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| Project:             | Coopers Gap Wind Farm   |
| Meeting No:          | Fourth Community Consultative Committee meeting   |
| Date:                | Thursday 16 August 2012   |
| Venue and Time:      | Cooranga North Community Hall<br>1pm – 4.00pm   |
| Document:            | Meeting notes and actions   |
| Chair/Facilitator:   | Kath Elliott (KE), GHD  |
| Minutes:             | Sara van der Schatte Olivier (SO), GHD  |
| AGL representatives: | Nigel Bean (NB) Project Director, Evan Carless (EC) Project Manager and Amanda Shaw (AS) Community Engagement Manager |

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| Committee Members: | Ian Schafferis   | Participating landowner          |
|                    | Sue Sinammon     | Participating landowner          |
|                    | Tom Hoare        | Coopers Gap Wind Farm Supporters |
|                    | Cyril Stewart    | Coopers Gap Wind Farm Supporters |
|                    | Chris Du Plessis | South Burnett Regional Council   |
|                    | Jane Holdsworth  | Western Downs Regional Council   |
| Apologies:         | Bryan Lyons      | Concerned Citizens Association   |
|                    | Bruce Gooderham  | Neighbour                        |
|                    | Rod Kane         | Neighbour                        |
|                    | Jacqui Castle    | Neighbour                        |

Community observers in attendance: Approximately 6

### Meeting Minutes

| Item  | Action |
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| 1. Welcome<br><br>Kath Elliott (KE) introduced herself as the interim facilitator whilst Barbara Campany is on leave. |        |

- > 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

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| <p>EC then apologised for any inconvenience caused by the proposed change in venue. EC explained that following on from the request at the July CCC meeting AGL had sought a health expert to present to the CCC. The identified health expert was only available to attend via video conference so a decision was made to move the meeting to Western Downs Regional Council in Dalby to accommodate the video conference. Following concerns raised by some CCC members that the venue had been changed without consultation, AGL moved the meeting back to Cooranga North. The health expert and the logistics surrounding a video conference have been added to the August meeting agenda for discussion.</p>  |   |
| <p>NB introduced a new member to the AGL team, Amanda Shaw, Community Engagement Manager. NB explained that one of the key outcomes of the Future Eye Report was that AGL needed to better resource community engagement so AGL has hired new community relations staff.</p>   |   |
| <p>It was noted that Mal Collinge was not in attendance although he indicated he was coming and it was agreed that KE should contact him to see if he was OK.</p>  | <p>KE to follow up with Mal Collinge</p>  |
| <p>KE outlined that no comments had been received regarding the June or July CCC meeting notes. The following comments were made during the meeting about the July minutes:</p> <ul style="list-style-type: none"> <li>• Under section 5 Other comments – update the third bullet point to reflect that it was the Concerned Citizens who would like AGL to consider lowering the noise limits to 35 dBa and commission attenuation measurements at the fascades of residents not the “community”.</li> <li>• The CCC would like greater accuracy on specific issues in the minutes where it needs to be clear who is represented.</li> <li>• There was some confusion about the reference in the minutes to consideration of 35dBA by AGL. AGL responded that the minutes accurately reflect that they will consider 35dBA at the request of the Concerned Citizens representative. The minutes do not state that 35dBA noise limit will be adopted.</li> </ul> | <p>AGL to update July meeting minutes</p> |
| <p>The committee reviewed the updated terms of reference and asked that the following addition be made under the section Protocol for the operation of the CGCCC:</p> <ul style="list-style-type: none"> <li>• Add a dot point that each group represented on the CCC can identify one alternate representative to attend a meeting if a member is unavailable.</li> </ul>   |   |

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| <p>All members in attendance supported this motion. It was discussed that the alternate should be someone who represents the same group, is informed about the project and is committed to relaying information back to the CCC member who was unavailable to attend. Nominating an alternate representative will be voluntary.</p> <p>NB commented that AGL are trying to ensure a broad representation at each of the meetings and support mechanisms to encourage attendance.</p>  | <p>AGL to update terms of reference and invite members to identify an alternate representative</p> |
| <p>The CCC members then discussed alternate venues to accommodate the health expert:</p> <ul style="list-style-type: none"> <li>• Western Downs Regional Council (WDRC) or South Burnett Regional Council were suggested as these venues would allow other members of the community to attend and hear more about the project. A number of Council staff and Councillors have indicated they want to attend a meeting to hear about the project.</li> <li>• Noted that there were options in Bell and Kumbia but internet was uncertain</li> <li>• It was suggested that if some members had trouble getting to Dalby then a bus should be arranged.</li> </ul> <p>NB said that AGL will manage any logistical issues and make arrangements to try and reduce the inconvenience on members to travel to an alternate location.</p> <p>It was suggested by one member that some future meetings be held at other venues to allow the broader community to have an opportunity to attend.</p> <p>NB commented that it is likely the broader community will also be interested in hearing about the wind farm proposal. In particular, they may be interested to hear about the potential business and employment opportunities during construction of the windfarm and the ongoing maintenance work. NB said AGL would be supportive of a different location to encourage broader attendance by the community.</p> <p>One member asked what concerns other CCC members had about travelling to Dalby to hear from the health expert.</p> <p>KE explained that a few CCC members had wanted the meeting to be held in the local community and that concerns were raised about the health expert attending via video conference rather than in person. AGL recognised that they had not consulted on the decision to move the meeting so they changed the venue back. This has been a lesson learned and moving forward will try and ensure the committee are involved in the decision.</p> | <p>AGL to review alternative venue options to accommodate a video conference</p>                   |

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| <p>One member commented that they were surprised the venue had been changed back and felt that all members should have been called and consulted on this decision. It was felt that some members of the CCC were having more influence than others.</p> <p>KE said that in the future all members will be consulted if a decision has to be made about changes to logistics and this will be done as early as possible.</p>   | <p>All CCC members to be consulted about any changes to logistics in the future</p>  |
| <p>A few members would like to see stronger facilitation of the meetings so all items on the agenda are addressed in a timely manner.</p> <p>It was suggested that whilst a number of the issues raised in previous meetings have been very relevant, the routine of providing issues and questions to AGL prior to the meetings may assist in more timely responses.</p>   | <p>CCC members to forward questions prior to meetings so that AGL can prepare responses</p>                                |
| <p>A suggestion was also made that feedback forms be provided to observers so that they can write down and submit questions or concerns to AGL, anonymously if they wish, that can then be addressed in the following meeting or directly to that community member if the concern is of a personal nature.</p> <p>The process of community members raising their concerns or queries with their CCC representatives was encouraged. Advertising phone numbers of CCC members was not supported by all members. AGL will be a conduit for passing on contact information to community members.</p> | <p>AGL to explore providing feedback forms and a submission box at each meeting for observers to lodge their questions</p> |
| <p>2. Presentation by Rhys Brown, Noise consultant, AECOM</p> <p>Rhys provided a presentation in response to a number of questions that were asked at the previous meeting. This included more information on:</p> <ul style="list-style-type: none"> <li>• Background noise logging</li> <li>• Forecasting noise</li> <li>• Compliance monitoring</li> <li>• Occupational noise</li> <li>• Turbine noise data and CID approval</li> <li>• Façade attenuation</li> </ul> <p>A number of questions were asked throughout the presentation by CCC members and these have been summarised below.</p> |  |

Q1. On page 6 of the presentation, are we looking for averages or looking for high noise levels? There appear to be a number of readings above 45dBA.

A1. The graph you are looking at is the background noise measured – this is the existing background noise people are already living with. This background noise sets the limit for noise generated by the wind turbines. The higher the existing background noise the higher the limit on the turbines.

Q2. How are multiple turbines considered?

A2. The noise modelling has considered the additive effect of numerous turbines where the current layout has multiple turbines near a house.

Q3. Has the Huson Report used the same noise prediction and modelling techniques as AECOM?

A3. The Huson Report has presented the results from noise measurements taken by that company for the attenuation of facades and is different to the measurement of background noise levels or forecasting future wind farm noise. The technique used by AECOM is a conservative model that is commonly used for wind farms. The modelling used for the Coopers Gap Wind Farm compared with four other models at wind farm developments across Australia has been the most conservative. It is conservative because it has not considered shielding from buildings, reduction in noise due to dense foliage and has modelled noise using worst case meteorological conditions and worst case wind directions ie. has assumed that the wind is always blowing towards a house from the nearest turbine.

Q4. If a 2km set back were enforced won't you prevent complaints regarding noise?

A4. Set backs are completely separate to noise limits and compliance monitoring. No matter what distance the set back is, operators still need to comply with noise limits. It is still possible to have a set back of 2kms and exceed noise limits.

Q5. Is noise monitoring carried out all the time?

A5. No, it is common for background noise monitoring to be done month by month until the minimum number of data points in the required wind direction are obtained. Operators of wind farms need to prove compliance with noise requirements. Additional monitoring may be undertaken in response to a complaint or if there are concerns that conditions or something has changed. Before monitoring the wind farm would be checked to see if a turbine is malfunctioning.

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| <p>Q6. How long would it take to monitor noise?</p> <p>A6. It can take 10-20 days to log / monitor noise and it would normally take about 14 days for a report to be developed following the monitoring.</p> <p>Q7. Generally how long would it take for a decision to be made to turn off a turbine?</p> <p>A7. NB responded that at Hallet 2 Wind Farm a complaint had been received in relation to noise and this resulted in noise logging. On the day that the noise report was received a decision was made and the affected turbine was turned off. A turbine at the Oaklands Wind Farm was also turned off as a precautionary measure. The turbines were turned off for months due to a mechanical fault in the gear box. As well as wanting to minimise impacts on the community there is a huge commercial imperative for AGL not to breach noise limits as they run the risk of losing their licence to operate.</p> <p>Q8. High voltage transmission lines can roar on a windy day. How noisy are these?</p> <p>A8. The noise generated depends on local circumstances so it is not possible to give a general figure about noise generated by high voltage transmission lines, but yes, transmission lines can generate noise when the wind is blowing.</p> <p>Q9. How far from a wind farm can infrasound be heard?</p> <p>A9. Criteria is set around audible infrasound which is about 85dbg. Wind turbines generally generate between 60-65dbg so it can be heard up to about 50m away from a wind turbine.</p> <p>Q10. Will any residences experience noise above 40dBa?</p> <p>A10. Aside from participating landowners who have agreed to limits of 45dBa, the modelling indicates that no residences will experience noise above 40dBa.</p> <p>Q11. Has background noise logging been carried out at both participating and non-participating landowner properties?</p> <p>A11. Yes, the background noise logging was carried out at 12 properties adjacent to the site including a mix of participating and non-participating landowners.</p> |  |
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| <p>Q12. Could an existing windmill have affected the background noise logging?</p> <p>A12. Anything around the site where noise logging was undertaken would have been recorded and if a windmill was close to the noise meter it could have raised the background noise level. However there are guidelines which determine appropriate places where noise meters can be located for example the guidelines say that the noise meters have to be installed away from noisier environments and away from surfaces where noise could be reflected.</p> <p>Q13. How far is the nearest turbine to a house?</p> <p>A13. The closest distance of a turbine to a non-participating landowners is approximately 1200m.</p> <p>Q14. How close can two turbines be located to each other?</p> <p>A14. NB responded that generally 600 metres is about as close as two turbines will be located. Design criteria and a wake affect will determine the distance between turbines.</p> <p>Q15. What determines the distance between a residence and a turbine?</p> <p>A15. The distance is determined by noise criteria not a set back distance. The noise criteria is normally 40dBA or background +5 dBA (which ever is greater) outside the residence. 40dBA outside is appropriate based on the acoustic quality objective of 30dBA at night indoors when applying a typical reduction of 10dB across a façade containing an open or partially open window.</p> |  |
| <p>Q16. Does the ocean cause infrasound?</p> <p>A16. Yes, the infrasound generated 20-50 metres from the ocean is similar to the infrasound generated at a distance of 150 metres from a wind turbine. At this distance the infrasound is not audible.</p> <p>It was explained by Rhys that acoustic consultancy Sonus undertook a study for the Pacific Hydro Wind Development which measured infrasound at a number of residences close to a number of different noise sources including a wind farm, gas fired power station, the beach and Adelaide CBD. The highest generator of infrasound was Adelaide CBD and it was found that wind farms fell well below the infrasound noise criteria.</p>  |  |

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| <p>3. Discussion on health expert and logistics</p> <p>The committee discussed that Rhys be invited to the September meeting to present to those members who were not available to attend the August meeting.</p> <p>Committee members discussed that they would like to prevent the next meeting covering the same material and so suggested that a catch up session be run from 12pm-1pm. During this time, Rhys Brown can again run through this presentation and address any questions. The standard 3 hour meeting would then follow immediately after. It was agreed that this session should also be advertised as usual so that community members are aware and can attend.</p> <p>EC explained that following the July meeting AGL researched health experts with wind farm knowledge and consulted with a number of industry specialists. Two people were identified as recognised health experts that had knowledge of wind farm developments. One expert declined the invitation to present to the CCC because of independent research commitments. The other independent health expert is Simon Chapman, Professor of Public Health at the University of Sydney. Simon has a busy teaching schedule and did not want to be paid by AGL to attend the meeting or be reimbursed for his travel. However he is willing to present to the CCC via a video conference. He is now not available until the October meeting to present to the committee.</p> <p>A few suggestions were made that the meeting be held as close to Cooranga North as possible and the community halls at Bell, Kumbia and Jandowie were raised as potential venues for investigating.</p> <p>Recording the video conference was suggested and this will be investigated however permission will need to be sought from Simon Chapman and all CCC members before this would go ahead.</p> | <p>Invite those members who were unable to attend the August meeting to a catch up session prior to September meeting</p> <p>AGL to advertise the additional session</p> <p>Confirm logistics for health expert meeting in October and bring to September meeting for discussion</p> |
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| <p>A question was asked about what the brief had been to the health expert and whether there was a particular section of the Initial Assessment Report (IAR) that would be addressed in his presentation?</p> <p>EC explained that the IAR did not have a specific dedicated chapter on health but rather that health was addressed under the noise section of the report and in relation to shadow flicker. It was explained that Simon Chapman would be speaking generally about health in relation to wind farm developments and would comment from a public health point of view. EC would ask if Simon could address the concerns raised by this community including shadow flicker, noise and touch on existing research and studies undertaken in Australia. EC said he would ask if Simon would address these concerns however given that he is independent there is no guarantee Simon will address all requested items.</p> <p>A question was asked if AGL knew the point of view of Simon Chapman. NB said yes, he knows Simon does not believe there is a direct connection between wind farms and increased health impacts however he has been invited by AGL to attend the meeting as he is credible, independent and a university professor respected by his peers.</p> | <p>AGL to ask health expert to address concerns specifically raised by the community</p>        |
| <p>4. Next Meeting objectives and agenda</p> <p>The following requests were asked by CCC members to be addressed at the next meeting:</p> <ul style="list-style-type: none"> <li>• CDP asked that following the catch up session Rhys provide an overview to the whole group at the start of the meeting on any key questions asked.</li> <li>• A request for full page presentation slides to be distributed and uploaded onto the website so they are easier to read.</li> <li>• Provide an update on the timeframe and status of the QLD noise legislation.</li> <li>• Shadow flicker, fire management and electromagnetic interference potential topics for September meeting (health expert not available until October).</li> <li>• EC will check on the availability of the regional fire commander from QLD Fire and Rescue to see if he could come and provide information.</li> <li>• A request for a member of the Clean Energy Council to attend one of the CCC meetings. EC to follow up.</li> <li>• Property values was another topic suggested for future CCC meeting.</li> </ul>   | <p>Full page presentation slides to be distributed to CCC members and posted on the website</p> |

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| <p>5. Other business</p> <p>KE raised that some requests for information had been received by AGL via email that may have been of interest to the CCC. It was acknowledge by the members that if the request for information was of a general nature then sharing this information would be of benefit but any requests for information that are of a personal nature should be kept confidential.</p>  |  |
| <p>A community observer asked how long it would take from the point of project approval to the turbines being constructed.</p> <p>AGL explained that they are hoping for a determination on this project by mid 2013 at which point they would launch a procurement process which would take 6-9 months at a minimum. The earliest construction would commence would be the end fo 2014.</p>  |  |
| <p>CDP raised the issue of roads and compensation for repair / damage to Council roads during construction of the wind farm. CDP explained that Council had to spend \$4 million on repairing roads following the construction of another development and they did not want this to be repeated.</p> <p>NB explained that a Traffic Management Plan would be developed including the identification of haulage routes, improvements required, dust minimisation and a survey of the road prior to construction. AGL would then ensure any damage to roads would be repaired following construction.</p> |  |