



<b>Project:</b>	<b>Silverton Wind Farm</b>
<b>Meeting No:</b>	Fourth Community Consultative Committee meeting
<b>Date:</b>	Thursday 22 November 2012
<b>Venue and Time:</b>	Silverton Youth Hall 6pm – 8pm
<b>Document:</b>	Meeting notes and actions
<b>Chair/Facilitator:</b>	Kath Elliott (KE), GHD
<b>Minutes:</b>	Rosa Han (RH), AGL
<b>AGL representatives:</b>	Neil Cooke (NC) Manager, Power Development and Nigel Bean (NB), Head of Generation Development
<b>Committee Members:</b>	Peter Price, Silverton Committee/ Silverton Hotel
	Helen Murray, Local resident
	Cynthia Langford, Purnamoota Station
	Kevin White, Historic Daydream Mine
	John Taplin, Secretary Silverton Village Committee
	Phillip Blore, Belmont Station
	Albert Woodroffe, Silverton Committee, Horizon Galleries
	Cameron Koch, Silver City Minerals
	Anne Bransdon, Chamber of Commerce
	Rod Grenfell, Local resident
	Tiff Brown, Department of Primary Industries, Catchments & Lands
<b>Apologies</b>	Steve Radford, Consolidated Mining and Civil
	Naomi Schmidt, Eldee Station
	Marion Browne, Councillor Broken Hill City Council
	Dave Gallagher, Councillor Broken Hill City Council
<b>Community observers in attendance:</b>	Approximately 13

- > Being Australia's largest private owner and operator of renewable energy assets
- > Gaining accreditation under the National GreenPower Accreditation Program for AGL Green Energy®, AGL Green Living® and AGL Green Spirit
- > Being selected as a constituent of the FTSE4Good Index Series

## Meeting Minutes

Item	Action
<p><b>1. Welcome</b></p> <p>Kath Elliott (KE) opened the meeting at 6.00pm and welcomed members of the Silverton Community Consultative Committee (SCCC) and observers in attendance.</p> <p>KE provided an overview of the agenda and introduced the presenter for noise, Rhys Brown (RB), AECOM and the following guest observers:</p> <ul style="list-style-type: none"> <li>• Rob Smithson, Owner’s Engineer (OE), Aurecon</li> <li>• Guy Chick, Essential Energy</li> <li>• Steve Bastian, Essential Water</li> </ul> <p>KE noted that two Indigenous representatives were invited to participate in the CCC. There is one traditional owner representative and one Broken Hill Land Council representative.</p> <p>The minutes from the October meeting were discussed and adopted with no changes required.</p>	
<p><b>2. Noise Presentation by Rhys Brown, Noise Consultant, AECOM</b></p> <p>The noise presentation is available on the project microsite.</p> <p>Questions asked from CCC members throughout the presentation:</p> <p>Q1. Which houses were included in the background monitoring that has been carried out?</p> <p>A1. RB noted he was not able to answer this question as he did not conduct the noise monitoring</p> <p>Q2. What is the relationship between Epuron and Heggies?</p> <p>A2. Heggies was the noise consultant who would have been engaged by Epuron to conduct the noise monitoring.</p> <p>Q3. Can you explain the 6km setback distance?</p> <p>A3. Wind farms and industrial noise in general is assessed on a quantitative basis, i.e. it determines what the actual impact is at each location. Noise propagation is effected not just be distance but different factors such as terrain, number of turbines etc.</p>	<p>AGL to share the background monitoring report with the committee. This will provide information about the location of the monitoring.</p>

Q4. What is the NSW guidelines compared to the SA guidelines?

A4. The NSW wind farm guidelines for noise are in a draft format. The draft NSW guidelines are generally consistent with the SA2003 guidelines which were used for the planning application for Silverton. They both have the same base criterion of 35 dB(A)

Q5. Who commissioned the Sonus study?

A5. A wind farm developer.

Q6. What's the difference between the SA2003 compliance guidelines and the SA2009 guidelines?

A6. The SA2009 guidelines in general provide additional information about how the guideline is applied compared to SA2003. Also the base criterion in SA2003 is 5 dB more stringent than that typically applied under SA2009.

Q7. What is the predominant wind direction for Silverton?

A7. RB did not do the study therefore he was not able to respond to this question. NC to provide answer in his presentation later in the meeting.

There was discussion amongst the SCCC members about the integrity of the compliance noise monitoring that took place prior to AGL's involvement. NB clarified that all the data is provided to the NSW government experts as part of the permit approval process. He noted this would have been heavily scrutinised by the approving authority and rejected if the data was not compliant. He stated that he also has confidence in how the EPA holds developers to account.

NB also noted that the information on monitoring locations is also in the public domain.

Q8. There are claims that people are getting sick from infrasound. Is infrasound something that only certain people can hear?

A8. Infrasound is sound energy with frequency content between 0 – 20Hz – Infrasound is audible at very high levels – 85 dB(G). Studies have shown that other parts of the body do not respond to infrasound below the audible range.

NB also noted that there are claims made about wind farms and health. He stated there are over 200,000 turbines operating around the world and there have been 17 studies conducted which shows there is no link between wind farms and health.

One CCC member mentioned the importance of independent studies on this topic.

Provide a copy of the draft NSW and SA guidelines at next CCC.

**3. Facilitated Q&A session:**

Q9. In regards to topography of the Silverton area, if the noise is generated from the ridge, will the noise travel over the houses?

A1. Yes, noise spreads out in all directions from a source and will propagate in all directions.

Q2. If turbines are 5km away and there's a gale blowing, what will you be able to hear from the turbines?

A2. A number of factors determine if turbines are audible at various distances. It is remotely possible that turbines could be faintly audible 5 km away.

Q3. What's the sound level from a quiet bedroom at night?

A3. It varies, 30 dB(A) is often set as an acceptable noise level inside a bedroom

Q4. Is there a good chance we will hear the turbines from a 2km radius?

A4. Yes, there are times that you will be able to.

Q5. If it was 6km away, will there be a less chance of hearing it?

A5. Yes, the further away you are from turbines then they are quieter. It is noted that the 15 dB(A) contour line is outside of Silverton township based on the current layout. 15 dB(A) is an incredibly low noise level and would only be faintly audible on the rare occasion.

Q6. If the wind speed is higher, does that mean you can hear the turbines less?

A6. Generally yes. Turbines are usually more audible at low wind speeds (3 – 6m/s at the hub) because the background noise level is not as high. As the wind speed increases, turbines hit what is called 'rated power'. This means that even if the wind continues to blow faster, the turbines rotate at the same speed and emit the same noise. At higher wind speeds, the background noise increases and this often masks the noise from the turbines.

**4. Project update, Neil Cooke**

NC provided the following update to the SCCC:

- 5 entities have been shortlisted. They include:
  - Vestas
  - GE
  - Leighton Holding and Siemens Consortium
  - Goldwind
  - Acciona

<p><b>Update on sourcing sand and road base materials:</b></p> <p>NC noted Aurecon were in Silverton taking samples from sand and rock material around Silverton and nearby creeks. These samples will then be analysed to determine if they are suitable to be used for concrete and road base material.</p> <p>If they are suitable, AGL will then apply to Crown Lands for an extractive industry licence.</p> <p>The results (that are expected in January) will be shared with the SCCC as AGL understands the community may want the sand to be extracted from a particular creek.</p>	
<p><b>5. Discussion about water, Steve Bastian (SB), representative from Essential Water</b></p> <p>SB is the Manager of Planning and Design, Water for Essential Water.</p> <p>SB stated that this project will require approximately 4L per second of water from the reservoir, which amounts to 360 kilolitres per day.</p> <p>He noted the water requirement over 2 years of the project was looked at in conjunction to the water requirement of Broken Hill and Silverton. Analysis has confirmed that there is sufficient water supply to meet all requirements.</p> <p>Q1. Was other factors such as dust suppression looked at when determining the water requirement?</p> <p>A1. Yes, everything was taken into consideration.</p> <p>Q2. Why can't you pump more water from the river instead?</p> <p>A2. The water supply comes from Silverton from Umberumberka reservoir and there is an exorbitant cost associated with pumping water back.</p> <p>Concern was raised about siltation pits. A CCC member requested if AGL could consider cleaning the siltation tanks. It was noted that AGL would explore this further and report back to the committee.</p>	<p>AGL to explore whether the cleaning of siltation tanks could occur.</p>

<p><b>Project update: Wind speed modelling</b></p> <p>Please refer to presentation slide 6</p> <p>NC noted there are certain points on the Barrier Ranges which show that wind speeds are very high. When the tenderers look at this, they will be mainly looking at the areas with the highest wind speeds for turbine locations.</p> <p>The distance from the top to the bottom of the map is 35km.</p> <p>The hot spots on the map show where the highest wind areas area.</p> <p>This map was generated using the average wind speed over a number of months. Wind data was collected over 4-5 years and this map is a section of the data.</p> <p>Wind turbines run up to 25m/s.</p>	
<p><b>Project update: turbine locations</b></p> <p>3 turbine locations have been crossed off the list after discussions with Essential Water (this is evident on slide 7).</p> <p>NC noted AGL has asked tenderers to firstly look at:</p> <ol style="list-style-type: none"> <li>1. The commercial rate of return and the best \$/MWh.</li> <li>2. Options for setbacks between 5km and 6.5km from Silverton town.</li> </ol> <p>Q1. Can you give the SCCC an undertaking that you will have the turbines beyond 6.5km?</p> <p>A1. NC noted it is not possible at this stage because a number of factors need to be looked into by the Tenderers before a decision can be made by AGL. NC noted once the tenderers come back with options, then he will be able to discuss this in more detail with the SCCC, including what is possible and what is not. Until this work is done, no commitment can be made.</p> <p>KE clarified to the SCCC that AGL will have the final decision in regards to turbine locations. However, they are committed to consulting with the SCCC and encourage members to ask questions, bring up any concerns they may have and provide feedback.</p> <p>Q2. When will the turbine locations be determined?</p> <p>A2. NC noted we will be in a position to discuss the potential turbine locations further in the April CCC meeting.</p>	

**Project update: Clarification on items discussed at the previous meeting**

At the last SCCC meeting, it was wrongly noted that the base of a turbine is 8m. NC provided the following:

- The base of the turbine tower is approx. 4.5m wide
- Blade is regular truck widths
- There will 3-5 oversized deliveries per day

Q1. Have you attended a traffic committee meeting with the Broken Hill Council?

A2. No. NC noted AGL will be attending a future meeting and continue discussions with Dave Gallagher and Marion Browne which we will feed back to the SCCC.

NB addressed the following question from the previous meeting.

Q1. How long will the turbines remain and what happens after 25 years?

A1. The design life is for 20 years however the economic life is for 25 years and potentially more. Every existing wind farm was designed with this in mind with many power generation assets are over 40 years old today.

The permit states that if any wind turbine is not operating for 12 months then it will be removed. At this stage, we don't know what the technology will be like in the future so there may possibility be new turbines installed.

**6. Next meeting and close**

It was agreed that there will be no meeting in December and January.

The next meeting will be held on the Thursday, 28 February 2013.

The following topics were raised by the SCC for discussion at future meetings:

- A detailed discussion about traffic and road
- Invite project manager from heavy haul company
- Discussion about power lines that run from the site

A CCC member suggested that the focus should be on heavy wide loads. Another CCC member noted he did not see any issue with the trucks and heavy loads required for this project.

Another CCC member also stated that he would like to see drawings of the new road when available.

KE noted that there will need to be a few conversations with the CCC members and AGL to confirm the agenda for the next meeting.

**Meeting closed at 8:00pm.**