

2 December 2013

**NSW Planning Assessment Commission Determination Report
Collector Wind Farm Project, Upper Lachlan Shire LGA**

Project

The Collector Wind Farm Project is a proposal to construct and operate up to 63 wind turbines with a total installed capacity of 214 megawatts, near the township of Collector, approximately 35km south-west of Goulburn. The project includes associated infrastructure in the form of access tracks, road upgrades, a control room and maintenance facilities, up to 4 wind monitoring masts, a substation and connections between turbines, the substation and the existing 330 kilovolt transmission line.

Delegation to the Commission

The Commission received the referral to determine the project under delegation from the Minister for Planning and Infrastructure on 24 September 2013.

Mr Garry West (chair), Mr Brian Gilligan and Mr Richard Thorp constituted the Commission to determine the project.

Department's Assessment Report

The Director-General's Environmental Assessment Report detailed the following key issues:

- Noise (construction and operational impacts);
- Visual Amenity (operation impacts);
- Biodiversity (construction and operation impacts); and
- Health impacts.

Other issues considered in the report include: property impacts (property values), community consultation, heritage, traffic and transport impacts, Crown Land including Native Title, community contributions, bushfire safety, aviation safety and decommissioning.

The Department concluded that significant impacts are unlikely, noting the project would be designed to achieve compliance with applicable noise and vibration criteria at non associated dwellings and that the impacts on landscape values as a whole, would be acceptable.

The Department concluded that provided the commitments, management measures and stringent requirements of the recommended conditions are implemented, the impacts of the project can be minimised and managed to acceptable levels. On balance, the project was found to be justified and in the public interest and was recommended for approval.

Site Visit and Meetings

On 28 October 2013 the Commission visited the Collector area to inspect the proposed site of the wind farm.

On 29 October the Commission travelled to Gunning and Collector for meetings as outlined below.

Meeting with the Proponent

The Proponent explained the site was selected due to the consistent wind in the area and its proximity to existing power transmission infrastructure. The Proponent indicated that the site could accommodate more turbines, but that by reducing the number of turbines (80 to 63) it had responded to the concerns of the Collector community, reducing visual impacts on the

landscape. The Proponent also suggested that some of the proposed turbines had been relocated as a result of discussions with landowners and site constraints.

Meeting with Upper Lachlan Shire Council

The Commission met with Council's Mayor, John Shaw, along with senior Council staff including the General Manager Mr John Bell. Council noted the predominantly rural demographic character of the Local Government Area and the Upper Lachlan is looking for economic development particularly projects that provide employment opportunities. In relation to this application, it was noted that while the project may have some positive employment opportunities during construction, the operational phase would only require approximately 10 employees and these would not necessarily be local residents.

Council has been involved with the application since the beginning and had discussions with both the objectors and supporters. Council acknowledges it is to be assessed as a State Significant Development and so it has focused on ensuring that the community would not be disadvantaged if the development was to proceed.

Council raised concerns about social impacts and the damage done in dividing the community, noting that the Proponent's community consultation had not been to the same standard as that for some other major developments in the region. The cumulative impact with other wind farms already constructed and those being proposed were also raised as an issue of concern.

Council flagged concerns over the proposed construction routes indicating the existing road infrastructure would be impacted through the significant increase in vehicle movement. Project traffic should be limited to access from the highway. Council also sought to clarify the governance arrangements applying to the proposed community enhancement program; how the funding of up to \$200,000 would be utilised; and across what area, community enhancement projects should benefit. Council requested that the Community Consultative Committee be a separate entity from any committee overseeing the Community Enhancement Program funding.

Public Meeting

From 4 pm on Tuesday 29 October 2013 the Commission held the first of two public meetings at the Collector Community hall, Bourke Street, Collector. The Commission heard from 24 speakers at the meeting. The second meeting was held from 9.00 am on Wednesday 30 October 2013 with 13 speakers heard at the meeting. The speakers are listed in Appendix 1. Some speakers supported the proposal, while others raised concerns or objections to the project. Issues raised both for and against the proposal and the key points are summarised as follows.

Speakers supporting the proposal highlighted the need for the project, suggesting that wind turbines reduce greenhouse gas emissions; are a source of renewable energy; and are important for addressing climate change.

It was suggested that there is a lack of consensus on the negative impacts of wind turbines and that fear campaigns are being funded by hobby farmers new to the area.

The suitability of the site was also raised by some, suggesting it is an ideal site, particularly given its proximity to the electricity grid.

One speaker noted that the proposal represents a new industry for the area, and while the proposal does not provide significant employment, it would drought proof a number of host pastoral properties and that this would be a significant benefit for this rural area.

Speakers emphasised a particular concern about visual impact from the public domain with the turbines becoming the predominant feature of the escarpment. Speakers from the local community questioned the validity of the proponent's visual assessment. Concerns were also raised over the impact on property values and the effect on future subdivision potential of rural properties.

Another issue raised was the potential for health impacts arising from low frequency noise and infrasound. Some objectors argued there are clearly documented health impacts, while others suggested there is significant uncertainty regarding the health impacts and that the precautionary principle should be applied. It was noted that the National Health and Medical Research Council is currently undertaking a review and other studies such as the one conducted by the South Australian EPA were also mentioned. Further, transparent and unbiased, studies of possible side effects were called for, noting that a preventative/precautionary approach should be adopted.

Questions were raised regarding the duty of care for children living on host properties in close proximity to the turbines, along with concerns for health impacts on livestock and wildlife.

Impacts on amenity that were raised included noise and visual impacts, particularly given the size, scale and industrial qualities of the turbines, and the quiet rural setting they are proposed to occupy. The potential cumulative visual impacts, when considered with other wind farms proposed to be developed in the district and in particular the existing Cullerin Range wind farm directly to the north of the proposal, was a concern for many speakers.

Property values and marketability were expected to be impacted with speakers suggesting that values had been reduced by up to 60% around other wind farms and noted an example where reduced land values near a wind farm had triggered a reduction in Local Council rates. It was also noted that rural properties represent a significant investment asset, and the sale of the property is relied on as a source of superannuation for many farmers. Some nearby landowners are now concerned the value of their properties will be significantly reduced, or that they will not be able to sell, or subdivide, their properties.

Social impacts were said to have already occurred, noting that the proposal has divided the community. The level of community consultation undertaken by the Proponent was criticised and there was also concern that confidentiality clauses in contracts with host landowners are restrictive. Speakers also questioned the level of community benefit with some suggesting the proposal should include additional local contributions.

Some speakers questioned the viability of the wind industry as a renewable energy source, when subsidies, reliability and the need for coal power are considered. The embodied energy of the wind turbines was also questioned.

A number of speakers were dissatisfied with the level of information available, requesting that the wind farm noise audit reports be released.

Concerns with the Department's assessment were also raised particularly that it is considered to be biased and exhibits an ideological commitment to supporting wind farm development. Speakers also suggested that the Department's assessment had not addressed the community's concerns or relevant planning legislation.

Other issues raised included:

- concerns about the level of consultation and opportunities to comment;
- flora and fauna impacts, including threatened species, birds, bats and hollow bearing trees;
- concerns regarding decommissioning and disposal of the turbines;

- bushfire risks, noting the Rural Fire Service does not have a standard operating procedure for wind farms;
- the suitability of the escarpment as a location for a wind farm;
- concerns the project is not justified and public interest has not been established; and
- the use of (red) aviation safety lighting on the turbines.

A large number of documents were submitted prior to the public meeting, at the public meeting and/or sent by email following the meeting.

Meeting with the Department of Planning and Infrastructure

On 15 October 2013 the Commission met with representatives of the NSW Department of Planning and Infrastructure for a briefing on the project.

On 4 November 2013 the Commission again met with representatives of the NSW Department of Planning and Infrastructure to discuss the issues raised at the meeting. The Commission noted that considerable concern had been raised at the public meeting.

The Commission noted that speakers had made reference to work dating back to the 1980s relating to noise impacts from early model wind turbines. The Department advised it was aware of this work and suggested that wind turbine technology has improved since this time, noting the turbine structures were very different and that the controls in the recommended conditions are more stringent than previously imposed. The Department emphasised the fact that turbines would be at least 2 km from any non-associated dwelling and noted that the majority of the studies on impacts from turbines relate to dwellings much closer to the turbines.

The Department also referred to the Victorian Department of Health publication "*Wind farms, sound and health: Technical information*", which was published earlier this year.

The Commission sought clarification on the potential differences between turbine models and associated impacts. The Department indicated that generally the indicative models are similar in terms of noise performance, but that it has recommended conditions which set performance based criteria, rather than specifying one model over another.

The Commission also noted that speakers at the public meeting had suggested the NSW Valuer General's "*Preliminary Assessment of the impact of wind farms on surrounding land values in Australia: NSW Department of Lands*" was out of date and should be updated. The Department advised it had no indication that this was being undertaken.

Meeting with NSW Health

Prior to the project being referred to the Commission, Commissioner available at the time had met with the NSW Health representatives Professor Wayne Smith, Director Environmental Health Branch, and Dr Jeremy McAnulty, Director Health Protection NSW on Thursday 22 August 2013 to discuss potential health related issues associated with wind farms.

NSW Health was very clear in its advice, which is consistent with that of the National Health and Medical Research Council, "*that there is no published scientific evidence to link wind turbines with adverse health effects*".

NSW Health recognised that noise from turbines may cause some disturbance to people living in very close proximity (less than 700 m from the turbines).

In relation to infrasound, NSW Health echoed the advice of the World Health Organisation, which has stated that there is no reliable evidence that sound below the hearing threshold produces physiological or psychological effects.

NSW Health noted that symptoms reported by residents close to wind farms are also reported by those living near other developments of various kinds. Studies indicate that these symptoms are suggestible, i.e. if individuals are expecting to be impacted they will be more likely to report symptoms. It was also suggested that the visibility of the turbines influenced the likelihood of complaints from a neighbour. Sleep disturbance was considered to be a more difficult issue, but was also potentially a result of an individual's broader concerns about a development.

NSW Health noted that the wind industry could improve its approach to community engagement and should be more proactive and transparent in this regard.

In summary NSW Health noted that some noise and associated health impacts could be expected in close proximity to wind turbines, but that the 2 km buffer distance proposed in this instance was considered to be very conservative and precautionary from a health perspective. The Public Statement from the National Health and Medical Research Council is still in place and NSW Health is not aware of any evidence that would call for a change to this advice (*that there is no published scientific evidence to positively link wind turbines with adverse health effects*).

Commission's consideration

The Commission has carefully considered the proposal, the Director-General's Environmental Assessment Report, issues raised by the Upper Lachlan Shire Council and in submissions at the public meeting and in the supplementary documentation/correspondence provided by speakers.

Visual

The assessment of visual amenity/impact is obviously complex and highly subjective with some people positively disposed to the aesthetics of wind turbines, while many others dislike them.

The Commission acknowledges that the project will have visual impacts particularly when viewed from the public domain of Collector village. Many speakers at the public meeting, expressed concern the area would become industrial in character as a result of the project particularly when noting the considerable scale and height of the turbines.

The Clouston Associates peer review (May 2013) commissioned by the Department of Planning and Infrastructure identified a number of shortcomings with the assessment methodology used by Green Bean Design with the original assessment, resulted in what were considered to be unreasonably low ratings of visual impacts at individual residences and in particular, in the public domain areas in Collector village.

The Friends of Collector commissioned a critique of the EA assessment which provided an alternative view of the visual impact assessment report. This highlights the extremely subjective nature of the (visual) assessment process. The Commission is of the opinion that one of the fundamental issues was that the original assessment did not have, as its starting point, an understanding of the attributes most valued by members of the local community. In addition, the Commission considers that the apparent limited recognition of elevation, aspect and outlook as relevant attributes for determining the impact at specific residences is a significant short coming.

The Commission undertook extensive movements on the local road networks and from the highway over the course of three days to obtain a better understanding of how the wind farm would be viewed from the public domain including Collector village.

As a result, and after considering the public submissions, the Commission is of the view that the value of landscape in the public domain has not been adequately identified in the visual studies and reaches a different conclusion to that in the Department's assessment report.

The Commission also had consideration of recent Land & Environment Court matters which involved visual concerns including a Planning Principle with regard to visual impact. This Planning Principle arose from the *Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor [2013] NSWLEC 1046*. The Planning Principle provides a number of steps to be considered when taking into account visual impact. These steps include identifying the nature and scope of the existing views from a public domain. The identification should encompass the nature and extent of any existing obstruction of the view; relevant compositional elements of the view (such as is it static or dynamic and, if dynamic, the nature and frequency of changes to the view); what might not be in the view - such as the absence of human structures in the outlook across a natural area; is the change permanent or temporary; or what might be the curtilages of important elements within the view.

The Commission finds the views from public roads to be transitory (views taken those driving on the local road network) whereas the view from the public domain of Collector village is static.

The main visual intrusion is the scattered view from the public domain to the individual turbines along the ridge line.

The Commission observed a number of locations within Collector where the immediate view to the escarpment could be considered to be interrupted by the placement of turbines.

The Commission is of the view that the qualitative aspect of a public domain view assessment will necessarily be subjective.

A second Land & Environment Court hearing, considered by the Commission, *Taralga Landscape Guardians Inc v Minister for Planning*, found that '*The insertion of windfarms into a rural landscape involves interrupting the rural and natural cohesion of that landscape.*'

In this matter Justice Preston made the point that the threshold question to be considered is whether a 'breach' in the general landscape should be permitted and if it is permitted then the extent of that breach should be determined. In Collector the Commission is of the opinion that the introduction of the wind farm within the immediate view shed of the Collector village public domain would be a significant visual intrusion resulting in an unacceptable visual impact and therefore gave consideration to the mechanism for minimising the extent of that intrusion.

The Commission considers the deletion of 8 turbines closest to the view corridor (turbines 53 to 60 – refer Figure 1 below) of the public domain of Collector village will significantly reduce the visual impact from the proposal. The deletion of these turbines will also reduce the cumulative view shed when viewed from the Federal Highway. A condition modifying the scope of the project to reflect this change has been made.

In addition, the Commission notes that the deletion of these 8 turbines will also ensure the micro-siting of the southern turbines will not result in several non associated properties possibly falling within the 2 km buffer zone around the wind farm.

Further, consistent with the Department's recommended condition, the Proponent should be required to provide plantings to screen views from dwellings within close proximity of the turbines, where requested by the landowner. The growth rate and survival of these plantings will be the key to the success of this scheme and the Commission notes the landscape plan includes requirements to monitor and maintain the landscaped areas, to deal with this issue.

The Commission concludes that vegetation screens will not remove residential views of the turbines entirely, and that the turbines will still be visible from some roads rendering some visual impacts unavoidable. However this minor impact needs to be balanced with the benefit of the wind farm project.

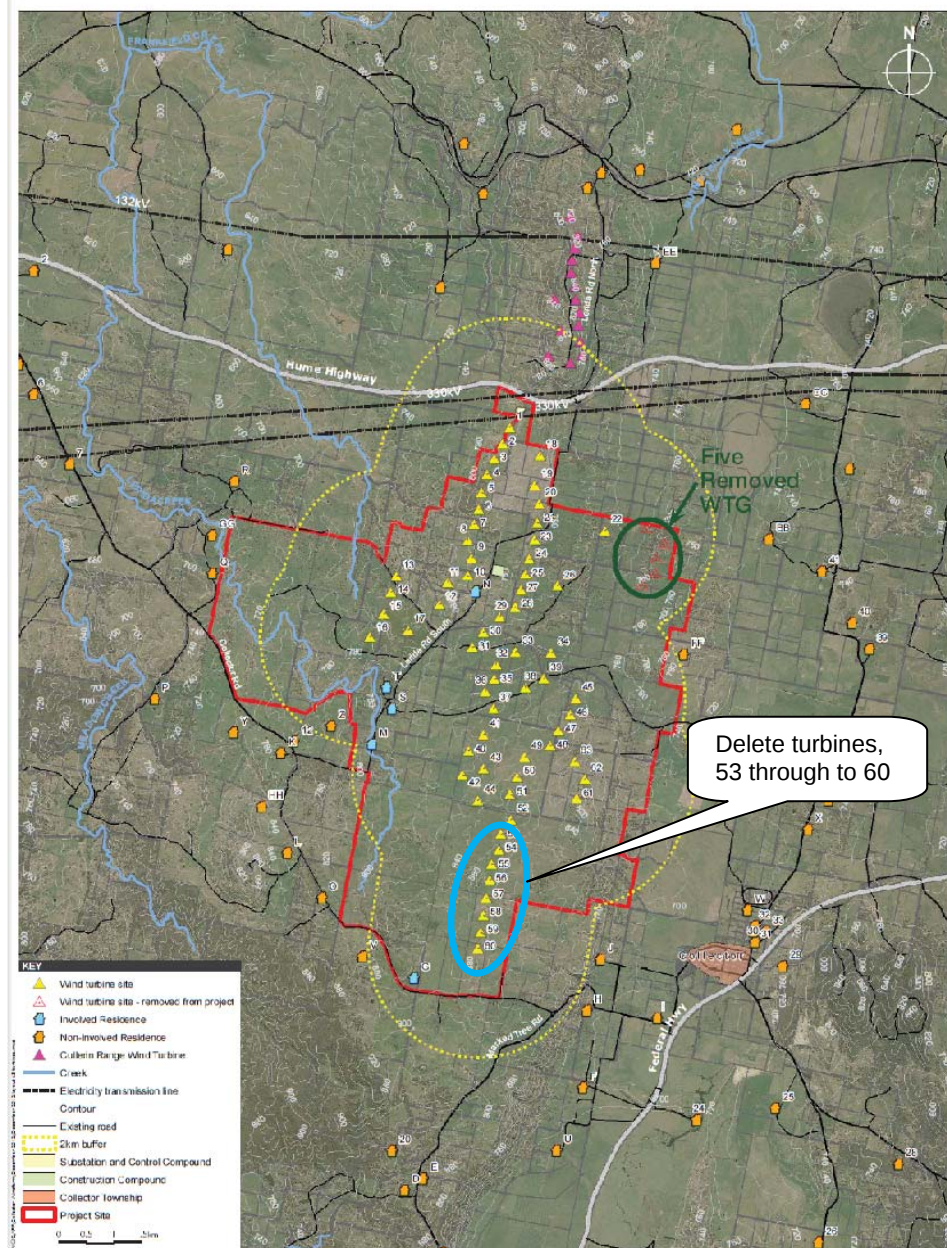


Figure 1: Preferred Project Layout

Figure 1: Deleted turbines (53 -60) indicated by blue oval

Property values

Some speakers at the public meeting advised the Commission that impacted neighbours should have the option for their properties to be purchased by the proponent or, alternatively, that financial compensation for any reduction in their property values attributable to the wind farm be provided. Alternatively, monetary compensation should be made available for each turbine visible from a property.

The *Draft NSW Planning Guidelines: Wind Farms*, requires non-associated properties to be located at least 2 km's from the nearest turbine which the Commission considers, in part, to be a mitigating measure in addressing this issue.

During the two days of the public meeting, the Commission observed an understandable tension between host property owners who receive a significant financial benefit and their neighbours who see themselves receiving no benefit but having visual and potentially property value impacts without compensation.

During the public meeting, the Commission was provided with a copy of a land valuation study commissioned to review potential impacts for properties adjoining, or near to, wind farms.

The study prepared by Peter Reardon and titled '*The Impact of Wind Turbine Developments on Surrounding Rural Land Values in the Southern Tablelands, NSW*' undertook a review of three properties affected by wind farms and compared them to similar properties located away from a wind farm. The study states that in two of the three cases the sale price for the property located adjacent to a wind farm saw a reduction in land value, with the third property having no devaluation.

However the Commission notes that of the two properties apparently impacted, one also had encumbrances including being bisected by a highway and having a transmission line running across the property; the second property was subject to serrated tussock infestation (serrated tussock is not palatable for livestock and has little feed value). The comparable properties were, in the main, sites that had been cleared for rural residential purposes.

The Commission also acknowledges a study commissioned by the NSW Valuer General in 2009. The study titled '*Preliminary Assessment of the Impact of Wind Farms on Surrounding Land Values in Australia*' focused on the impacts of wind farms on land values mainly through the analysis of property sales transaction data. This included reviewing 45 sales within 8 study areas which the Commission considered to be more substantive than the Reardon study. The main finding of the Valuer General's study was that wind farms (erected at the time of the report) did not appear to negatively impact on property values in most cases.

The Commission acknowledges the results of the study which suggested that a property's underlying land use may affect the property's sensitivity to price impacts rather than impacts from development of adjoining lands or intrusions on the landscape.

The study found that properties in rural / agricultural areas appeared to be the least likely to be affected by a wind farm with no reductions in value for rural properties evident at any of the wind farms investigated. The study also reported that residential properties in townships with distant views of a wind farm (more than 2-3 kilometres away), also appeared to not have been negatively affected by a wind farm.

The Commission notes that with the recommended deletion of the 8 turbines closest to Collector village that residential properties in the village would be more than 3 kilometres from a turbine.

Presentations during the course of the public meeting also suggested that the local environment is changing with a number of lifestyle or hobby farmers moving into the area. The 2009 NSW Valuer General's study noted that in most locations where there were lifestyle properties located near to wind farms that there was no reduction in property values.

Notwithstanding this, it is the opinion of the Commission that the Valuer General should consider updating specific, targeted land evaluations such as for sites within the catchment of larger wind farm developments.

The difficulty of precisely determining what loss of value, if any, can be attributed to a wind farm is an issue for Government, with the Commission applying existing policy and relevant legislative settings.

The Commission also notes the Land & Environment Court matter, *King & Anor v Minister for Planning; Parkesbourne-Mummel Landscape Guardians Inc v Minister for Planning; Gullen Range Wind Farm Pty Limited v Minister for Planning* ([2010] NSWLEC 1102) where the court considered the matter of property values for sites adjacent to a wind farm. The judgement noted there was no loss of value to which the court could lawfully have regard to in the proceedings as the wind farm was permissible with consent. The judgement then went to state '*creating such a right to compensation would not merely strike at the basis of the conventional framework of land use planning but would also be contrary to the relevant objective of the Act, in s 5(a)(ii), for "the promotion and co-ordination of the orderly and economic use and development of land"*'.

Simply put, the court has determined that if the concept of blight and compensation were to be applied to a private development then any compliant private project which was considered to have an impact on another property would be exposed to such a claim.

The Commission accepts the Valuer General's comments that in most cases there is no impact on property values.

Health and Noise

One of the concerns raised with the proposal related to potential noise impacts and associated health effects. The Commission notes that the noise levels predicted to be produced by the turbines are not expected to exceed 35 dB(A) at any non associated dwelling. Low frequency noise levels are also expected to be well within the levels recommended in the *Draft NSW Planning Guidelines: Wind Farms*, at non associated residences. The Department's assessment also indicates that infrasound is not expected to be perceptible at any non-associated dwelling.

NSW Health also made it clear that noise levels at distances of more than one km from turbines would not cause health impacts and a 2 km buffer is highly precautionary noting the buffer for this proposal is greater than 2 kms. The Commission has accepted the advice of NSW Health, noting it is consistent with that of other health authorities, such as the Victorian Department of Health, and is satisfied that the proposal does not represent a health risk to the local community.

The Commission noted that the noise conditions recommended by the Department of Planning and Infrastructure did not specifically limit low frequency noise as the noise levels are not expected to exceed 60dB(C) at any non associated dwelling.

Notwithstanding this, the concerns expressed to the Commission by the community are acknowledged with the main issue raised being 'sleep deprivation' which then leads to other health related symptoms.

The Commission is satisfied that the proposed noise conditions will ensure that rural amenity, and individual well-being, will be protected.

The community also raised particular concern with regard to the recommended conditions E13 and E14 stating they would be 'unworkable' and that there is a lack of clear penalties for any non-compliance. The argument for real time monitoring and automatic shutdown in instances of non-compliance was also raised. The Commission is of the view that a response to non-compliance is always going to be complicated by the need to consider the specific circumstances, the time when it occurs, the nature of it and the number of people impacted. Further, the automatic shutdown of an entire wind farm or significant proportion of it may be considered an over-reaction to a specific localised problem, noting the wind farm extends over a broad area.

The community also questioned the Department of Planning & Infrastructure's ability to investigate noise related non-compliances. The Commission has been advised that for matters relating to non-compliance with noise that electricity works (wind farms) is a scheduled activity under the *Protection of the Environment Operations Act 1997* and therefore the regulatory authority is the EPA, not the Department of Planning & Infrastructure. The EPA, with technical specialists in the field of noise, is equipped to ensure the wind farm complies with noise conditions through the project's Environmental Protection Licence.

The Commission noted the recommended conditions did not incorporate the provision for an Annual Environmental Management Report to be submitted. The Commission are of the opinion the requirement for an Annual Environmental Management Report will ensure transparency with regard to the project's level of compliance.

In the Commission's experience, there have been various studies that have been conducted and advice that is available from experts and agencies including the Victorian Department of Health, the South Australian Environment Protection Authority (EPA) and the Public Health Association of Australia.

The South Australian EPA have commissioned a report '*Infrasound levels near windfarms and in other environments*' (January 2013) which presents the findings of a comparative study into the level of infrasound within typical environments in South Australia, with a particular focus on comparing wind farm environments to urban and rural environments away from wind farms.

The report states '*Additional analysis of the infrasonic frequency content at the 11 measurement locations considered in this study indicates that there does not appear to be any significant difference in frequency content between sites adjacent to wind farms and sites located away from wind farms. Sound pressure levels measured across the infrasonic frequency range at houses located adjacent to wind farms were at or below the levels measured at comparable locations away from wind farms.*'

The Commission notes that the report went on to state '*infrasound levels at rural locations both near to and away from wind farms were no higher than infrasound levels measured at the urban locations. The most significant difference between the urban and rural locations was that human activity and traffic appeared to be the primary source of infrasound in urban locations, while localised wind conditions appeared to be the primary source of infrasound in rural locations. Of particular note, the results at one of the houses near a wind farm (Location 8) are the lowest infrasound levels measured at any of the 11 locations included in this study.*'

The South Australian EPA study concluded that the level of infrasound at houses near the wind turbines is no greater than that experienced in other urban and rural environments, and is also significantly below the human perception threshold.

The Victorian Department of Health technical information report titled '*Wind farms, sound and health*' (April 2013) stated '*there is no evidence that sound which is at inaudible levels can have a physiological effect on the human body. This is the case for sound at any frequency including infrasound*'.

While the Commission notes the concerns raised by some members of the community, the Commission must give authority to the definitive advice provided by the relevant health authorities and is of the view that noise levels at a distance of more than one km from turbines would not cause health impacts and therefore the proposal will not adversely impact on the health of individuals in the local community.

The Commission acknowledges that real time noise monitoring may be used as a management tool, in some industrial situations.. The use of real time monitoring for compliance purposes would be difficult for wind farm noise due to a number of factors including the requirement to verify the operational data of the wind farm at the time of the monitoring; the separation of extraneous noise to that being generated by turbines etc; wind speeds (which can mask noise produced by a wind farm); and prevailing meteorological conditions. The Commission is satisfied the recommended conditions will ensure operational noise compliance.

Fire Safety

The Community raised significant concern with regard to the potential for the turbines to start a fire which could spread, uncontrolled, across the rural landscape in addition to the inability of firefighters to combat fires in the region due to aviation safety constraints.

The proponent has advised the Commission that bush fire risk is managed through a range of alternative design and risk management approaches including:

- continuous turbine monitoring of key operational parameters (eg electrical fault, equipment temperature, etc) linked to response mechanisms such as turbine shut-down and operator alert to investigate and take further action as required;
- operators on site to have access to basic fire-fighting equipment on site (including extinguishers in the nacelles) to respond to immediate issues such as turbine fires being caused during equipment repairs / maintenance;
- installation of lightning protection in accordance with Australian Standards and IEC 61400 for all turbines, with different protection zones within the turbine depending on strike areas, to minimise risk of ignition caused by lightning strike;
- design and management of areas in immediate vicinity of turbines to minimise fuel available for spread of fire away from a turbine (eg limiting vegetation growth around turbines), as well as maintaining site roads to facilitate access for fire-fighting;
- in the unlikely event of a fire that cannot be controlled by the operator, standard operating procedure will be to let the turbine burn out (there is limited fuel within a nacelle to keep it burning for too long) with operator / fire fighters maintaining a 'watching brief' around the turbine to stop any ember attack that could result in an uncontrolled bushfire.

The proponent advised the Commission that there is no expectation of attempting to fight the fire at hub height of 80/90 metres above ground and it is acknowledged that any out of control fire would be managed at ground level to ensure no fire spread.

The Commission notes the recommended conditions require the Construction Environmental Management Plan to include a hazard and risk management plan (including bush fire)

however the specification in the recommended conditions for the Operation Environmental Management Plan does not explicitly address this concern. Therefore the Commission has amended the recommended conditions to incorporate the requirement for a bush fire management plan to be developed in consultation with the Rural Fire Service.

This was a significant concern raised by the community however the Commission is satisfied subject to compliance with the conditions, as modified, the threat of bush fires can be adequately managed. The Commission also notes the deletion of turbines 53 through to 60 would provide an additional buffer separation west of the Collector village.

Aircraft/Aviation Safety

The community raised concern with the ability of local aircraft to undertake agricultural aerial spreading and spraying in addition to impacting on the ability of the NSW Rural Fire Service to combat fires due to the height of turbines.

The proponent advised the Commission that crop spraying is usually carried out under calm or light wind which would limit any impact to approximately 600 metres from the nearest turbine. The proponent also noted that aerial spraying has not occurred in the Collector area (adjacent to the site) for over 12 years as the land is primarily used for livestock (sheep) grazing.

The Commission also notes that the relevant aviation authorities, and the Rural Fire Service, have not raised any significant concern with the proposal relating to aviation safety.

Social and Economic impacts

Economic impacts, both negative as well as positive were raised at the public meeting and in submissions and correspondence.

The Commission acknowledges that the proposal will have both positive and negative impacts and that some issues have been socially divisive. The Commission considers that any negative impact needs to be weighed against the potential benefits from the wind farm.

Construction traffic

The Council raised concern with the transport requirements during construction indicating they will be considerable, both in relation to the delivery of turbine components and structures, and the materials needed to secure them in place. The Commission acknowledges Upper Lachlan Shire Council's concerns about traffic impacts associated with the sourcing of concrete. The Commission understands the Proponent is pursuing the option of providing an onsite batching plant to reduce the number of truck movements required for the project.

The Council also raised concern about the route project vehicles would use and the impact on the existing road network should they access the site from the southern end of Lerida Road South. Council also sought to ensure vehicular access to the project was from the Hume Highway onto Lerida Road South to limit the potential conflict between local and project vehicles, particularly during construction.

The Commission acknowledges Council's concerns and has modified the recommended conditions to manage construction traffic and access impacts of the Project

Community Consultation

Speakers at the public meetings raised significant concern regarding the conduct and behaviour of the proponent's representatives and the perceived lack of an effective response from the Department.

The community members advised the Commission that they have actively engaged in the planning and assessment process in good faith however they are concerned that their specific questions and issues have not been addressed through the assessment process.

The *Draft NSW Planning Guidelines: Wind Farms* states '*consultation needs to be genuine and aimed at identifying and considering options for eliminating or reducing impacts, not merely informing communities*'. The Proponent has argued this has been achieved through: the preparation of a community engagement program; stakeholder identification and consultation; use of active and passive engagement techniques; phone and email contact arrangements for the community; community newsletters; one-on-one meetings; hosting three community open house events held at Collector Memorial Hall; in addition to the use of various print media including the Goulburn Post, Town and Country Magazine and the Gunning Lions Club Noticeboard.

The Department advised the Commission that it is satisfied the proponent has met the requirements for community engagement. In addition, the Department advised the Proponent implemented a Community Consultative Forum, which was identified in the *Draft NSW Planning Guidelines Wind Farms* as a minimum community engagement provision, noting the project was lodged prior to the draft guidelines being released.

Following a review of the supporting documentation, the Commission finds that while the level of community consultation has met the relevant community engagement requirements, it has not been best practice and has exacerbated tensions within the Collector community.

All the Government agencies that the Commission has met with, at both the local and state level, agreed that the wind industry (in general) could do more in relation to community engagement and consultation. The Commission considers that community consultation is essential and it is clear that more could have been done in this instance.

Other Issues

The issue of how the proposed Community Enhancement Fund (CEF) would be managed was raised. The Commission considers that a committee comprised of representatives of the community, the Upper Lachlan Shire Council and the proponent and one which is unrelated to the Community Consultative Committee should be formed to manage the CEF. The Commission have modified the recommended conditions to include a specific condition for this purpose.

Other issues raised in submissions and at the public meeting have been considered by the Commission and are largely addressed in the Department's Assessment Report. The Commission is satisfied that the recommended conditions provide adequate controls to manage these issues.

Commission's Determination

The Commission has carefully considered the proposal, its associated impacts, the Director-General's Assessment Report and stakeholder submissions.

The Commission has carefully considered the noise emissions from the turbines at some surrounding dwellings, but is satisfied that the levels would comply with appropriate standards. The Commission also acknowledges the community's concern about the potential for health impacts, however given the relatively low noise levels to be produced, the 2 km setback distance between the turbines and non associated dwellings and the advice from NSW Health the Commission is satisfied the noise from the wind turbines will not adversely impact on human health.

While it is acknowledged the project will have some amenity impacts, the project is consistent with Government policies for the generation of renewable energy and complies with the draft NSW Wind Farm Planning Guidelines.

The Commission has accepted the comments in the Department's assessment that the social and economic impacts do not outweigh the project's broader benefits in terms of renewable energy generation.

The Commission acknowledges the community's significant concern that the turbines will be highly visible from the public domain within Collector however the Commission is satisfied the visual impacts of the proposal can be adequately minimised and managed and has determined to approve the project as recommended by the Department subject to the following modifications:

1. Turbines 53 to 60 be deleted to reduce the visual impact of the wind farm when viewed from the public domain within Collector village.
2. Insertion of additional conditions addressing bush fire safety, the management of the Community Enhancement Fund, a construction traffic and management plan and the requirement for an Annual Environmental Management Report.

The instrument of approval is attached in Appendix 2.



Garry West
Member of the Commission



Brian Gilligan
Member of the Commission



Richard Thorp
Member of the Commission

Appendix 1

List of Speakers

PLANNING ASSESSMENT COMMISSION PUBLIC MEETING, COLLECTOR WIND FARM PROJECT

Date: Tuesday 29 October 2013, 4.00 pm & Wednesday 30 October 2013, 9.00 am

Place: Collector Community Hall, Bourke Street, Collector

Speakers:

Tuesday 29 October 2013

Ngambri Aboriginal Group – Shane Mortimer

Friends of Collector – Tony Hodgson & John Robson

Upper Lachlan Shire Council - Councillor Malcolm Barlow

NSW Landscape Guardians – Humphrey Price Jones, President

Clean Energy Council – Lisa Taylor

Charlie Prell

Douglas Bucknell

Jenny Bell (Edwards)

Rod Edwards

Michelle Edwards on behalf of Lyn Jarvis

Rodd Pahl

Maureen Poile

Garry Poile

Sam McGuinness

Barbara Byran

Lerida Creek Consultancy Pty Ltd – Douglas Bucknell

Felicity Poile

Frank Hannan

Michelle Edwards

Brett Edwards

Rodd Pahl on behalf of Linda Pahl

Jennifer Price Jones

Caillin Price Jones

Trista Batchelor

John Hoskins

Wednesday 30 October 2013

Collector Community Association – James McKay

Australian Industrial Wind Turbine Awareness Network – Douglas Bucknell

Michael Duck

Collector and District Historical Association Incorporated – Frank Ross, Executive

Velma McKeachie

Velma McKeachie on behalf of Fiona Mitchell

Velma McKeachie on behalf of Kyle Mitchell

National Industrial Wind Turbine Research Council – Rodd Pahl on behalf of Patricia Schneider

Jim Hutson - did not attend

Elizabeth Granger

Paul Vallely

Waubra Foundation – Charlie Arnott on behalf of Sarah Laurie

Mark Glover

The Agriculture Arts Residency Kenmore Limited – Paul Hodgkinson

Marcus Bryce Twible

Boorowa District Landscape Guardians – Sam McGuinness, Michael Inkster and Charlie Arnott