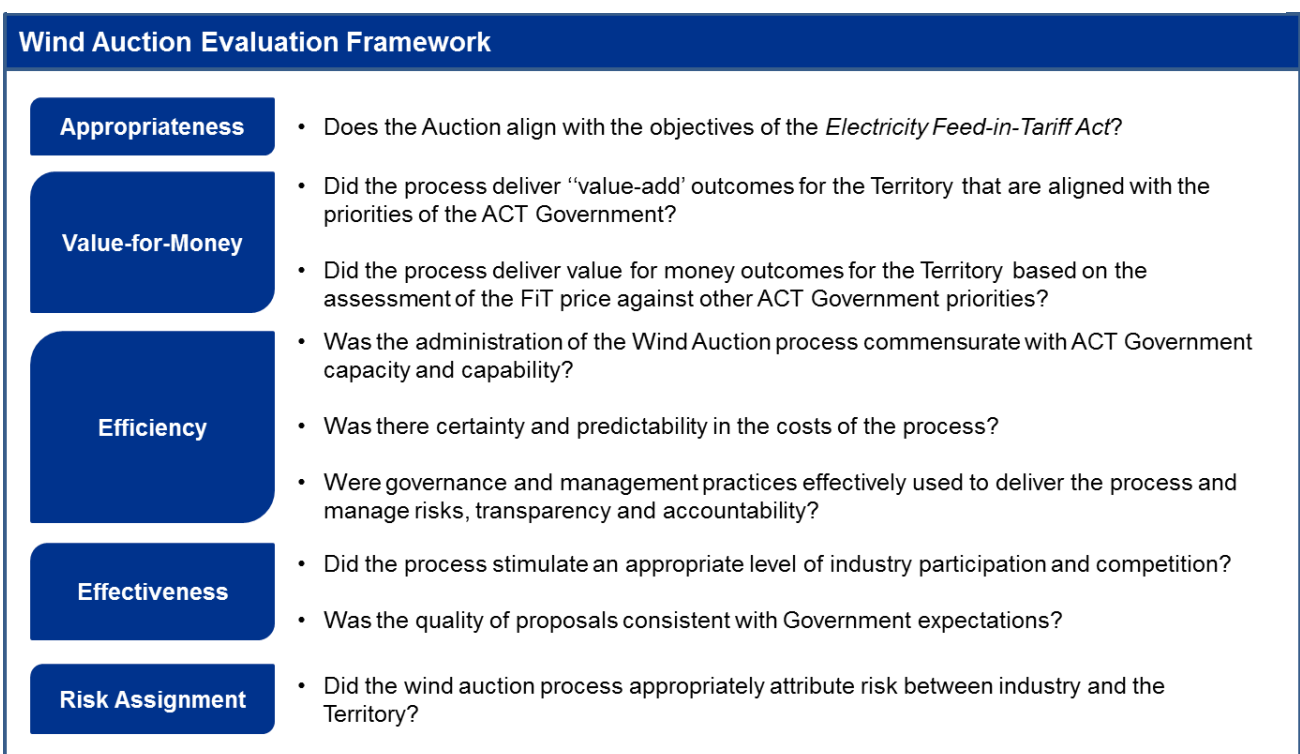
Jacobs was engaged by the Environment and Planning Directorate (EPD) to conduct an independent review of the Wind Auction process and outcomes in accordance with section 22 of the Act, which requires the Minister to "review a FiT capacity release within 6 months after the last FiT entitlement under the release is granted".

Review Methodology

The Wind Auction process and outcomes were assessed against five themes, as summarised in Figure 1.

To inform the Review, a desktop assessment of information relating to and underpinning the Auction process and all of the submitted proposals was undertaken. Jacobs also conducted twenty-nine face-to-face and telephone interviews providing the opportunity for all participants to give feedback on the process. The parties interviewed include the Wind Auction Secretariat, the Minister for the Environment, Advisory Panel and sub-panel members, Proponents, and ActewAGL Distribution.

Figure 1: Wind Auction Evaluation Framework



Description of the Wind Auction

Following the ACT Government's first reverse auction for large-scale solar generation in the ACT, the *2014 Amendment Bill* to the Act was passed, entitling the Minister to issue feed-in tariffs (FiTs) for up to 550MW of generation capacity.

The ACT's Climate Change Action Plan 2 (AP2) sets the framework for the Wind Auction, and seeks to achieve by 2020:

- A carbon neutral government
- 90% renewable energy mix
- 40% emission reductions against 1990 levels

The long term aim is for carbon neutrality by 2060.

The FiTs awarded under the reverse auction mechanism are to be firm, fixed and flat over a 20 year period.

Proposals were required to meet a number of eligibility criteria to be considered, and were then assessed based on analysis of the FiT price proposed and their score against four weighted evaluation criteria (EV), which were:

- EV1 – Risk to timely project completion (weighting: 50%)
- EV2 – Local community engagement (weighting: 20%)
- EV3 – ACT economic development benefits (weighting: 20%)
- EV4 – Reliance on Treasury Financial Guarantee (weighting: 10%)

Requirements for participation and grants of entitlement

Eligibility criteria

The Request for Proposals (RFP) which governed the auction process was released by the Secretariat, and set the parameters for the eligibility and evaluation of bids.

Ten criteria relating to the entity putting forward the project and the generating system proposed, as shown in Table 1 below, had to be met for the bid to proceed to full assessment.

Table 1: Eligibility criteria

Proponent eligibility criteria

- A Proponent must be a **non-tax exempt Australian company** incorporated under the Corporations Act 2001 or a wholly or majority owned Commonwealth or Australian state or territory government body.
- Proposals will only be accepted from a **single legal entity**.
- A Proponent must **not be insolvent**, or become subject to an Insolvency Event.
- A Proponent must **not have had a judicial decision relating to employee entitlements made against it** (not including decisions under appeal) and not have paid the claim.
- A Proponent must not have been named as an organisation that has **not complied with the Workplace Gender Equality Act 2012** (Cth).

Proposal eligibility criteria

- A Proponent must submit a completed Proposal Form (Attachment A) and, if applicable, a High Guarantee Proposal Variance Form (Attachment F), and all required attachments by the specified closing date and time.
- Proposals must be for a **wind generating system**.
- Proposals must be for the establishment of a single generating system that has **no less than 15MW and no more than 100MW** generating capacity as determined at its point of connection to an interconnected national electricity system.
- Generating systems must be connected to the interconnected national electricity system (as defined in the Act).
- Proposals must be **for a new (yet to be constructed)** generating system.

Project type and location

Pursuant to section 11 of the Act, the Auction sought bids for wind energy projects located either in "the Australian capital region; or outside of the Australian capital region if the Minister is satisfied that the person's proposal –

- offers exceptional economic development benefits to ACT renewable energy industries; and
- minimises costs to electricity consumers"

Multiple proposals

Proponents were permitted to submit more than one proposal, provided that they were not mutually exclusive – i.e. two alternative generating systems could not be proposed for the same site. Multiple proposals would be assessed independently and could be granted separate FIT entitlements.

Development approval

Projects eligible to participate in the Wind Auction had to have lodged development approval

documentation with the relevant State/Territory authority by 1 March 2014.

Arrangements for access to land for the project(s) also had to be provided in the bid documentation, and the onus was on Proponents to arrange network connections with the relevant service provider, and reflect this in the value of the FiT being sought.

Treasury Financial Guarantee

The Wind Auction provided Proponents with the option of submitting a Low Guarantee and High Guarantee proposal for the same project, on the understanding that a FiT could not be awarded to both a High and Low Guarantee proposal for the same generating system.

Where Proponents decided to submit High and Low Guarantee proposals, information submitted for both proposals had to be identical apart from variations to the Proposed Guarantee Cap multiplier, which was required to be set out in the High Guarantee Variance form provided by the Wind Auction Secretariat.

Low and High Guarantee proposals for the same project were assessed independently, as separate proposals.

Conflicts of interest or collusion

In submitting a bid for grant of FiT entitlement, the Proponent was required to read the Wind Auction RFP (pp. 36) and confirm that they had:

- a) No knowledge of FiTs being proposed by other proponents, or of the associated costs and prices forming the basis of that FiT
- b) Not engaged with any other person intending to submit a proposal, or a related entity of that person
- c) Not otherwise engaged in collusion, anti-competitive conduct in preparation of their proposal
- d) No relationship to any other Proponent, except as disclosed in their proposal.

Insurance

Successful Proponents were required to take out for the duration of the FiT entitlement term, public liability insurance (and any other insurances required) at an amount satisfactory to the Minister to reflect the type and scale of risks associated with their proposal (pp.37 of the Wind Auction RFP).

Conditions of entitlement

Holders of FiT entitlements are obligated to comply with off-take arrangements, including:

- Registering with AEMO to sell on the spot market, and/or,
- Entering into a power purchase agreement for its electricity,
- Creating and registering Large-scale Generation Certificates (LGCs) for all eligible generation, transferred at no cost to the ACT, and,
- Registering the generating system as a GreenPower generator.

The Act also provides the Minister with the power to impose conditions on FiT entitlements regarding key milestones and the implementation of Proponents' proposals. For example, successful Proponents must submit quarterly progress reports during the construction of their project and annual reports thereafter for the duration of the period of FiT entitlement (20 years). The format of these is specified in successful bidders' Deed of Entitlement.

Evaluation

The purpose of the evaluation is to consider the impacts and outcomes of the Wind Auction process and determine whether:

- The objectives of the Act have been met (i.e. appropriateness)
- A value for money outcome has been attained
- The Wind Auction process was efficient and effective
- The assignment of risk outcomes between proponents and the Territory was appropriate and effective

Appropriateness

The appropriateness of the Wind Auction process was assessed by analysing whether it aligned with the objectives of the Act (from Part 2, Section 5). As shown below, the Wind Auction appears to have achieved all four objectives of the Act.

Objective (a) Promote the establishment of large-scale facilities for the generation of electricity from a range of renewable energy sources in the Australian Capital Region.

Achieved. As the second release of capacity under the Act, the Wind Auction expands the scope of power generation to another renewable energy source. Although none of the successful projects will be built within the ACR, substantial investment into R&D and training will accrue to the region.

Objective (b) Promote the development of the renewable energy generation industry in the ACT and Australia consistent with the development of a national electricity market.

Achieved. The Wind Auction process has secured investment from a range of new and existing renewable energy generation industry players in the ACT and Australia. The timing of the auction was particularly important given the lack of viable contracting arrangements and supporting policy available through other Australian governments (state and Commonwealth) or local merchant options. Most proponents' projects had been in development for several years leading up to the auction and were essentially "shovel ready", but required a government-led mechanism such as the Wind Auction in order to secure financing and commence construction.

The Wind Auction has further consolidated the ACT's reputation as a hub for renewable energy as

demonstrated through the ACT Government's recently released economic strategy *Confident and business ready: building on our strengths*, which highlights renewable energy as one of the ACT's key future growth areas.

Furthermore, other jurisdictions are now investigating reverse auctions as a potential mechanism for the competitive procurement of renewable energy.

Objective (c) Reduce the ACT's contribution to greenhouse gas emissions and help achieve targets to reduce the ACT's greenhouse gas emissions.

Achieved. Accredited renewable energy power stations can create Large-scale Generation Certificates (LGCs) based on the amount of eligible energy produced above their baseline. Under section 3.14 of the Wind Auction RFP, successful Proponents are required to create and transfer the LGCs for all eligible electricity generated by the system to which the FiT Entitlement is held to the ACT.

Around 11.6 million tonnes of GHG abatement could be achieved over 20 years from the 200MW of generation capacity developed under the Wind Auction (ACT Government, 2015b), especially if this displaces power generation from non-renewable sources.¹

Objective (d) Address the need for urgent action to be taken to reduce reliance on non-renewable energy sources while minimising the cost to electricity consumers.

Achieved. Buying and selling LGCs is a way in which wind generation can be factored into the ACT's emissions inventory (ACT Government, 2012).

The pass-through cost is expected to cost households \$1.79 a week in 2020 and decline thereafter (ACT Government, 2015b).

¹ ACT Government. This assumes an average emission intensity of grid supplied electricity of around 1.0 t/MWh. The level of abatement may be lower if the displaced emission intensity is lower

Value for money

Did the process deliver 'value-add' outcomes for the Territory that are aligned with the priorities of the ACT Government?

The Wind Auction process applied evaluation criteria that clearly communicated the ACT Government's priorities to industry, and enabled the assessment to consider the risks and costs associated with each proposal in making a value for money decision.

The process recognised and encouraged innovation and leading practice in local community engagement, secured strong investment in the ACT as a hub for renewable energy skills and research, and selected projects that were assessed as having relatively low risks to timely project completion. However benefits accruing to local ACT businesses associated with construction and operation of the wind farms are limited as all of the successful projects are based outside of the ACR.

As described in the Wind Auction RFP, value for money was assessed by comparing each proposal's FiT price to its performance against four evaluation criteria (EV1-4), as discussed below.

EV1: Risks to timely project completion

This criterion was assigned the greatest weighting (50%) based on lessons learned from previous reverse auctions such as in the UK, where the initial round of projects selected offered attractive prices but ultimately most failed to reach completion. Thus, the Wind Auction outcomes reflected projects that achieved the highest scores against this criterion. Successful Proponents provided demonstrated capability and experience in the development of wind farms, evidence of access to funds, and clearly documented details regarding technology and construction considerations.

In addition, based on the experience gained from the 2013 Solar Auction, the ACT Government required proposals to demonstrate that they were an advanced stage with approvals. This risk was particularly high for the Wind Auction given that projects could be awarded in different jurisdictions with varying approval requirements. Also, awarding FiT entitlements to projects that have not yet been approved by planning authorities can create an impression that the project will be "fast-tracked" or has special exemptions from regular planning processes.

Success against this criterion has already been demonstrated, with Coonooer Bridge, Ararat, and Hornsdale Wind Farms all achieving financial close between the announcement of the outcomes of the Wind Auction and the time of this Review.

EV2: Local community engagement

Proponents were required to address this criterion by providing a detailed *Community Engagement Plan* as an attachment to their proposal form. Proponents were supplied with the ACT's *Best practice community engagement in wind development* (Attachment E to the RFP) to help inform their understanding of the range of community engagement approaches and practices that can potentially be applied at various stages of their proposal.

The auction process was successful in prescribing expectations around approach to community engagement, while recognising that Proponents would be at an advanced stage of project development and could do little to change practices at this point in time.

EV3: ACT Economic Development Benefits

The Wind Auction process has resulted in significant investment and economic development opportunities for the ACT's renewable energy industry. In particular, there will be strong investment in the ACT as a hub for renewable energy skills and research.

An estimate of the aggregate economic benefits from the three successful projects is:

- \$18m in R&D contributions to the ACT
- \$240m in broader economic benefits
- \$250,000 industry attraction (renewable energy showcase) in the ACT
- \$250,000 investment in renewable energy education and 10 undergraduate scholarships in the ACT

As none of the successful projects are to be built within the ACR, the benefits to local businesses through the inclusion of regional contractors and labour force are likely to be less substantial. Instead, the successful projects have committed to significant investment in developing the ACT renewable energy industry's knowledge economy – i.e. objectives 1 and 3 of the *ACT Renewable Energy Investment Framework*, which focus on local renewable energy research, skills and education. Many stakeholders interviewed suggested that contribution to these objectives should be prioritised over short term

construction jobs associated with the wind farm, as the renewable energy knowledge economy is emerging as a key priority sector for long term economic growth in the ACT. In addition, this sector is more closely aligned with the resource profile of the ACT economy (e.g. highly skilled workforce, strong research and tertiary institutions, limited land).

EV4: Reliance on Treasury Financial Guarantee (TFG)

Low reliance on the TFG reduces the risk or liability of the ACT Government regarding the 20-year FiT entitlement, but increases the risk to Proponents as financial institutions perceive this as a significant sovereign risk in the project. Consequently, Proponents and their financial institutions consider this risk in financial terms, which results in a low reliance on the TFG leading to higher FiT costs.

However the design of the process – allowing Proponents to have both high and low TFG options for their proposals – was highly successful in enabling the ACT Government to understand and compare the risks and costs associated with the varying options, and select the most appropriate option based on Treasury's preferred position.

Did the process deliver value for money outcomes for the Territory based on the assessment of the FiT price against other ACT Government priorities?

The Wind Auction achieved relatively low FiT prices ranging from from \$81.50/MWh to \$92/MWh. However the method used to calculate the relative costs to electricity for consumers could be improved and communicated more clearly to Proponents.

There was broad agreement among stakeholders interviewed that the Wind Auction enabled the ACT Government to test the market and ultimately procure wind energy at a highly competitive price. The outcomes exceeded expectations of FiT prices and capacity factors based on AECOM's *Pathways to wind power development in the Australian Capital Region report* (2013), which estimated FiT prices to be between \$85/MWh and \$100/MWh. The projects awarded the FiT entitlement through the Wind Auction were within and below this range, at:

- \$81.5/MWh – Coonooer Bridge Wind Farm, Victoria
- \$87/MWh – Ararat Wind Farm, Victoria

- \$92/MWh – Hornsdale Wind Farm, South Australia

To assess the relative value for money of proposals, the Advisory Panel evaluated the relative costs to electricity consumers of the FiT proposals in accordance with the Act. This was of particular importance with respect to s.11 (1)(b)(ii) of the Act, given that the proposals recommended for the Grant of a FiT entitlement were not in the ACR.

For each agreement, the proponent receives the FiT support payments which operate as a contract-for-difference on the NEM price. The proponent also passes over the LGCs received for their renewable generation output.

Under the Act (section.17A), the form of the FiT support payment is:

$$(\text{FiT} - \text{SP}) \times \text{quantity of electricity}$$

Where:

- FiT means the feed-in tariff, stated in the FiT entitlement holder's grant of FiT entitlement, for the holder's eligible electricity for the period.
- Quantity of electricity means the quantity of the FiT entitlement holder's eligible electricity for the period.
- SP means the spot price value for the FiT entitlement holder's eligible electricity for the period.

The quantity of electricity is interpreted as the net output from the wind farm at the wind farm's NEM meter.

The spot price value, for eligible electricity, means the amount that would have been paid for the electricity by AEMO if the electricity had been sold on the spot market. The spot market as defined in the National Electricity Rules (NER) chapter 10 is *the spot market established and operated by AEMO in accordance with clause 3.4.1*. Clause 3.4.1 includes the markets for both energy and ancillary services.

The spot price thus includes any payments that the proponents might receive from AEMO under both the energy and ancillary services markets. The energy value would effectively be:

- The metered energy at the connection point multiplied by
- The Marginal Loss Factor (MLF) for the connection point multiplied by

- In the case of a distribution connected generator, the Distribution Loss Factor (DLF) multiplied by
- The Regional Reference Price (RRP) of the NEM region the generator is located in.

Considering the above, and noting that NEM settlement periods are for each 30 minute period within the relevant billing period, the factors that impact on the cost of electricity via the FiT support payments are:

- *Differences in average spot prices between the NEM regions that proponent's plants are based in.* It is noted that forecasts for these differences will not be readily available in the evaluation process, so the evaluator needs to consider the practicality and efficacy of obtaining forecasts (or of applying historical values) versus excluding the factor from analysis. The outcome of this decision should be documented along with any assumptions made in order to assess whether the factor is likely to be material or not in the evaluation.
- *Differences in output-weighted spot price impacts relative to the average spot price.* The time at which wind output is high or low relative to the regional spot price variation can be significant. Although it would be beneficial to capture the impact of wind farm location on the spot price received, it may also be difficult and costly to do so.
- *Differences in MLF between the connection points of the proponents' plants.* MLFs are calculated annually by AEMO for each generator connection point. Revenue received by the wind farm from AEMO and passed back to the ACT electricity distributor and then to the customers' account is affected by the MLF. Wind farm proponents who are nearing financial close on their project would typically have an assessment of MLF made.

The MLF not only impacts the electricity value but also directly impacts the number of LGCs created by the wind farm, which are also of value to the customer under the FiT scheme. Consequently, although this is not considered likely to have impacted upon selections in the current capacity release (because MLF differences are usually not significant), Jacobs recommends that the expected MLF impacts be considered in evaluating proposals in the future.

- *The impact of the DLF adjustment for those plants that are distribution connected.* For

future releases it is recommended that decisions made about including or excluding these factors from the analysis should be documented along with any assumptions made in order to assess whether the factor is likely to be material or not in the evaluation.

- *The way in which the above parameters might change through the term of the agreement.* In evaluating the average spot price effect it is noted that the Advisory Panel has applied a forecast of the regional average spot prices in making an assessment. This is preferred over using historical parameters wherever a reasonable forecast is available because changes in the market and the construction of the proposed wind farm itself can materially impact on the price-sensitive parameters.

Efficiency

Was the administration of the Wind Auction process commensurate with ACT Government capacity and capability?

The Secretariat successfully leveraged experience from the Solar Auction and built lessons learned into the administration of the Wind Auction process. They provided high quality information by developing supporting materials leading up to the auction commencement date, as well as through periodic (weekly) Q&A format responses to proponents during the evaluation process. There was also a clear understanding of roles and responsibilities amongst the sub-panels, Advisory Panel and Secretariat. However, the Secretariat was under-resourced for the scale and complexity of the Wind Auction leading to some delays and omissions in the administration of the process.

By initiating the reverse auction mechanism with a relatively small scale capacity release (solar generation capacity of 20 MW for the fast-track stream and a further 20 MW for the regular stream) for projects located solely within the ACT, the Secretariat was able to test the process and build industry confidence regarding the ACT Government's commitment to supporting renewable energy.

Experience gained by the Secretariat in administering the Solar Auction process was clearly transferred to the Wind Auction process, with a similar structure but greater level of clarity provided to Proponents regarding all aspects of the process.

Advisory Panel and sub-panel members interviewed all stated that the organisation and preparation conducted by the Secretariat appeared to be highly efficient. There was a high level of clarity around the scope of their roles and responsibilities and timelines for the Wind Auction process. They also noted that materials to inform their assessment were well-structured and organised, as Proponents had been provided with response templates for each criterion and the financial details, enabling them to efficiently review and compare proposals individually and as a panel.

Similarly, Proponents generally found the Secretariat provided comprehensive and high quality advice, both in the level of detail outlined in the Wind Auction process documents, and in responses to questions raised by Proponents during the process.

Due to the strict probity requirements associated with Government competitive tender processes, Proponents felt that some inefficiency resulted from the lack of opportunity to seek specific clarifications relating to their proposal. Proponents also felt that the time taken to respond to legal and financing queries suggested that there was a shortfall in resourcing within the ACT Government to resolve such queries.

The greater scale (from 40 MW in the Solar Auction to 200 MW in the Wind Auction) and complexity (Proposals from across three jurisdictions) of the Wind Auction called for increased resourcing. Furthermore, resourcing associated with the ongoing administration of the FiT entitlements awarded needs to be factored into resource planning.

Was there certainty and predictability in the costs of the process?

The Wind Auction process appropriately balanced industry proposal preparation costs with level of assurance to Government. The process was streamlined, with the ACT Government achieving implementation cost savings compared to the 2013 Solar Auction and no unnecessary steps or requirements perceived by industry.

Some additional unexpected costs were generated for both industry and Government due to the need to make amendments to the Deed of Entitlement and Treasury Financial Guarantee (TFG), and the process could be further streamlined by engaging earlier and more closely with ActewAGL Distribution.

Proponents interviewed did not find the process excessively burdensome, particularly as they the projects were required to be at a relatively advanced stage of development so much of the work involved had already been completed, was underway, or would need to be undertaken in the near term to progress the project through other future options. The only major additional cost specific to the Wind Auction was responding to the EV3 criterion on ACT Economic Development Plans. However most Proponents appeared to understand and accept the rationale behind this requirement from the perspective of the ACT Government.

Overall, the ACT Government appears to have achieved significant efficiencies in the delivery of the process, with the level of resourcing used similar to that used for the Solar Auction and expenses falling by around 32 percent.

Under the Act, ActewAGL Distribution is required to establish an offtake arrangement with the successful Proponents of the Wind Auction in order to pay the Proponent for their FiT entitlement under the Deed of Entitlement. These costs are ultimately passed through to consumers. ActewAGL's current regulatory determination for the 2014/15 to 2018/19 period has recently been finalised with the AER. The Final Decision did not cover the current FiT program in the listed pass-through events. This does not preclude recovery by ActewAGL if it has not yet been incorporated, as they can apply for regulatory change pass-through under the NER. ActewAGL has historically been using an approved cost-pass-through system for the *Electricity Feed-in (Renewable Energy Premium) Act 2008 (ACT)*.

To simplify this aspect of the process, there is a need for early and close engagement with ActewAGL Distribution regarding their role in arranging and managing the offtake arrangement aspect of the process and the building pass through costs into their pricing forecasts for the AER.

Were governance and management practices effectively used to deliver the process and manage risks, transparency and accountability?

The proposal evaluation framework was transparent and well received by Proponents. The evaluation process was structured in a way that ensured each criterion was reviewed independently, reducing the risk of proposal bias. Furthermore, the information provided to participants was consistent throughout the process, not giving undue advantage to any Proponent.

However the process could be improved by communicating the application of qualifying criteria for non-ACR projects more clearly, and by providing a more comprehensive debriefing to unsuccessful proponents at the conclusion of the evaluation process. In addition, accountability and authority for determining scores for EV2 and EV3 criteria vested in more than one area which caused some inefficiency.

The evaluation framework comprised four weighted evaluation criteria which were scored and then compared with the proposal's FiT price to determine best value for money. The criteria and weightings were transparent and well-received by Proponents, with many Proponents commenting that they would be disappointed if any changes were made to the framework under potential future auctions as they now feel reasonably comfortable and familiar with the structure. This was based on the premise that whilst there could be improvements made regarding the interpretation of the criteria, the overarching framework was clear and aligned with industry expectations, and enabled proponents to gauge the level and direction of effort to put into their bids.

Both Proponents and panel members stated that the EV3 criterion EV3 (ACT economic development) was the most challenging to interpret, address, and assess. Specifically, interviewees raised interpretation of the Wind Auction RFP section 4.11 (which states that non-ACR proposals "will enter the bid-stack short-listing process, if the Proposal is ranked within the top 20 percent of all Proposals for its score against EV3") as being particularly unclear.

Proponents also suggested that feedback on proposals would be helpful to improve the competitiveness of their proposal and increase confidence in future releases. Unsuccessful Proponents did not receive feedback on their proposals unless they specifically requested it, and those who did found that the level of information provided was insufficient to clearly understand what aspects of their proposal were competitive or not. This was because ACT Government probity requirements limited the amount the feedback they were able to provide.

Effectiveness

Did the process stimulate an appropriate level of industry participation and competition?

The success of the 2013 Solar Auction established a high level of awareness and confidence amongst industry, and the timing of the Wind Auction was highly favourable as it was widely seen by all involved as "the only game in town".

Consequently, the Wind Auction attracted wind generation capacity at a variety of scales and locations from fifteen different Proponents, despite constraints posed by fixing project generation capacity up to 100 MW.

Proponents interviewed said that the renewable energy industry was well aware of the Wind Auction as they closely monitor government policy related to renewable energy investment and had followed the progress of the Solar Auction held in 2013. In addition, the policy and investment climate at the time of the Wind Auction meant that there were no other mechanisms in Australia for funding the development of wind, particularly given the uncertainty around the Commonwealth Renewable Energy Target (RET). According to the Clean Energy Council, only one small wind farm has reached financial close in Australia since 2013 (The Age, 2015), and between 2013 and 2014 investment in large-scale renewable energy projects fell by almost 90 percent (refer Figure 2).

Figure 2: Overall investment in Large-Scale Renewable Energy in Australia, Q1 2011- Q1 2015, USD millions (Bloomberg New Energy Finance, in RenewEconomy, 2015)



Proponents stated that this made the ACT Wind Auction "the only game in town", and as many of these projects had been in development for several years it led to a highly competitive process as reflected in the level of interest from industry and low FiT prices achieved. The initial industry briefing

attracted more than 50 attendees including prospective participants, banks, consulting firms with ultimately eighteen proposals from fifteen bidders.

Several proponents suggested that limiting the generating capacity limit of a single project to 100 MW could have affected what projects and FiT prices put forward in the auction. They said that there are a number of projects close to being ready to proceed with generation capacity of 100 to 200 MW, and that enabling them to be submitted would have significantly increased competition. However the ACT Government seeks to support a number of developers as part of their objective to build the renewable energy industry and sustain some competitive tension. Diversifying the ACT Government's large-scale renewable energy portfolio also reduces the potential impact of a successful bidder not achieving project completion.

A survey of Proponents demonstrated that nearly all would be willing to consider participating in future auction processes based on their experience with the first Wind Auction. Many Proponents spoke highly of the ACT Government's "unprecedented step to help drive the renewable energy market" and all were supportive of the reverse auction mechanism.

Was the quality of proposals consistent with Government expectations?

The majority of proposals were of high quality, providing the ACT Government with several value- for-money propositions. In particular, pre-conditions attracted projects that were "shovel ready", which meant that Proponents put forward genuine and realistic projects.

Whilst many proposals put forward strong community consultation plans under the EV2: Local Community Engagement criterion, some struggled to demonstrate strong community consultation outcomes.

The Secretariat communicated a robust evaluation framework to Proponents, clearly describing the weighting attributed to each evaluation criterion and the process by which proposals would be assessed. Proposal forms, a financial template, and guidance on expectations around Community Engagement and Economic Investment to the ACT were provided which reduced uncertainty over what Proponents had to demonstrate in their proposal. As a result, bid documentation was clearly organised and compliant, leading to consistency in the look and feel of key

sections of the bid documentation, which facilitated comparison across projects.

The requirement that development approval be highly progressed at the time of the proposal ensured that Proponents submitted well-conceived and relatively advanced projects, reducing risk to the Territory. The ACT Government therefore had a number of viable options for granting FiT entitlement across a range of scales, as reflected in the decision to grant FiT entitlements to three separate bidders².

Owing to this requirement regarding development approval, community engagement was in many cases fairly well progressed. Compared to preparing an Investment Plan for EV3, Proponents did not have the opportunity to design a strategy from scratch that would reflect the principles that the ACT Government was promoting and score well against this measure. Better-performing bids were able to describe innovative community engagement practices and/or provide evidence of broad support from a variety of affected stakeholders – such as farmers, local council, residents, community groups, or sports associations.

Proposals' scores were somewhat variable against the EV1 criterion (Risk to Project Completion), which was concerned with evaluating the extent to which risks had been mitigated or the Proponent had a strong track record of effective risk management for similar projects. However there were several proposals which scored well against this criterion to maintain sufficient competitive tension in the assessment process.

Projects outside the ACR did not proceed to full assessment if the Proponent could not demonstrate that it offered "exceptional economic development benefits to ACT renewable energy industries" and "minimises costs to electricity consumers". Bids did not proceed beyond this criterion either as a result of failing to address all four of the ACT Government's objectives, or proposing contributions that were not proportionate to the generating capacity of the project.

Advisory and sub-panel members and Proponents all stated that a particular challenge in assessing and preparing proposals was in interpreting criterion the EV3: ACT Economic Development. It appears there was an expectation that ACR-based projects would be strongly favoured in the Auction, on the

² Section 3.17 of the RfP provides that "the Minister may decide not to grant any FiT entitlements if no proposals are assessed by the Minister as offering value for money in accordance with this RfP".

basis that non-ACR proposals had to rank in the top 20 percent of all bids for EV3 in order to be shortlisted and proceed to the next stage of assessment. However many proposals located outside of the ACR offered similar or better levels of investment and innovation and therefore received an equal score for EV3 as they offered “exceptional economic development benefits” as per the requirements of the Act.

Risk assignment

The evaluation of risk assignment was based on reviewing project documentation, focusing on commercial (non-legal) issues which may affect a project’s viability. The review does not cover legal issues and does not provide any legal advice.

Some allocation of risks between power generators (Generators) and other parties occurs through the National Electricity Law and the National Electricity Rules. These will also apply for the successful Proponents.

The risk allocation between the parties in the Wind Auction is documented in the Power Purchase Documents, i.e.:

- *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011*, (No. 56 of 2011), as amended by *Electricity Feed-in (Large-scale Renewable Energy Generation) Amendment Act 2014*, (No. 7 of 2014) (the Act)
- Australian Capital Territory Wind Auction Request for Proposals, Version 5, 11 August 2014 (RFP)
- Attachment C (Draft) Deed of Entitlement Agreement under the *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011*, V3.1 (Draft Deed)

These were first reviewed against Jacobs’ commercial (non-legal) checklist for completeness for power purchase agreements. Although not all the usual components were included, no significant risks arose as a result.

The risk allocation in the Power Purchase Documents was then reviewed against normal industry practice to determine its appropriateness and effectiveness. The risk allocation was found to be generally appropriate and effective, except for four significant risks, which are summarised below.

Project development – Will the facility get built and deliver the expected quantity of wind power?

Compared to many government-run power purchase agreement auctions the obligations on the developer are not excessively onerous. However some common mechanisms are missing which would enhance protection that the project will be delivered as expected.

For instance, normally Proponents would be subject to liquidated damages if the project is delivered late, or is under-sized. Guarantees from a parent entity would also normally be required to ensure obligations are met. Sometimes the buyer has the right to ‘step in’ to the project and complete it. These mechanisms are not included in this process, and this runs the risk that auction winners may not proceed.

However these measures are considered to be excessively onerous for the auction process. Furthermore, given the success to date of the Solar Auction and the RFP requirements ensuring that proposals are at an advanced stage of development, this risk is sufficiently mitigated.

Project development – Will the facility get connected on time?

As the counter-party with the revenue payment obligation, the distributor has a disincentive to cooperate with and connect (in the case of a project based in the ACR) the Generator ahead of its other uses of resources. This poses a project development risk to the ACT Government and the Proponent.

Some protection is provided by the obligations placed on the distributor by regulatory codes governing network service operators. In addition, successful connection of at least one Generator from the 2013 Solar Auction has occurred – the 20MW FRV Royalla Solar Farm began generating in November 2014 – and this operational precedent mitigates this risk.

Feed-in Tariff – Is the FiT as competitive as possible?

Wind farms usually have a significant overseas cost component. Proponents are required to lodge a firm bid for the FiT and we understand the evaluation can take up to 10 months. Proponents are therefore exposed to currency risk, leading to a higher FiT being required. However, the process required to

mitigate this risk would effectively shift the foreign currency risk to customers which would not be acceptable to government.

Revenue security – Will the FiT be paid as expected?

There is a lack of clarity in payment details (refer to the Act, s18), which reduces the Generator's security of revenue. This may result in fewer bidders and a higher FiT being required.

The revenue under the FiT is to be paid by the electricity distributor, ActewAGL Distribution. Determining the quantity and price to be paid is unambiguous and satisfactory, as the quantity is determined by the LGCs created in relation to eligible electricity, and the price is determined by the agreed FiT and the NEM spot price. NEM prices greater than the FiT allow the distributor to recover this negative revenue from the generator, however the generator can delay the LGC value being received by not creating LGCs.

Based on the documents reviewed, only section 18 of the Act deals with FiT payment arrangements by the distributor. The distributor may have a disincentive to make these payments as it is not receiving any commensurate benefits and needs to seek recovery through the AER.

Matters not addressed in detail include:

- Method and addressee for giving the notice for payment
- The form of the notice
- 'information reasonably required'
- Any guidelines made by the Minister

A distributor could delay payments based on the lack of detail and the generator only has restitution through the court or ACT Civil and Administrative Tribunal system, which are likely to be long processes. This is a significant risk to the generator's revenue, its ability to secure project finance, and the auction process.

FiT payments due to successful bidders in the 2013 Solar Auction have been initiated, with the first occurring in November 2014 to FRV Royalla (20MW solar farm South of Canberra). This operational precedent mitigates this risk.

Recommendations

Recommendation 1: Improve method for calculating the relative cost of electricity to consumers based on proposed FiT prices

If proposals from outside of the ACR are permitted to bid for grants of FiT entitlement, the method to be applied to calculate best "value for money" proposal should be clearly documented and communicated to Proponents. Jacobs also recommends that this method includes:

- Consideration of average spot price differences and use of a forecast of average spot prices over the contract period to evaluate the impacts. Whilst this was considered under the Wind Auction, the process has not been documented
- Adjustments to the value of the proposed FiT offerings by the output weighted value impact if practical to do so or documentation of the decision to exclude it if not
- Expected MLF and DLF (where appropriate) impacts if practical to do so or documentation of the decision to exclude these if not

Recommendation 2: Reassess internal resourcing requirements associated with the auction process and administration

The greater scale and complexity of the Wind Auction relative to the 2013 Solar Auction suggests that additional resourcing may be required to ensure that Proponents are provided with timely responses to queries and that potential risks or issues that arise can either be prevented or quickly mitigated when they arise. It is estimated that the resourcing required in leading up to and during the auction process is 1.5 to 2.5 FTE.

Furthermore, resourcing associated with the ongoing administration of the FiT entitlements awarded needs to be factored into future resource planning (e.g. monitoring of compliance with requirements and Deed).

Recommendation 3: Maintain the overarching evaluation framework for future auction processes

The overarching evaluation framework comprised:

- EV1 – Risk to timely project completion (weighting: 50%)

- EV2 – Local community engagement (weighting: 20%)
- EV3 – ACT economic development benefits (weighting: 20%)
- EV4 – Reliance on Treasury Financial Guarantee (weighting: 10%)
- FiT price

Although some recommendations relating to individual components have been made, the overarching structure was well-received by industry and those involved in assessing proposals. Jacobs recommends maintaining this structure for future auctions as both industry and government have invested in understanding and applying the framework, and it has resulted in strong value for money outcomes aligned with ACT Government priorities.

Recommendation 4: Ensure alignment of the EV3 criterion with the ACT Government’s recently-released economic development strategies and clearly define “exceptional economic development benefits”

Jacobs recommends that EPD work closely with the Chief Minister, Treasury and Economic Development Directorate (CMTEDD) to determine the focus of the EV3 criterion (ACT economic development benefits) based on the recently-released *Confident and Business Ready* strategy and *ACT Renewable Energy Industry Development Strategy* (ACT Government, 2015). This may result in prioritising renewable energy skills and research over construction jobs associated with the development of large-scale renewable facilities.

These documents should also be used to develop some methods or approaches to provide a more objective way to assessing renewable energy industry economic development benefits and to enable a simpler comparison of the Economic Investment Plans submitted by Proponents (e.g. standard assumptions around the value of jobs that could be generated or supported by projects).

This process should also involve providing greater clarification and guidance on the interpretation of “exceptional economic development benefits to ACT renewable energy industries” as per section 11 of the Act. Communicating this guidance to industry will be critical in building their confidence to bid and in evaluating the competitiveness of proposals. However it is also important that the definition of exceptional economic development benefits does

not become overly prescriptive, as this would constrain innovation by proponents.

Recommendation 5: Create one area of responsibility and accountability for scoring proposals

The skills and knowledge of the advisory sub-panels should be utilised to conduct deeper analysis into the relative benefits and risks associated with local community engagement practices and outcomes, and ACT economic development commitments, including work to validate or verify relevant claims put forward in the proposals where necessary. However as the Advisory Panel is ultimately accountable for scoring and recommending proposals to the Minister, there may be efficiencies and greater transparency in assigning the responsibility for scoring criteria solely to the Advisory Panel.

Recommendation 6: Provide feedback on proposals and / or process outcomes to all Proponents

Providing feedback on proposals to both unsuccessful and successful proponents will increase transparency of the outcomes and potentially improve the quality and competitiveness of future auction processes. To mitigate risks to the ACT Government and ensure probity, a standard written briefing could be provided to all Proponents that clearly states why the successful proposals were selected and some common pitfalls or areas of improvement for all Proponents to consider.

Recommendation 7: Clarify FiT payment arrangements by the distributor

A distributor could delay FiT payments based on the lack of detail provided through the existing legislation. The generator only has restitution through the court or ACT Civil and Administrative Tribunal system, which are likely to be lengthy processes. This is a significant risk to the generator’s revenue, its ability to secure project finance, and the auction process.

FiT payment arrangements could be further clarified by addressing:

- Method and addressee for giving the notice for payment
- The form of the notice
- ‘information reasonably required’
- Any guidelines made by the Minister

Recommendation 8: Consider releasing further wind generation capacity within the next six months

On 23 June 2015 the Senate passed the Renewable Energy (Electricity) Amendment Bill 2015, which reduces Australia's Large-scale Renewable Energy Target (RET) from 41,000 to 33,000 GWh in 2020 (Commonwealth of Australia, 2015). This is likely to alter the momentum in the market by (a) increasing the supply of wind farm development funding options, and (b) potentially attracting greater investment in wind farm development to Australia. Other jurisdictions including Queensland and Victoria have also expressed interest in using the reverse auction mechanism for funding large-scale renewable energy developments. This may reduce the competitiveness of the ACT's wind auction process, so Jacobs recommends releasing the next wind auction within the next six months.

This timing is also important for progress towards the ACT Government's target of 90 percent renewable energy supply by 2020, as it can typically take around two years from award of the power agreement to successful connection and supply to the grid.