

ACT WIND AUCTION II REVIEW

Summary Report

ACT Wind Auction II Review

Commercial-in-Confidence

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1.0 Introduction

The *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011* (the Act), passed on 8 December 2011, enabled the Australian Capital Territory (ACT) Minister for the Environment and Climate Change to release 200 MW of feed-in tariff (FiT) capacity. This capacity was available for wind generation through a competitive process known as the ACT Wind Auction II (the Auction), which ran between 10th August 2015 and 14th October 2015. The two winners of a FiT entitlement were the:

1. 100 MW Hornsdale Wind Farm Stage II in South Australia developed by NEOEN, announced on 17 December 2015;
2. 100 MW Sapphire Wind Farm 1 in New South Wales developed by CWP Renewables, announced on 4 March 2016.

The ACT Environment and Planning Directorate (EPD) commissioned AECOM to conduct an independent review of the Auction as required under subsection 22(1) of the Act. The objectives of this review were to determine whether:

- The Auction process was efficient and effective
- Risk allocations were appropriate between proponents and the Territory
- Value for money outcomes were obtained
- The following objectives of the Act were fulfilled to:
 - 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 and other places;
 - b. promote the development of the renewable energy generation industry in the ACT and Australia consistent with the development of a national electricity market;
 - c. reduce the ACT's contribution to greenhouse gas emissions and help achieve targets to reduce the ACT's greenhouse gas emissions;
 - 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.

This report has the following sections:

- Section 1 provides an introduction to this review
- Section 2 describes the Auction process
- Section 3 evaluates the effectiveness and efficiency of the Auction process
- Section 4 evaluates the appropriateness of the risk allocation of the Auction process
- Section 5 evaluates whether value for money outcomes were obtained
- Section 6 evaluates whether the objectives of the Act were fulfilled
- Section 7 summarises the conclusions and recommendations of this review
- Section 8 lists the references used.

1.1 Review Methodology

The review of the ACT Wind Auction II was informed by a desktop review and analysis as well as a stakeholder consultation process.

The purpose of the desktop review was to assess issues identified during the tender and evaluation process. This involved a review of the relevant ACT legislation, the Auction Request for Proposal (RFP) documents and parts of the submissions and evaluation documents. The desktop review also provided a basis for developing questions for the stakeholder consultations.

Subsequently, AECOM conducted 26 face-to-face and telephone interviews with key stakeholders to obtain feedback on the process.

Having completed the desktop review and the stakeholder consultation process, the results were analysed to determine the overall conclusions to the questions in Figure 1, which address the objectives of this review. Finally, recommendations were developed for the review.

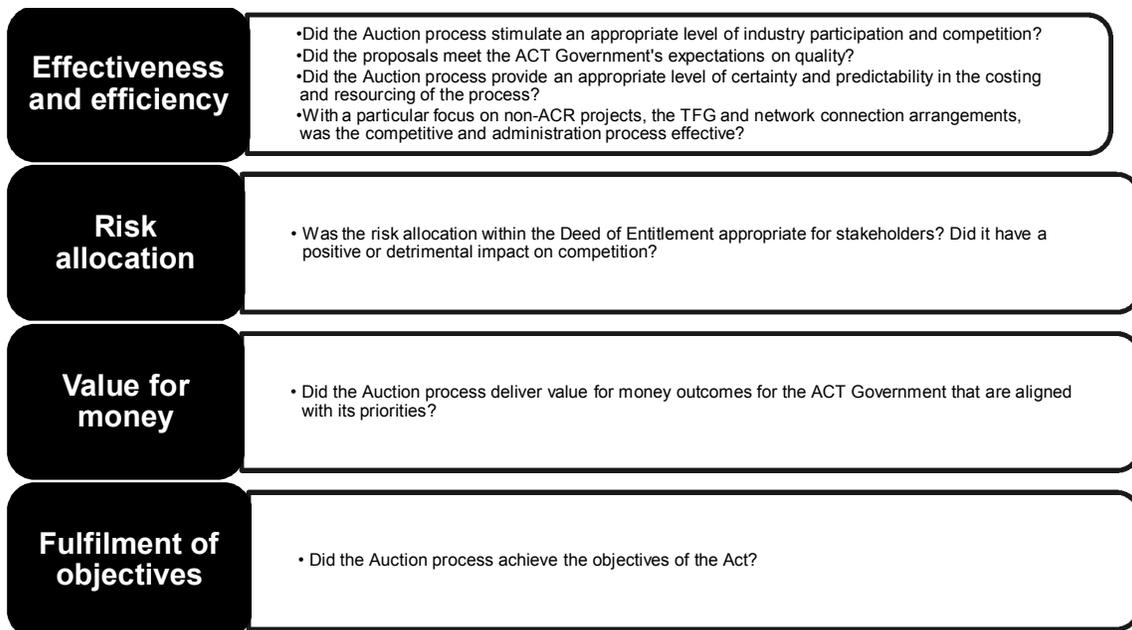


Figure 1 Key questions of the review

1.2 Project Assumptions

As per the project scope requirements, the review focused on the ACT Wind Auction II process only. However, comparisons were made with previous ACT renewable energy auctions where relevant.

2.0 ACT Wind Auction II Description

2.1 Documentation provided

Following the Minister’s release of the 200 MW of FiT capacity, the Secretariat released the RFP documentation that detailed the auction process and outlined the eligibility and evaluation criteria. Documentation provided to those that registered interest in the ACT Wind Auction II included:

- Wind Auction II RFP v4.0
- Attachment A – Wind Auction II Proposal Form
- Attachment B – Financial model template v1.0
- Attachment C – Draft Deed of Entitlement v3.1a
- Attachment C – Draft Deed of Entitlement v3.1b – Group and Trust Structure
- Attachment D – Renewable Energy Local Investment Framework v1.0
- Attachment E – Best practice community engagement in wind development v1.0
- ActewAGL Distribution Large Scale Renewable Generation Settlement Procedure – Aug 2015
- Wind Auction II Questions and Answers
- Wind Auction II Industry Briefing Presentation #2
- Renewable Energy Roadmapping Workshop Outputs – Opportunity Worksheets.

2.2 Requirements of participation

The Auction targeted new wind farms with a generation capacity between 15 MW and 100 MW. It was a reverse auction process that aimed for competitive and innovative proposals. Proponents were required to submit a proposal in accordance with the RFP documentation and offer a firm, fixed and flat FiT price for a 20 year period.

The process for evaluating the proposals is summarised in Figure 2.

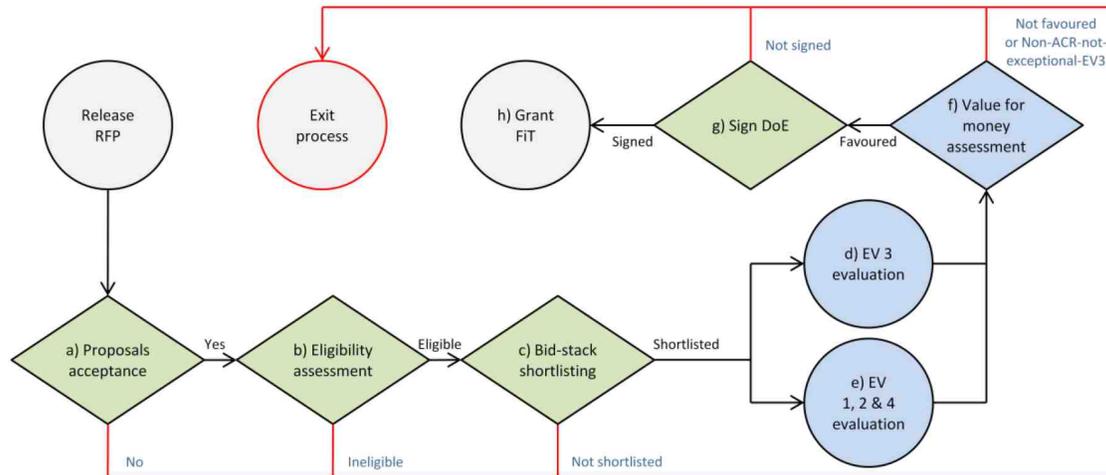


Figure 2 ACT Wind Auction II proposal evaluation process

2.2.1 Eligibility Criteria

Figure 3 provides the proponent and proposal eligibility criteria used to complete the eligibility assessment:

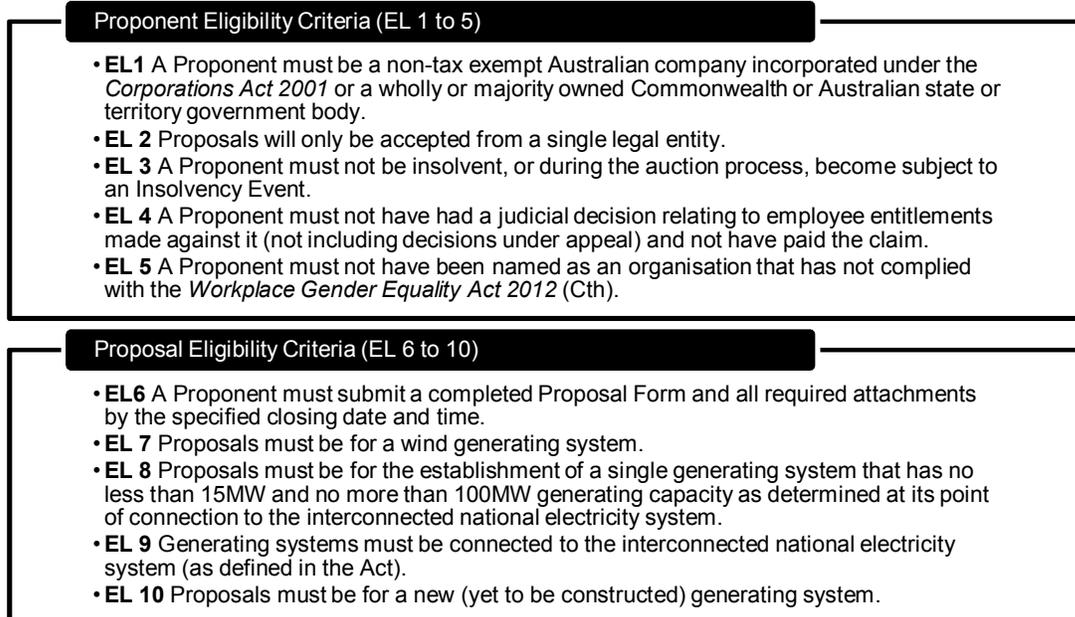


Figure 3 Eligibility criteria

2.2.2 Project location

The Auction not only sought wind farms located in the Australian Capital Region (ACR) but also wind farms outside the ACR (and connected to the NEM) provided they satisfied additional threshold criteria in Section 11 of the Act, which states:

“If the Minister is satisfied that the person’s proposal –

- i. Offers exceptional economic development benefits to ACT renewable energy industries; and*
- ii. Minimises costs to electricity consumers”*

2.2.3 Multiple proposals

Proponents were able to submit more than one proposal provided they were mutually exclusive. That is, two alternative generating systems could not be proposed on the same area of land if only one of the generating systems was intended to be implemented. Multiple proposals would be evaluated independently and if successful, a separate grant of FIT entitlement would be awarded.

2.2.4 Bid-stacking

All eligible proposals were initially ranked by FIT price from lowest to highest and shortlisted on the basis of this ranking. This was done to allow the Advisory Panel to focus on the proposals with the lower FIT prices. It was also to efficiently manage the resources used in the assessment of the proposals whilst completing the process as early as possible.

2.2.5 Evaluation criteria

The Auction RFP documentation provided guidance on each of the below Proposal Evaluation Criteria (EV 1 to 4) by outlining the requirements of the ACT Government (Territory).

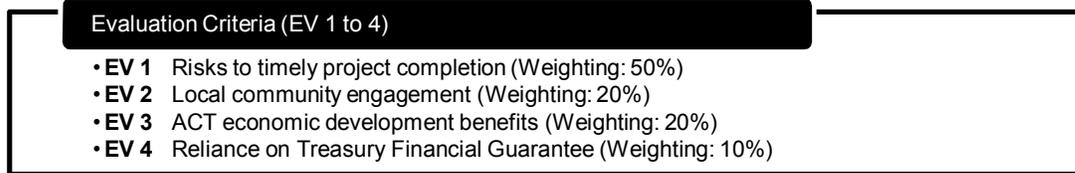


Figure 4 Evaluation criteria

The Advisory Panel used the evaluation criteria to evaluate and score the shortlisted proposals and to compare against the FIT price in order to perform the value for money assessment.

2.2.6 EV4: Treasury Financial Guarantee

As per ACT Wind Auction I, proponents could propose the extent of their reliance on the Treasury Financial Guarantee (TFG) by proposing a year 1 Proposed Guarantee Cap Multiplier (PGCM) between \$0 and \$1,230,000 per MW AC of generating capacity. The RFP documentation noted that proposals that were not reliant on the TFG or that minimised the extent of their reliance would be favoured. This was further explained in the RFP as follows:

“A Proponent that proposes a PGCM of \$1,230,000 will be granted the lowest possible score against this criterion (i.e. 0/10) while a Proponent that proposes a PGCM of \$0 will be granted the highest possible score against this criterion (i.e. 10/10). Scores will be rounded to the nearest single decimal place.”

2.3 Conditions of Entitlement

The Act provides the Minister with the authority to impose conditions on a FiT entitlement such as requiring successful proponents to implement their proposals and achieve key milestones within the timelines noted in their proposals. These conditions are set out in the Grant of Fit Entitlement and the Deed of Entitlement (DoE), which successful proponents enter into with the Territory, without variation. Successful proponents gain the FiT entitlement and right to receive FiT support payments provided they meet their obligations under the Act and the DoE. Other key conditions of the DoE require successful proponents to:

- create and transfer to the Territory Large-scale Generation Certificates (LGCs) for all eligible electricity generated by the wind farm for a 20 year period;
- register the proposed wind farm as a GreenPower Generator under the National GreenPower Accreditation Program Rules;
- be responsible for arranging their own network connection and registering with AEMO to sell on the spot market;
- be responsible for arranging their own access to land for the wind farm; and
- be responsible for obtaining any necessary authorisations or approvals required to deliver their proposal in accordance with applicable laws and policies such as development approvals.

3.0 Effectiveness and Efficiency

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

The ACT Wind Auction II stimulated a high degree of industry participation and competition. The main reasons for the high engagement levels were the lack of available power purchase agreements for renewable energy projects, the confidence in the Auction process by the proponents and financiers and the attractive 20 year tenure of the FIT from a counter party with a strong credit rating.

The state of the renewable energy market at the time of the ACT Wind Auction II was very much a buyer's market. Whilst the Renewable Energy Target (RET) was settled at 33,000 GWh and confirmed on 23 June 2015, at the time of the RFP being issued, it was becoming evident that electricity retailers (RET liable entities) were not offering power purchase agreements acceptable to equity and debt providers. Figure 5 shows the total new clean energy investments in Australia for each quarter between 2012 and 2016. Since 2014, investment has remained low and the majority of investments have come from residential and commercial rooftop solar PV.

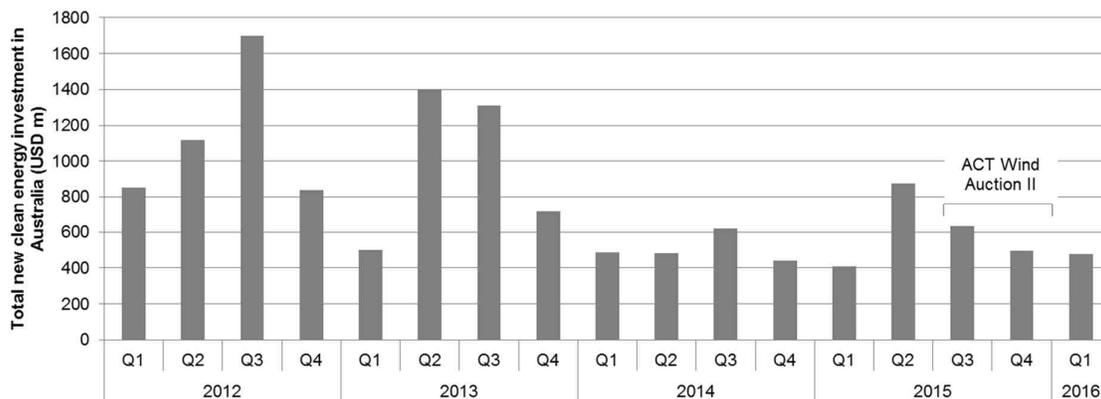


Figure 5 Total new clean energy investments in Australia (in USD millions) [1]

The Auction was highly attractive to wind energy proponents because it offered a 20 year FIT along with a counter party (the Territory) having a very strong credit rating. The Territory also has a successful track record for the delivery of wind projects from the previous ACT Wind Auction I. The Advisory Panel considered there was a sufficient number of proposals to secure competitive pricing and value for money for the whole 200 MW of released capacity. Additionally, there was increased competition compared with the ACT Wind Auction I. Table 1 shows the Auction weighted FIT price is lower than the ACT Wind Auction I, where the weighted FIT price is the sum of the winning FIT prices proportioned to their corresponding annual generation. In addition, the winning Auction prices were well below the maximum values noted in the previous auction and AECOM's report *Pathway to Wind Power Development in the Australian Capital Region*.

Table 1 Comparison of winning FIT prices

<i>Pathway to Wind Power Development in the ACR report</i>						
		ACT Wind Auction I		ACT Wind Auction II		
FIT Prices (\$/MWh)	Project	FIT Price per project (\$/MWh)	Annual Generation per project (MWh/yr)	Project	FIT Price per project (\$/MWh)	Annual Generation per project (MWh/yr)
\$85 to \$100 (mid-2014 pricing)	Coonooer Bridge Wind Farm	\$81.50	81,000	Hornsedale Wind Farm II	\$77.00	404,066
	Ararat Wind Farm	\$87.00	271,000	Sapphire Wind Farm I	\$89.10	349,703
-	Hornsedale Wind Farm I	\$92.00	414,000	-	-	-
-	Weighted FIT price	\$89.12	-	Weighted FIT price	\$82.61	-

3.1.1 Administration process

In the lead up to the Auction, the Secretariat conducted an industry briefing session that provided all relevant stakeholders with an opportunity to discuss the Auction. As the auction process mostly replicated the earlier ACT Wind Auction I, proponents interviewed indicated that they were familiar and in general, comfortable with the Auction process. Proponents were also aware of the number of proposals submitted in the previous auction and the awarded FiT prices, which encouraged proponents to submit competitive tenders.

The administration process was supported by the ACT Government and authorised by the ACT Minister for the Environment and Climate Change. This firm level of support demonstrated to the renewable energy industry that there was strong and serious commitment to achieve positive outcomes. Proponents interviewed indicated they had confidence in a known and well administered process that would reach an outcome.

During the Auction tender period, the Secretariat provided proponents with similar documentation to the previous auction, which clearly set out the tender and evaluation process. Additional information was provided on ActewAGL Distribution's settlement procedure and more guidance was provided on EV3 ACT economic development benefits and EV4 Reliance on the Treasury Financial Guarantee. This extra guidance stimulated competition as it provided more information on what would be valued by the Territory. As per previous auctions, there was also transparent communication in the form of the questions and answers document between the Secretariat and those who had registered interest in the process.

In conclusion, it's clear that the Secretariat administered the Auction in an organised and transparent way that gave proponents confidence in the process. No recommendations are provided on the administration process.

3.2 Did the proposals meet the Territory's expectations on quality?

The Auction process was effective in generating high quality proposals and providing a number of competitive advanced stage projects. The Advisory Panel noted that the overall quality of proposals improved from ACT Wind Auction I but perhaps could have been more innovative in EV2 and EV3. To encourage even greater quality proposals, opportunities were identified by stakeholders relating to the provision of best practice and leading edge community engagement examples.

The section below focuses on the quality of the proposals against the eligibility criteria (EL) and the shortlisted proposals against the evaluation criteria (EV). Note that Section 5.0 assesses the two winners of the ACT Wind Auction II.

3.2.1 Eligibility Criteria (EL)

The Secretariat clearly communicated the proponent and proposal EL within the RFP documentation by providing the Territory's detailed requirements. Proponents interviewed agreed that the Territory's expectations were clear and noted that the technical requirements of the eligibility criteria were not too onerous.

3.2.2 EV1: Risks to timely project completion

EV1 was an important factor in the evaluation of proposals and was allocated a 50 per cent weighting of the total score as the Territory has a strong interest in selecting proposals that will deliver a successful outcome. The Territory's expectations were clear to proponents and aligned with typical wind energy project development processes. Proposals needed to demonstrate that risks to project completion were effectively mitigated or the proponent is an experienced wind developer and has demonstrated effective risk management on similar projects. The Advisory Panel indicated in the consultation process that the proponents in general did provide sufficient information in their submissions to allow effective evaluation of the proposals.

3.2.3 EV2: Local community engagement

Proactive local community engagement is crucial for a successful wind farm development and is a risk to not only the proponent but also to the Territory. By incorporating community engagement requirements into the EV and by providing information on best practice guidelines, the Territory has shown it gives a high priority to delivering positive community outcomes and benefits. An important addition to the Auction sub-criteria noted in the RFP documentation was the requirement to provide evidence of community support. This provided the Advisory Panel with a more complete narrative of the project and allowed them to link the historical context with the intent of the project's present and planned local community engagement process. For example, the EV2 sub-panel members sought to verify and distinguish between non-local and local community opposition. This was important to determine the effectiveness of the project's local community engagement.

According to the Advisory Panel, the proposals varied in performance against the community outcomes detailed in the best practice guidelines; inform and consult, involve or collaborate and empower. The Advisory Panel noted that they would have liked to see more innovative proposals. Proponents were generally of the opinion that the Territory's expectations were clear. However, some proponents felt that some projects that have been under development for extensive periods of time (some over 10 years) were disadvantaged due to the rising expectation on local community engagement by Governments, the wind industry itself and the broader community. The Advisory Panel acknowledged that best practice community engagement expectations are continuously increasing both internationally and nationally. However, there is still the expectation for advanced stage projects to aim for best practice. As such, it is recommended the Secretariat share more examples of best practice and leading edge community engagement prior to or as part of future auctions in order to strive to increase the quality of proposals.

3.2.4 EV3: ACT economic development benefits

Compared to ACT Wind Auction I, there was a greater degree of consistency amongst the proposals in terms of structure, quantification and a descriptive narrative, which made it easier to evaluate. Most proponents did seek to address the initiatives noted in the outcomes of the Renewable Energy Road Mapping Workshop held on 20 August 2015. However, the Advisory Panel would have liked to see more innovative proposals.

Amongst the proponents interviewed, there were varying degrees of clarity around the Territory's expectations. Proponents wanted to develop initiatives that would meet the specific needs of the ACT and have the greatest impact. Proponents noted that the quality of their offers could improve with greater direction from the Territory. Some proponents suggested a more prescriptive initiative should be presented and commended the Territory for specifying the energy storage contribution in the Next Generation Auction. The Advisory Panel acknowledged that there is a fine line between providing clear direction and guidance to proponents whilst allowing for innovation. It is understood that the Territory would find it difficult to provide further definition without making the criteria overly prescriptive. The Advisory Panel emphasised that for EV3 proposals, there was a clear and firm desire to obtain sustainable long term commitments that made business sense to proponents rather than short term direct capital injections to the ACT.

3.2.5 EV4: Reliance on Treasury Financial Guarantee

The Proposed (Year 1) Guarantee Cap Multiplier (PGCM) was scored from ten to zero according to the amount of reliance required by the project from \$0 to \$1.23 million per MW AC, respectively. This created a competitive platform for proponents and their financiers to determine what they could offer and incentivised project's to limit the Territory's liability. Various levels of reliance on the TFG were offered. However the majority of proponents were not in a position to reduce their PGCM reliance mainly due to increased risk to the project's bankability.

3.3 Did the Auction process provide an appropriate level of certainty and predictability in the costing and resourcing of the process?

Stakeholders interviewed said there was an appropriate level of certainty and predictability in the costing and resourcing of the process. Stakeholders interviewed considered the Auction was efficient and effective particularly for those that submitted proposals in ACT Wind Auction I.

Due to the learnings gained from the ACT Wind Auction I, the majority of stakeholders were clear on their roles and responsibilities. Most stakeholders found their actual internal costs, timing and resourcing of the process met their initial expectations. As a result, the Auction was perceived by industry as a smoother process than ACT Wind Auction I.

Proponents commended the Territory for repeating a known and effective process so that proposals used in the ACT Wind Auction I could largely be used as a template for the Auction. As such, a majority of proponents indicated that the additional time received due to the change in submission due date from 30 September 2015 to 14 October 2015 was not required. The reason for the extension was to provide proponents with more time to submit potentially more competitive proposals, which some proponents welcomed to allow them to refine their pricing and proposal.

Notwithstanding the efficient and effective process, the following recommendations are made to further refine the Auction process and provide even greater levels of certainty and predictability.

In the lead up to the release of the ACT Wind Auction II, there was an increased level of communication between the relevant stakeholders. In particular, ActewAGL Distribution commended the Secretariat's co-operative

approach. Over regular meetings, a good understanding of the settlement process was established which led to further transparency as demonstrated by the additional information in the RFP documentation. Whilst the auction process can now be considered to be established, the continuation of regular communication between the Secretariat and relevant stakeholders will be important. As such, it is recommended the Secretariat maintain regular dialogue with relevant stakeholders including ActewAGL Distribution, the Advisory Panel and sub-panel members. It will be particularly important in the lead up to future auctions to ensure resources are available and to allow time for further fine tuning.

To improve the efficiency of the evaluation of submissions, the Advisory Panel suggested that the terms of references for the external technical consultants and financial consultants could be better defined to minimise some overlap in evaluation. In addition, the consistency of EV2 supplied information varied in relation to how proponents introduced and described the wind farm's local community. For example, contextual information such as the number of people in the community, the main townships, the distances between the wind turbines and residents and other wind farms in the area. The Advisory Panel suggested that a pro-forma be incorporated into the RFP documentation to improve the consistency of information provided. The intent of this prescribed information is to allow the EV2 sub-panel members to understand the context quicker and verify information with greater ease. The information requested in the pro-forma will not include commitments within the *Community Engagement Plan*. It is unlikely to impact how proponents develop commitments and maintains flexibility for innovation. As such, it is recommended that a pro-forma for introducing the wind farm's local community context be incorporated into the RFP documentation.

The financiers interviewed, having experienced multiple ACT auctions, noted that the ACT Government's expectations have become clearer on what level of evidence is required to demonstrate project bankability to the Advisory Panel. The Territory needs a certain level of comfort that a project will achieve financial close and the firmer the commitments, the more favourable it was considered, as stated within the RFP documentation, section 5.26 b) i:

"Proposals that have firm commitments with regard to project financing, or are able to provide other evidence of their bankability, will be favoured."

However, there was still some uncertainty as it was difficult for financiers, given their onerous and detailed approval processes, to provide firm commitments as required by the Auction RFP. Financiers indicated that they can provide proponents with various levels of commitment, covering a range of increasing levels of analysis and approval. A firm commitment to a financier is typically defined as the highest level of approval and the lowest risk level to timely project completion. However, firm commitments from financiers in an ACT type reverse auction is not typically feasible for a number of reasons but mainly due to multiple proponents seeking financier commitments in addition to the highly confidential nature of the auction (proponents not willing to divulge detailed pricing models). Financiers suggested that the Territory could clarify what level of commitment the Territory required at certain stages of the Auction process. For example, a letter of support with terms and conditions could be provided with the proposal and a firm bank commitment could be provided after FiT entitlement. As such, it is recommended the expected level of financial commitment for EV1 be clarified.

Whilst there was an appropriate level of certainty and predictability in the process, unsuccessful proponents noted that the feedback provided was not very useful in providing clarity on where to improve. In addition, some proponents expressed reservations about submitting into further auctions due to the uncertainty of knowing what is required to provide a winning bid. This could be compounded in the coming months if the power purchase agreement market improves for renewable energy projects as it is expected to do. Acknowledging that the Auction is a process that requires competition, depending on how many future auctions are planned, it may be worthwhile considering the provision of more detailed feedback and potentially face to face meetings with proponents to try to increase the quality of future submissions and their confidence in the process. As mentioned earlier, this will be particularly important if the wind energy market becomes more active as more power purchase agreements are offered to proponents. It is also understood that the Territory may be exposed to some legal risk associated with providing feedback that is too detailed. With this in mind, it is recommended that the Territory review their feedback process to identify what further detail could be provided.

3.4 With a particular focus on non-ACR projects, the TFG and network connection arrangements, was the competitive and administration process effective?

The competitive and administration process was effective in obtaining satisfactory non-ACR proposals as the two awarded proposals were outside of the ACR. In addition, stakeholders were generally of the opinion that the Treasury Financial Guarantee and permitted network connection arrangements were adequate. Opportunities were identified by stakeholders relating to connection and metering flexibility and continued discussion with financiers.

3.4.1 Satisfaction of the RFP's 'special conditions for projects outside of the ACR'

As noted in Section 2.2.2, wind farms located outside of the ACR had to satisfy additional threshold criteria including offering exceptional economic development benefits to ACT renewable energy industries and minimise costs to electricity consumers. Non-ACR proposals that did not meet the criteria were no longer considered in the Auction.

The RFP described how non-ACR proposals would be assessed to minimise costs to electricity consumers. A non-ACR proposal satisfied this criterion if it was shortlisted through the bid-stack shortlisting process and on the basis of a value for money assessment of the proposal.

The RFP provided guidance on EV3 that was applicable to all proposals. Subsequent to the ACT Wind Auction I, additional information was provided prior to the Auction and during the Auction, which some proponents found helpful. This included key expectations during the industry briefing presentation, illustrative examples of initiatives that were valued highly as part of the previous wind auction within the RFP and an addendum of the Renewable Energy road mapping workshop outcomes.

However, the majority of proponents considered the ACT Government's expectations for EV3 to be unclear as noted in Section 3.2.4. This may be in part due to the RFP not defining 'exceptional'. Yet, it is understood that this could not be defined in order to stimulate creative and innovative proposals. The competitive and administrative process was effective in gaining non-ACR proposals that satisfied the RFP's special conditions.

3.4.2 Adequacy of the Treasury Financial Guarantee and payments

The Auction process required proponents to nominate a Proposed (Year 1) Guarantee Cap Multiplier (PGCM) between \$0 and \$1.23 million per MW AC as part of EV4: Reliance on Treasury Financial Guarantee and were scored based on their level of reliance. All stakeholders surveyed agreed that it was a simple and easy to understand concept and created another area of competition.

The proponents interviewed indicated that the level of reliance depended on a range of factors including the project size, FiT price and the risk appetite of equity and debt providers. Proponents indicated that the maximum TFG value was reasonable for their debt providers however, it was not sufficient to cover equity. Even though a higher TFG was preferred, the number of proponents who bid into the Auction indicated that the TFG was adequate. For the Territory, the maximum value was considered large enough to minimise the risk of the repeal or amendment of the Act. However, the Secretariat did note that the maximum value was not updated for this Auction and that potential adjustment of the TFG may not be favourable to proponents and financiers.

As for the Deed of Entitlement clauses related to payments on repeal or amendment of the Act, proponents and financiers interviewed noted that the linear decline of the TFG was a simple concept to understand. Linear decline of the TFG meant that the TFG would linearly reduce to \$0 in the year following the last year of the 20 year FiT Entitlement period. It was considered adequate by proponents and financiers interviewed but could be further improved with greater consultation with financiers. It is recommended that the Territory continue the discussion and further consult financiers on the overall process and the Deed of Entitlement to minimise any further bankability risks. For example, some financiers interviewed noted that the linear profile did not match typical debt repayment profiles.

3.4.3 Network connection arrangements

The network connection arrangements that were permitted in the Auction and in the Deed of Entitlement (DoE) were considered reasonable by proponents interviewed. Most of the requirements in the RFP documentation and DoE were not specific to the ACT Wind Auction II process. They aligned with the National Electricity Law and National Electricity Rules and the Territory passed on the approving authority to the Australian Energy Market

Operator (AEMO) or the network service provider. By aligning with typical grid connection processes, the Territory's scope remained within its capabilities and required minimal resources to administer the process.

One of the requirements that was specific to the Auction has the potential to provide an opportunity for the Territory to receive lower FiT prices. It was noted by proponents with wind farm capacities greater than 100 MW, that lower grid connection costs could potentially be achieved if more detail on connection and metering flexibility was provided in conjunction with EL8, which states:

“Proposals must be for the establishment of a single generating system that has no less than 15 MW and no more than 100 MW generating capacity as determined at its point of connection to the interconnected national electricity system.”

For wind farms with capacities greater than 100 MW, there are various ways of distinguishing the electricity generated from the 100 MW Auction capacity from the remaining wind farm capacity. The RFP generally led proponents to propose a conservative and more expensive solution that focused on the grid connection point rather than the metering point. As such, there was uncertainty amongst proponents interviewed around how flexible the Territory would be towards a technically sound solution that would also lower grid connection costs and ultimately the FiT price offered.

It is understood that the integrity of the metering data from the ACT portion is important to the Territory. This clarification and further detail on metering flexibility could allow proponents to potentially offer the Territory a technically sound solution with certainty. This has the potential to lower the cost of the grid connection and therefore decrease the offered FiT price. As such, it is recommended that more detail on grid connection and metering flexibility be provided in ActewAGL Distribution's Settlement Procedure document that was circulated to all parties that registered interest in the Auction.

4.0 Risk allocation

4.1 Was the risk allocation within the Deed of Entitlement appropriate for stakeholders? Did it have a positive or detrimental impact on competition?

The risk allocation within the Deed of Entitlement strongly favoured the Territory and was considered appropriate for stakeholders. Opportunities to potentially reduce the FiT price through risk re-allocation or further risk mitigation were considered in the below sections.

4.1.1 Repeal or amendment of the Act

The Deed of Entitlement expressly highlights the potential risk for the repeal or amendment of the Act. Some of the key impacts of this risk include project bankability and long term economic development benefits for the ACT.

To address potential challenges with project bankability, the Territory took steps in 2013 during the Regular Stream of the Solar Auction process and offered proponents a TFG in order to share the risk between the Territory, proponents and their financiers. Most proponents and financiers consulted during this review considered the measure to be reasonable in providing a certain level of reliance on the TFG to make the Deed of Entitlement bankable.

The scoring of EV4 was designed to incentivise proponents to select a low PGCM. This was achieved to a certain extent with reduced PGCMs being offered. However, it is also important to consider the risks to the Territory associated with a reduced PGCM as it has implications on project delivery relating to the achievement of financial close. Whilst it was the proponent's risk to select their level of reliance, it is important to note that financiers could not provide the full extent of their advice to proponents without knowing the full details of their project. Due to probity issues, financiers most likely did not have visibility of FiT prices offered or the PGCM nominated so the financial risks associated with those choices may not be known to the Advisory Panel or the proponent. As such, it was appropriate that the evaluation against EV1: Risks to project completion did consider together the project's bankability and the nominated PGCM in EV4. This would assess the proponent's capacity to take on the full risk of the repeal or amendment of the Act and achieve financial close. Therefore, no changes are recommended in the evaluation of this aspect.

As for the long-term economic development benefits to the ACT, the implications of a repeal or amendment of the Act need to be considered in order to minimise the impacts to the ACT. The TFG will most likely only cover a project's debt and so the continuation of the project and long term economic development benefits to the ACT are unknown. The Territory has endeavoured to minimise this risk by evaluating proposals that make business sense to the proponents and show clear evidence of planned early implementation in order to select mutually agreeable initiatives. There is also a dedicated team within ACT EPD for monitoring the implementation of the initiatives.

Whilst the chances of a repeal or amendment of the Act may be low, it may be worthwhile sharing the responsibility for monitoring the initiatives across multiple directorates such as the Economic Development Directorate. Other directorates may have visibility of progress, however, shared responsibility and resourcing may provide greater links with the Territory's broader priorities around economic development to increase the resilience of the wind auctions and also ensure there are no overlaps in scope.

4.1.2 Foreign exchange rate and interest rate risk

During stakeholder consultations, proponents were asked to consider what risks (if any) could be re-allocated to the Territory to potentially allow for the reduction of the tendered FiT price. The foreign exchange risk and interest rate risk were raised by proponents. For example, during the bid review process, some of the foreign exchange rates were in favour of a lower FiT price. It was acknowledged by all stakeholders that these rates are subject to movement, and depend on a range of factors including the project currencies used. As such, the result could favour either party regardless of who owns the risk. Various currency movements over the Auction period are shown in Figure 6 below.

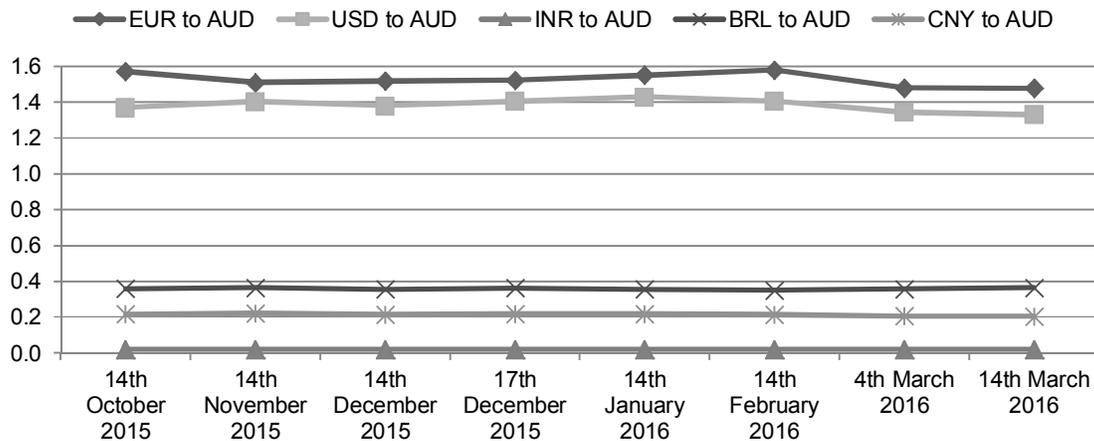


Figure 6 Foreign exchange rates between the Auction submission date and announcement of winners [2]

The Secretariat noted that various mechanisms for sharing foreign exchange risk (for example, seeking adjusted FiT prices during the tender negotiation phase) were considered, however various resourcing requirements were needed to implement the mechanism. The Secretariat preferred the proponent's to own the risk and maintain the simple review process of the FiT price. Notwithstanding the risk of foreign exchange and interest rate movement, it should also be noted that the Auction has achieved the cheapest known wind energy prices in Australia. This is a very successful outcome for the Territory.

Proponents indicated that it is standard industry practice for them to own the foreign exchange and interest rate risk for a certain period of time. However, they noted that this risk allocation was appropriate for a certain period of time of around two to three months between the submission date and the announcements of the winners. Whilst various factors impact the announcement of the winners, proponents noted they owned a potentially unlimited risk. As such, it is recommended that the time period between the submission date and the announcement of the winners be reviewed thoroughly and where possible, to minimise delays, avoid the Christmas/New Year period.

4.1.3 Spot price

Proponents were required to nominate a fixed FiT price for the 20 year FiT period as part of their proposal. Successful proponents receive FiT support payments using the following formula as detailed in the Act, *Part 4 Section 17A Meaning of the Fit Support payment*:

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

SP means the spot price value for the FiT entitlement holder's eligible electricity for the period. This will be the Regional Reference Node Spot Price within the NEM Region that the generator is located within.

Quantity of electricity means the quantity of the FiT entitlement holder's eligible electricity for the period.

As indicated by the formula, the Territory owns the risk of the spot price. The spot price is subject to movement from various factors outside the Territory's control and varies from region to region. The Territory is aware of the differences in spot prices between the NEM regions and has relied on forecasts developed by specialists to gain comfort around the potential worst case scenarios. Forecasts prepared by specialists (as in the case of those used by the Territory) are preferred over historical trends of the spot price as the market continuously changes and can also be influenced by the delivery of awarded projects themselves. As such, these steps are considered to be a reasonable approach.

5.0 Value for money

5.1 Did the Auction process deliver value for money outcomes for the Territory that are aligned with the Territory's priorities?

The Advisory Panel was of the opinion that the evaluation process provided flexibility and sufficient information from consultants and sub-panels, to allow them to make informed decisions on value for money outcomes for the Territory. In addition, the weightings of the evaluation criteria were still considered to be appropriate in communicating the priorities of the Territory as described in the below sections.

Value for money was determined by comparing the proposal's FIT price to its assessed performance against the four evaluation criteria. The below sections describe how the winners performed against each criterion followed by the Advisory Panel's value for money assessment.

5.1.1 EV1: Risks to timely project completion

The successful proponents achieved the highest scores in EV1 as they demonstrated the lowest project completion risks.

It should also be noted that this Auction applied the same weightings and sub-criteria as ACT Wind Auction I. The winners of the ACT Wind Auction I have progressed well to date. Coonooer Bridge Wind Farm has been generating electricity since February 2016. Hornsdale Wind Farm Stage I and Ararat Wind Farm are both well progressed in construction. As such, it is reasonable to draw the conclusion that the success of the ACT Wind Auction I selection suggests this Auction process will likely also result in timely project completion.

5.1.2 EV2: Local community engagement

The Territory has a direct interest in promoting good community engagement processes and outcomes for projects involved in the ACT Wind Auction II and the successful proponents were assessed to have the lowest risk by demonstrating a high level of positive community support, and providing a detailed *Community Engagement Plan*.

The Territory is aware of its reputational risk in funding a wind farm that does not have positive local community support and thus the inclusion of local community engagement with a 20% weighting within the evaluation criteria is still considered appropriate. Whilst there is always some risk that a project performs very well in all of the other evaluation criterion and FIT except in local community engagement, there is sufficient flexibility within the assessment for the Advisory Panel and the Minister to evaluate the project as a whole and recommend the best value for money project, which may not necessarily have the lowest FIT. With this flexibility, it would be worthwhile to consider possible scenarios and the below potential options for ensuring good community engagement.

To supplement the recommendations in Section 3.2.3 around proactively encouraging the wind industry to achieve best practice in local community engagement, the Advisory Panel indicated that it would be prudent to consider establishing an internal minimum benchmark that would be acceptable to the Territory. This is recommended within the context of a potentially decreasing pool of proponents participating in future auctions as more winners are selected and off-take agreements are signed under the RET and through other state government initiatives. In addition, the progression of local community engagement requires time in order for projects to increase their performance and demonstrate this in future auctions. Of note and for the Territory's reference, the Clean Energy Council, Community Power Agency and Embark intend to complete the first stage of the *Enhancing positive social outcomes in wind development* project before the end of 2016, which is a literature review of the existing benchmark based on international and local wind farm projects.

In the case that a preferred proposal does not meet the internal minimum benchmark for community engagement but performs well in the other evaluation criterion, the Territory could consider opportunities, during the contract negotiation phase, to improve community engagement outcomes. For example, the Territory may consider the option of negotiating amendments to the *Community Engagement Plan*. This may involve independent specialist advice on the recommended improvements specific to the project and the provision of mentoring. Essentially, it is an opportunity for the Territory to foster high quality community engagement processes and further mitigate the Territory's reputational risk.

5.1.3 EV3: ACT economic development benefits

The successful proponents committed to delivering exceptional economic development benefits to the ACT and exceeded the expectations of the Territory. The two awarded projects will bring significant investment and economic development benefits to the ACT including:

- A Renewable Energy Innovation Fund worth \$10.8 million over 5 years, consisting of:
 - the development of applied research capability for distributed energy storage and control systems
 - support for the development and implementation of the Canberra Energy Innovation Precinct
 - the design and implementation of market-relevant renewable energy and energy storage trades-training programs
- Local investment benefits totalling over \$100 million over 20 years, consisting of:
 - an ACT-based asset and operations management centre
 - carbon neutral microgrid initiatives with local educational institutions
 - hybrid generation Asia-Pacific Export Hub in the ACT
 - investments in partnerships with local businesses and trades training.

5.1.4 EV4: Reliance on Treasury Financial Guarantee

EV4 has a weighting of 10 per cent, which is still considered appropriate because it is designed to incentivise proponents to offer a reduced PGCM and limit the Territory's liability. Whilst this has not been the case for the successful proponents, the Territory has still limited its risk by setting a maximum value on the PGCM, which is a balanced approach.

5.1.5 Value for money assessment

The Advisory Panel was responsible for assessing value for money and noted they had sufficient authority, information and flexibility in the Auction to make the assessment. As such, the Advisory Panel and the Minister determined that the winners would deliver value for money outcomes due to their low FiT prices of \$77 per MWh and \$89.10 per MWh and best scores against the criteria.

6.0 Fulfilment of Objectives

6.1 Did the Auction process achieve the objectives of the Act?

The Auction process is considered appropriate as it has achieved the objectives of the Act (from Part 2, Section 5). The success of the process was determined by evaluating the alignment between the Auction process and the 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 and other places.

The Auction is one of four other releases of capacity under the Act promoting large-scale facilities. Wind energy is one of many types of renewable energy sources being promoted by the Act. A second round of the wind auction was considered appropriate as wind technology is the lowest cost renewable energy source in Australia. In addition, the Australian wind energy industry is considered to be a relatively mature one.

The successful projects will not be constructed within the ACR, however, these projects will provide exceptional economic development investments into the ACT including ACT-based research, training and businesses.

This objective was achieved.

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.

No other wind farms reached financial close between the conclusion of the ACT Wind Auction I and the conclusion of the ACT Wind Auction II except White Rock Wind Farm, which is believed to be relying on merchant pricing. The ACT Wind Auction II was released a few months after the reduced Renewable Energy Target (RET) of 33,000 GWh gained bi-partisan support through the Federal Parliament. However, there was still residual uncertainty that continued to stall investments in the renewable energy generation industry. Most of the proponents' projects were considered ready to commence construction and required a financially stable mechanism in order to reach financial close. The Auction provided this mechanism for the two successful projects. It has provided desperately needed support to the development of the renewable energy generation industry by investing in wind farms in South Australia and New South Wales.

The Territory is considered to be a strong supporter of the renewable energy generation industry with the success of the ACT Wind Auction I (with Coonooer Bridge Wind Farm already generating electricity) and the ACT Wind Auction II. By leading by example, the Territory has influenced other jurisdictions to investigate reverse auctions and state-based initiatives to promote the competitive development of renewable energy. For example, the Victorian Government ran a tender process that ended in March 2016 for the procurement of Large Scale Generation Certificates (LGCs) related to the government's electricity consumption from new projects [3].

This objective was achieved.

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

The successful projects are required to construct renewable energy generators that produce Accredited Green Power, which means that LGCs will be created for every MWh of electricity generated and the LGCs transferred to the Territory through the FiT Entitlement.

It is estimated that around 11.4 million tonnes of greenhouse gas emissions will be avoided over the 20 years from the successful projects awarded under the Auction [4].

This objective was achieved.

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.

As noted above, the Auction will reduce reliance on non-renewable energy sources in a market where no other wind farms have reached financial close since ACT Wind Auction I. Further, the successful projects of the Auction are additional to the RET and will create additional LGCs. The Auction has minimised the cost of renewable energy to consumers achieving the cheapest known wind energy price in Australia.

This objective was achieved.

7.0 Conclusions and Recommendations

7.1 Conclusions

The following conclusions can be drawn from this review:

- The Auction process was efficient and effective. It stimulated a high degree of industry participation and competition due to the timing of the auction and it being a well administered process.
- Repetition of a known auction process also provided an appropriate level of certainty and predictability in the costing and resourcing of the process. This gave proponents and financiers confidence in the process.
- It was also effective in generating high quality proposals and providing a number of competitive advanced stage projects. Some proposals perhaps could have been more innovative in EV2 and EV3.
- The risk allocation within the Deed of Entitlement strongly favoured the Territory but found an appropriate balance between proponents and the Territory.
- The evaluation process provided flexibility and sufficient information from consultants and sub-panels, to allow the Advisory Panel and the Minister to make informed decisions on value for money outcomes for the Territory
- The weightings of the evaluation criteria are still considered to be appropriate in communicating the priorities of the Territory.
- Value for money outcomes were obtained and the winning submissions exceeded expectations.
- The Auction was successful in fulfilling the objectives of the Act.

7.2 Recommendations

The following recommendations could be drawn from this review:

Recommendation 1: Maintain regular dialogue between the Secretariat and relevant stakeholders

The Secretariat has successfully run multiple rounds of the auction process and it can now be considered to be an established one. Nevertheless, it is important for the Secretariat to maintain regular communication with relevant stakeholders. Sustained communication is particularly important in the lead up to future auctions to ensure resources are available and to allow time for further fine tuning. Relevant stakeholders include ActewAGL Distribution, the Advisory Panel and sub-panel members.

Recommendation 2: Promote the level of community engagement expected by the Territory

The Territory has a direct interest in promoting good community engagement processes and outcomes in the wind industry. The inclusion of EV2 in the evaluation criteria is important but further measures could be taken to effectively mitigate the risk to the Territory. These include clarifying the Territory's expectations both internally and externally as follows:

- Prior to or as part of future auctions, share more examples of best practice and leading edge community engagement with the wind energy industry.
- To improve the consistency of how proponents introduce and describe the wind farm's local community, a pro-forma is recommended within the RFP documentation. This information would be used to provide the Advisory Panel with the necessary context for the evaluation process. The consistent format would reduce time spent finding information to gain a consistent understanding of a wind farm's local community context. It would also allow the EV2 sub-panel members to verify information with greater ease. The information provided in the pro-forma would not include commitments within the *Community Engagement Plan*.
- Establish an internal minimum benchmark that would be acceptable to the Territory. This could be in the form of an internal minimum score or minimum criteria that needs to be achieved for a proposal to be considered further in the evaluation process.
- In the case that a preferred proposal does not meet the internal minimum benchmark for community engagement but performs well in the other evaluation criterion, the Territory could consider opportunities, during the contract negotiation phase, to improve community engagement outcomes.

Recommendation 3: Improve the efficiency of the evaluation process

Repetition of a known evaluation process with the same people involved had its efficiencies. The following recommendation aims to fine tune the evaluation process:

- Define the terms of references for the external technical consultants and financial consultants to minimise overlap in the evaluation

Recommendation 4: Review feedback process to proponents

Proponents interviewed noted that more detailed feedback could increase the competitiveness of future submissions and increase their confidence in the process. To minimise risks to the Territory, it is recommended the feedback process be reviewed to identify if any further detail could be provided.

Recommendation 5: Provide more detail on metering and grid connections in ActewAGL Distribution's Settlement Procedure document

Proponents interviewed with wind farm capacities greater than 100 MW were uncertain how flexible the Territory would be on grid connection and metering arrangements. Clarification and more detail could allow proponents to offer the Territory a technically sound solution with certainty. There is also a potential for proponents to lower the cost of grid connection and decrease the offered FiT price. As such, it is recommended that more detail on metering and grid connection be provided in ActewAGL Distribution's Settlement Procedure document.

Recommendation 6: Share the responsibility for monitoring EV3 initiatives across multiple directorates

EPD is responsible for monitoring the ACT economic development benefits derived from the winners of the Auction as the directorate was responsible for administering the auctions. To provide greater links with the Territory's broader priorities around economic development and increase the resilience of the wind auctions, it is recommended that the responsibility and resourcing for monitoring EV3 initiatives is shared with the Economic Development Directorate.

Recommendation 7: Minimise the time period between the submission date and the announcement of winners to limit foreign exchange rate risk

Proponents interviewed indicated that it is standard industry practice for them to own the foreign exchange and interest rate risk for a certain period of time. However, they noted that this risk allocation was appropriate for a certain period of time of around two to three months between the submission date and the announcements of the winners. Whilst various factors impact the announcement of the winners, proponents noted they owned a potentially unlimited risk. As such, it is recommended that the time period between the submission date and the announcement of the winners be reviewed thoroughly and where possible, to minimise delays, avoiding the Christmas/New Year period.

Recommendation 8: Continue the discussion with financiers on the Auction to minimise any further bankability risks.

Financiers interviewed commended the Territory for driving investment in the renewable energy generation industry. However there was still some uncertainty on the overall process and the DoE. As such, it is recommended that the Secretariat continue discussions with financiers to minimise any further bankability risks. For example, clarify the expected level of financial commitment for EV1.

8.0 References

[1] Giles Parkinson, 27 April 2016, *Australia large-scale renewable investment plunges again to near record low*, Reneweconomy, <http://reneweconomy.com.au/2016/australia-large-scale-renewable-investment-plunges-again-to-near-record-low-74163>

[2] XE, 27 April 2016, *XE Currency Converter*, <http://www.xe.com/>

[3] Department of Economic Development, Jobs, Transport and Resources, Victoria, 03 February 2016, *Renewable Energy Purchasing*, <http://www.energyandresources.vic.gov.au/energy/sustainable-energy/victorias-renewable-energy-roadmap/renewable-energy-purchasing>

[4] ACT Government, Environment and Planning, March 2016, *Outcomes of the ACT's Second Wind Auction*, http://www.environment.act.gov.au/_data/assets/pdf_file/0009/828225/Renewables-and-Wind-Auction-Factsheet-ACCESS.pdf

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