



Planning &
Infrastructure

***MODIFICATION REQUEST:
Silverton Wind Farm,
Silverton
MP 08_0022 Mod 1***

Extension of approval lapse date

Director-General's
Environmental Assessment Report
Section 75W of the
Environmental Planning and Assessment Act 1979

April 2014

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EXECUTIVE SUMMARY

Silverton Wind Farm Developments Pty Ltd (the proponent) has lodged a modification request to extend the project approval for stage 1 of the Silverton Wind Farm lapse date by two years to 24 May 2016.

A concept approval exists for stages 1 and 2 of the Silverton Wind Farm project. Stage 1 comprises the construction and operation of 282 turbines and a 24 kilometre transmission line connection to the Broken Hill substation. Stage 2 involves the construction of a further 316 turbines and a 305 kilometre transmission line connection to Red Cliffs in Victoria.

The legislative requirement for a mandatory Renewable Energy Target (RET) that has buoyed investment in the renewable energy sector is under review by the federal government. The situation has created uncertainty for investors in renewable energy, including Silverton Wind Farm Developments Pty Ltd, given that the policy settings enabling growth in this sector could be amended. Therefore the proponent has requested an extension to the project approval's lapse date so that the outcome of the review (expected in late 2014), and the government's response, can be considered.

In support of its application, the proponent submitted a modification application that outlined the justification for the project, assessed the impact on the community in relation to the delay, considered changes to the surrounding environment, and reviewed changes in relevant legislation and guidelines.

Planning and Infrastructure exhibited the modification report from 14 October 2013 until 1 November 2013. Ten submissions were received, including five from members of the public, or community groups. Four of the public submissions were objections while one did not object but raised issues for consideration. There were no objections from agencies.

The key issues identified in the assessment include impacts such as construction-associated traffic, visual impacts, ongoing uncertainty particularly for host leaseholders, and biodiversity impacts. Other considerations include changes since the original approval associated with noise and decommissioning, as well as comments with regard to water quality, water use and Aboriginal heritage.

Planning and Infrastructure has reviewed the modification application, the issues raised in submissions and the proponent's response to submissions. Planning and Infrastructure considers that a two year extension to the approval lapse date is acceptable in this instance and has recommended approval. In doing so, it has taken the opportunity to update a condition regarding radio communications to reflect consultation requirements with the NSW Government Telecommunications Authority, as well as update conditions for the decommissioning of turbines, to reflect the *draft NSW Planning Guidelines for Wind Farms*.

Planning and Infrastructure has also recommended that certain conditions be deleted from the concept approval and updated and incorporated into the stage 1 project approval. Such changes include a new condition for the establishment of a Community Consultation Committee (CCC) in line with the *draft NSW Planning Guidelines for Wind Farms*. The agency has also recommended the update of conditions in relation to operational noise by strengthening requirements for addressing tonal characteristics, and added a new condition dealing with low frequency noise.

Further, an additional condition is recommended, requiring the proponent to submit a plan of the final turbine number and layout that demonstrates, to the satisfaction of the Director-General, how the visual impact of the wind farm has been reduced.

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DEFINITIONS

Agency, the	Planning & Infrastructure (formerly the Department of Planning & Infrastructure)
CCC	Community Consultative Committee
Conditions of Approval	The Minister's conditions of approval for the project.
Department, the	Former Department of Planning (now Planning & Infrastructure)
Director-General, the	Director-General of Planning (or delegate).
EP&A Act, the	<i>Environmental Planning and Assessment Act, 1979</i>
EPA	Environment Protection Authority
Minister, the	Minister for Planning & Infrastructure (previously also known as the Minister for Planning)
NHMRC	National Health and Medical Research Council
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
Proponent	Silverton Wind Farm Developments Pty Ltd
RET	Renewable Energy Target
Site	Land to which Stage 1 of the project applies.
Stage 1	Construction and operation of 282 WTG and associated infrastructure, including a 24 kilometre power line from the Site to Broken Hill in New South Wales.
Stage 2	Construction and operation of the remaining 316 WTG and associated infrastructure, including a 300 kilometre power line from the wind farm site to Red Cliffs in Victoria.
SWFDPL	Silverton Wind Farm Developments Pty Ltd

1. BACKGROUND

On 24 May 2009, the then Minister for Planning granted project approval under section 75J of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to Silverton Wind Farm Developments Pty Ltd (the proponent) for Stage 1 of the Silverton Wind Farm project (MP 08_0022) and, under section 75O of the EP&A Act, granted concept approval for stage 1 and stage 2 of the Silverton Wind Farm project. The site is located approximately 3.5 kilometres north of the township of Silverton and approximately 25 kilometres north-west of the town of Broken Hill. The project location is shown in **Figure 1**:

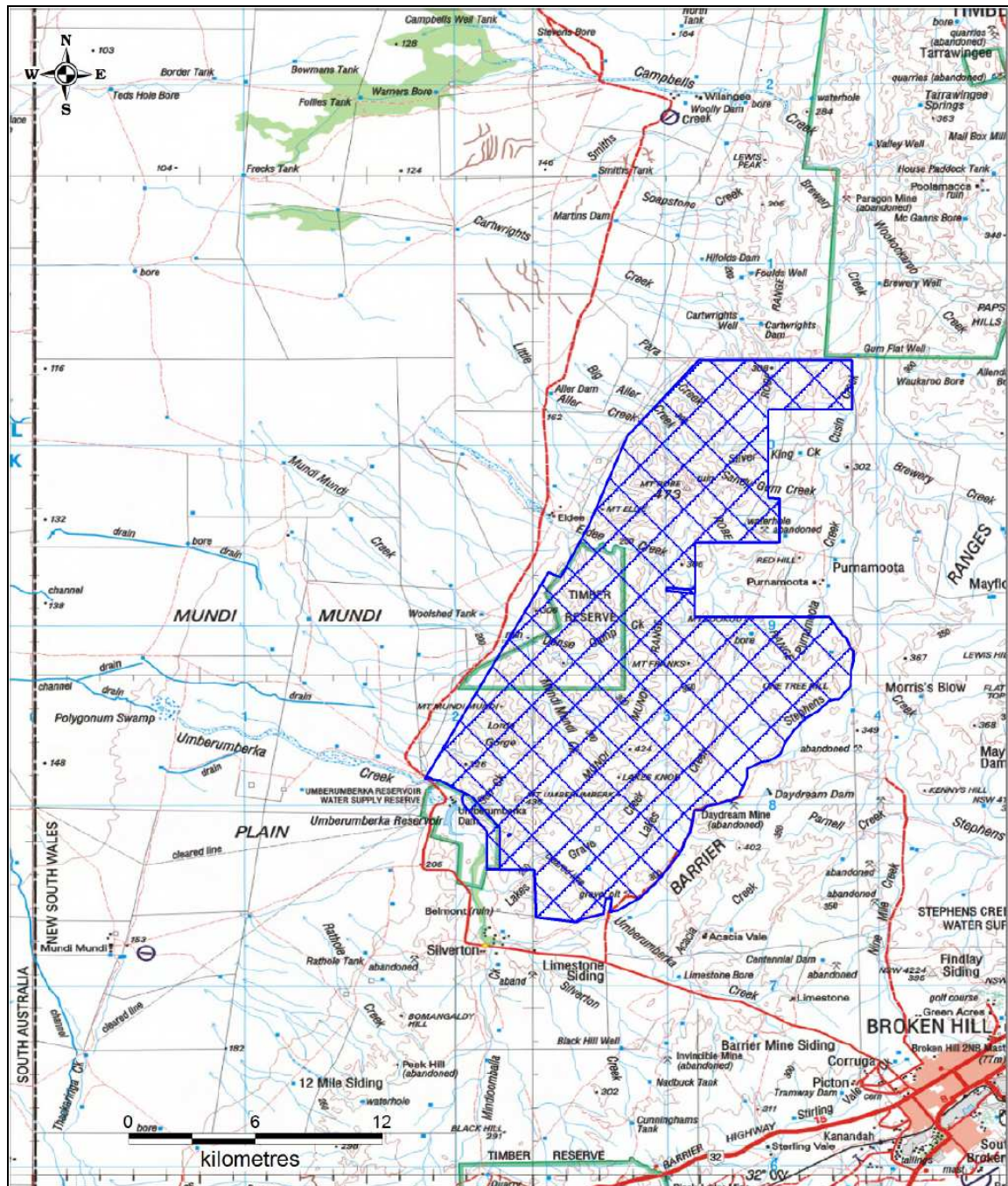


Figure 1 – Project Location

Stage 1 comprises the construction and operation of up to 282 wind turbines and associated infrastructure including, a transmission switchyard and a 24 kilometre transmission line connecting the switchyard to TransGrid's existing Broken Hill substation. Stage 2 comprises

the construction and operation of a further 316 turbines, including expansion of the transmission switchyard and a 305 kilometre transmission line connecting the switchyard to SP-Ausnet's existing Red Cliffs substation in Victoria, via the Buronga substation.

In the original environmental assessment (EA), the proponent sought to construct and operate 120 turbines as part of Stage 1. However, in its preferred project report (PPR) an additional 162 turbines were sought for the project approval. The Stage 1 project approval for the 282 turbines included stages 1a, 1b and 1c turbines as shown in **Figure 2**:

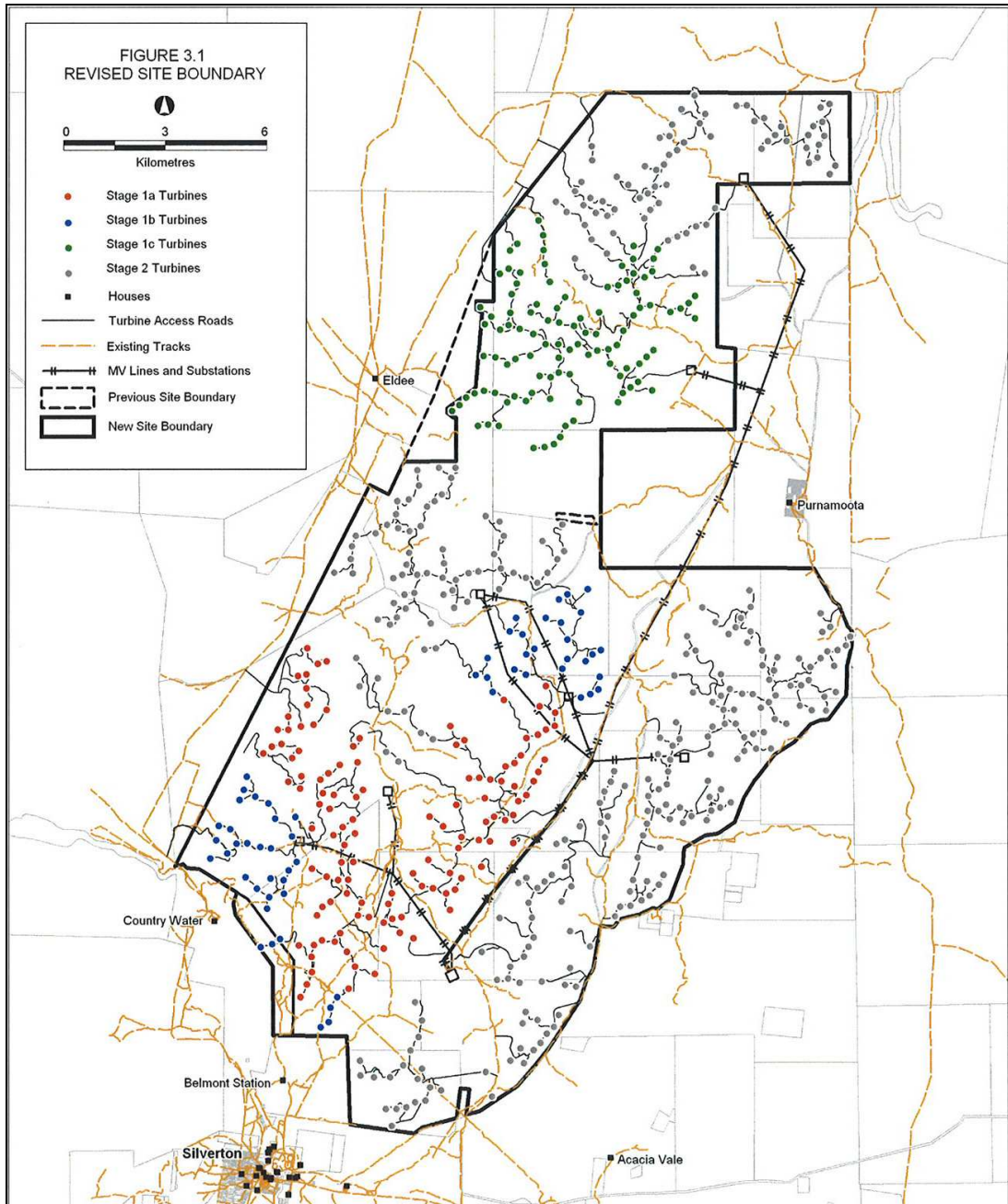


Figure 2 – Stage 1 and Stage 2 of the Silverton Wind Farm project

At the time of the approvals, Silverton Wind Farm Development Pty Ltd (SWFDPL) was a wholly owned subsidiary of Taurus Energy Pty Ltd, now known as Epuron Pty Ltd. In March 2012 Epuron sold the Silverton Wind Farm project development rights to AGL Energy Ltd, which is now the parent company of SWFDPL.

2. PROPOSED MODIFICATION

2.1 Modification Description

Condition 1.5 of the Minister's project approval for stage 1 (MP 08_0022) specifies that approval for the project will lapse five years from the date of approval (24 May 2014) unless the proponent has confirmed, to the satisfaction of the Director-General, that orders have been placed for turbines, or demonstrated that work the subject of this approval have been completed on this site before that time. SWDPL is seeking an extension of the project approval by two years to 24 May 2016 (MP 08_0022 Mod 1).

3. STATUTORY CONTEXT

3.1 Continuation of Part 3A

In accordance with clause 3 of Schedule 6A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), section 75W of the EP&A Act (as in force immediately before its repeal on 1 October 2011) continues to apply for the purpose of a modification of a Part 3A project. Consequently, this report has been prepared in accordance with the requirements of Part 3A and the associated regulations, and the Minister (or his delegate) may approve or disapprove the modifications under section 75W of the EP&A Act.

No lapse date was conditioned for the concept approval. However, following the repeal of Part 3A of the EP&A Act, Stage 2 would only be able to proceed if a new development application is lodged as State Significant Development, and consent granted.

3.2 Permissibility

With the exception of a small section of the transmission line to Broken Hill, the site on which the Silverton Wind Farm is located is within the unincorporated area administered by NSW Trade & Investment – Crown Lands Division (Crown Lands) which acts as landowner on behalf of the Crown. Therefore, local government instruments are not applicable to works within this area.

The unincorporated area of the proposed wind farm is currently managed by four lessees that hold General Purpose Leases issued for grazing by Crown Lands granted under the *Western Lands Act 1901*.

Under section 35XC of the *Western Lands Act 1901*, Crown land that is the subject of a General Purpose Lease may be leased for special purposes, but only with the written consent of the lessee. The lessee would receive remuneration from the wind farm operator. Wind farm tenure would be provided by a Special Purpose Lease, while existing grazing leases would continue, and current land use remains largely unaffected.

A number of deeds and agreements are in place between Crown Lands, the four leaseholders and the proponent that would be subject to separate review and activation by the parties to those agreements. The Special Purpose Lease is a separate legal matter between the subject parties, and lies outside the scope of Planning & Infrastructure's assessment.

Following a declaration by the Minister for Planning on 27 February 2008, the project is Critical Infrastructure under the EP&A Act, as it had the capacity to generate in excess of 250 megawatts of power.

3.2 Modification of the Minister's Approval

Unless specified as part of a condition of approval, there is no automatic approval lapse period for projects approved under Part 3A of the EP&A Act. In addition, there is no provision under Part 3A which prevents a lapse period specified under the Minister's approval from being modified under section 75W of the Act, or which limits the time period to which the lapse period can be extended through such a modification process.

Lapse dates are imposed to provide some certainty that the project would be delivered within a reasonable time frame and to ensure that the impacts of development remain substantially the same as when originally assessed for approval. To date Planning and Infrastructure has not granted an extension for approval beyond five years for a wind farm. However, it should be noted that there has been some variation in lapse dates imposed for other energy projects. For example Marulan Gas-fired Power Station was granted a ten year approval and Bamarang Gas-fired Power Station had its five year expiry date extended to ten years.

While there is no precedent for an approval beyond five years for a wind farm, there is nothing to preclude the granting of this and all modification applications are considered on their merit.

3.3 Environmental Assessment Requirements

Section 75W(3) of the EP&A Act provides the Director-General with scope to issue Environmental Assessment Requirements (DGRs) that must be complied with before the matter will be considered by the Minister. DGRs were not formally issued for this modification, however, following discussions with Planning and Infrastructure, the proponent was requested to consider four key issues in lodging its modification request. These included:

- Justification for the request and ongoing need/justification for the project;
- Issues/implications for neighbouring properties and the Silverton township associated with a potential delay to the project;
- Changes that may have occurred in the surrounding environment, including ecological changes as a result of increased rainfall; and
- Changes that may have occurred in relation to applicable environmental guidelines.

3.4 Delegated Authority

On 14 September 2011, the Minister delegated his powers and functions under section 75W of the EP&A Act to Directors in the Major Projects Assessment Division in cases where the relevant local council has not made an objection, a political disclosure statement has not been made, and there are less than 10 public submissions in the nature of objections in respect of the modification request. As fewer than 10 public submissions were received, no political disclosure statement was made, and Council did not lodge an objection, the Director, Infrastructure Projects may determine the modification request under delegated authority.

4. CONSULTATION AND SUBMISSIONS

In accordance with section 75X of the EP&A Act and clause 8G of the EP&A Regulation the modification request was made available on Planning and Infrastructure's website. Although not specifically required to publicly exhibit a modification request under section 75W of the EP&A Act, the modification request was exhibited from Monday, 14 October 2013 until Friday, 1 November 2013 and advertisements were placed in the *Barrier Daily Truth* (Broken

Hill) and *Sunraysia Daily* (Mildura). The Modification request was exhibited at the following locations:

- Planning & Infrastructure, Information Centre, Sydney;
- Broken Hill City Council;
- Wentworth Shire Council;
- Silverton Hotel; and
- Nature Conservation Council, Sydney.

A total of ten submissions were received including five from members of the public or community groups.

4.1 Agency Comments

Of the five agencies that lodged submission, three advised they had no issue with the extension. Trade and Investment–Crown Lands Division and the Office of Environment and Heritage both made comments as follows:

Trade & Investment – Crown Lands Division:

- Notes that while reference is made that the proponent is working on utilising sand and rock from the Silverton Wind Farm site, no such application for a Crown Lands licence for these quarries has been received by Crown Lands; and
- Notes that a reference is made to submit a Traffic Management Plan to Planning and Infrastructure and the Community Consultative Committee only. The Traffic Management Plan should be also submitted to Trade & Investment – Crown Lands Division and Roads & Maritime Services.

Office of Environment & Heritage (OEH):

- Supports the extension of the approval by two years;
- While OEH generally agrees with the conclusion that increased rainfall since the 2008 survey period does not necessitate changes to mitigation strategies for biodiversity impacts, increased water availability in the landscape is likely to optimise goat breeding conditions. Therefore OEH considers that further development to avoid or minimise the impacts on biodiversity, particularly the Goat Management Plan is critical to the management of the Tawny Crevice Dragon as well as the overall biodiversity values of the development footprint;
- OEH considers other plans require development including: Site Restoration Plan, Recovery Plan for the Porcupine Grass – Red Mallee – Gum Coolibah Hummock Grassland vegetation community and associated threatened reptile fauna, the Vegetation Management Plan and the Adaptive Management Monitoring Programme for Bird & Bat Mortality. OEH requests that new documents relating to biodiversity be submitted for review; and
- OEH notes that the proponent's report contains a summary of recent legislative and administrative changes associated with Aboriginal cultural heritage which indicates that consultation with OEH is not required when the cultural heritage management plan is developed for the area. This statement is not consistent with the project approval and statement of commitments; both of which identify the need for consultation with OEH. These protocols must be developed in consultation with OEH, as per the project approval.

4.2 Public Comments

Of the five public submissions four were objections. One from the Silverton Village Committee Inc. (SVCI) did not object but provided the following comments:

Setback from Silverton

- Requests that with 282 potential locations and only 80 to 100 turbines proposed, the towers could be taken back from the face of the Barrier Ranges and out of the visual range of Silverton. The residents consider this would also address concerns about potential noise and infrasound.

Traffic concerns

- With tourism accounting for 90% of Silverton's income, SVCI is concerned about any impact to the tourism industry as a result of restrictions to traffic movement during construction, including coach operators, who run to tight schedules and may be deterred from coming to Silverton; and
- Considers it important that the development of the Traffic Management Plan is done through consultation with business owners and residents.

Four public submissions raised the following objections:

Uncertainty

- Leaseholders want certainty. A two year extension will add to the uncertainty and anxiety regarding the project;
- There is a lack of balance with the proponent wanting the lessee to agree to the extension, but without any reasonable commitment being made on the proponent's part regarding the building of the project;
- Leaseholders were assured verbally that the expiry date would not extend beyond 2014 by staff from Crown Lands from 2007 to 2009, however, now this modification application has been lodged with Planning & Infrastructure;
- One submission states that AGL were told by Planning & Infrastructure that no further time extension would be granted to this project;
- The proponent has had ample time to proceed and should not request an extension of the expiry date to assess the Federal Government's renewable energy targets;
- Leaseholders have been unable to plan, invest and expand business activities since signing lease agreements. Special Purpose Leases have undermined the ability to use the land for the original general lease purpose and have created stress for leaseholders;
- Oversupply of Renewable Energy Certificates has led to a poor return on investment. This, together with rising power costs has resulted in a decline in power use and the price for certificates. This should have been identified in due diligence undertaken by AGL prior to purchasing the project;
- Wind farms are no longer essential to the energy portfolios of power companies, as indicated for the low price paid by AGL for the SWFDPL project;
- A further delay in remuneration for leaseholders is not the only consideration. Fewer turbines means less income which limits the feasibility of the project for lessees. With only 18% (60-80 turbines) of the original 598 turbines originally proposed ever to be built, remuneration for lost goat production and other activities on the station will not be met and will not drought proof any of the leasehold areas as stated; and
- The 2020 Renewable Energy Target review to be held in 2014 should not be the only driver for investment in green energy, but simply a guide for investment.

Forced leaseholder agreements

- Concern is raised about the nature of special purpose lease negotiations from the outset including letters of demand for leaseholders to sign agreements from the then Land & Property Management Authority (Crown Lands) and threats to resume land. One submission considers that an inquiry should be held into how an approval was able to be granted in the first place.

Visual impact

- There is a failure to understand that people would feel hemmed in by landscaping treatment options being proposed, such as planting trees to block views to the hills, and shows a lack of understanding of the value that wide open spaces have in Western NSW; and
- Concern that the wide open spaces which tourists, filmmakers and photographers seek will be lost to wind turbines.

Tourism Business

- Concern about the impact the development will have on tourism businesses which Silverton is heavily dependent upon;
- Failure to understand what it takes to run a sustainable business in Far Western NSW;
- Film, stills, workshops and tourism activities will be hampered or become impossible due to the wind turbine landscape as a backdrop; and
- Failure to consider the possible financial support to tourism operators beyond Silverton village. There are four more committees in operation in the Silverton area that are not referred to or acknowledged and that should be included in the Community Consultative Committee (CCC).

Noise

- Noise is a highly contentious issue. One presentation from a health professional provided by the proponent was not balanced by the opposing position;
- There is much evidence to suggest there are health impacts from wind turbines; and
- Silverton village residents have been offered a layout option with 5-6.5 kilometre separation from the village which has not been offered to lessees.

Traffic management

- Concern about traffic management during the construction phase with only one road into or out of Silverton. The use of bypass roads is only discussed in relation to Broken Hill, but not for Silverton which has only one road for access; and
- Dust impacts from traffic, further affected by periods of low rainfall.

Water use

- Concern about the amount of water required for the project particularly if potentially heading into a drought.

Water quality and quarrying

- Concern about digging quarries into the hills for the construction of the project;
- Concern about placement of the Silverton Mundi Mundi Creek sand quarry and the Silverton aggregate quarry at Lakes Knob because both are situated on the head waters for the Mundi Mundi Creek and the Eldee Station House Creek. Both creeks flow northwards and eventually turn to the west in the Barrier Ranges and out onto the Mundi Mundi Plains. This is the catchment for Lake Eyre; and
- Lessees want Planning & Infrastructure to provide guarantees that quarries and wind farm construction will not impact the environmental flows along ephemeral creek beds that flood five different stations, increase the soil moisture, and feed pasture vegetation.

Exaggeration regarding threatening processes

- One submission queries OEH assertions regarding the necessity for goat management, without referencing or deferring to the current lessees, acknowledging the damage caused by other herbivores that are run on a commercial basis on all stations, or the impact from native fauna on native vegetation; and
- One submission considers that an OEH statement made in 2009 that remuneration would replace any losses caused by removing goats from leasehold area under the Special Purpose Lease is misleading. It claims that goats have been sustainably managed for

160 years by five generations of pastoralists on the Barrier Ranges and Mundi Mundi Plains. Goat management should be given back to lessees involved, without the scrutiny of five different government departments and the project approval should be amended to reflect this.

Also of note

- One submission questions the level of commitment as the proponent has not ordered turbines as required under condition 1.5;
- Wind monitoring and quarry surveys have been the only activity on site;
- One submission queries the validity of the proponent's community survey claiming that skewed questions account for the low response rate; and
- Claims of poor communications with lessees: eg. lessees were not informed about important announcements in relation to the project ahead of the general public, including Epuron's sale of the project to AGL.

The proponent addressed each of the issues raised in a Response to Submissions report that was submitted to Planning and Infrastructure and placed on its website.

5. ASSESSMENT

The proponent has stated that the key economic driver for the Silverton Wind Farm development has been the national RET policy manifest in the *Renewable Energy (Electricity) Act 2000*. The Act set a mandatory requirement for a minimum proportion of electricity to be generated from renewable sources which, in 2010, was set at 41,000 gigawatt hours by 2020 for large scale renewable generation. This was based on an estimated 20% of Australia's electricity use in 2020.

Periodic review of the scheme is required under section 162 of the Act. While the 2012 review recommended maintaining the existing target of 41,000 gigawatt hours, and scheduling reviews every four years rather than every two, the necessary amendment to the Act to extend the review period was unable to be tabled ahead of the 2013 federal election. The newly elected government committed to proceeding with the RET review in 2014, as legislated.

The scheme's future is uncertain and this creates uncertainty for investment in renewable energy. As such AGL, as the proponent of the Silverton Wind Farm project, has requested a two year extension to the project's deadline so that the outcome of the 2014 review (expected by December) and the federal government's response can be considered.

The Director-General's assessment report for the project undertaken in 2009 identified the key environmental issues associated with the proposal to be: noise impacts (construction and operation); visual impacts; socio-economic impacts including tourism; biodiversity impacts; land-use conflicts (mineral exploration) and cultural heritage impacts. This report will consider new impacts and any substantial change to impacts already associated with the project.

Planning and Infrastructure has reviewed the proponent's modification report, submissions from both agencies and the public, and the proponent's response to those submissions. The agency has identified that the key issues with regard to extending the expiry date are factors associated with socio-economic impacts and biodiversity changes. In addition, the agency addresses responses to other issues raised regarding Aboriginal heritage, noise, water quality impacts from quarrying, and water use, and considers the modification in the context of the *Draft Wind Farm Guidelines 2011*.

5.1 Socio-Economic Impacts

These include impacts to tourism businesses as a result of construction traffic; the visual impact to historic tourism in Silverton and to location shots for outback photography and film making; a failure to consider financial support to tourism operators beyond Silverton Village; further delays creating uncertainty for leaseholders who are unable to plan, invest and expand businesses; delayed wind farm income for leaseholders; reduced remuneration to leaseholders with only approximately 30% of the approved stage 1 wind turbines ever likely to be constructed; feelings of disempowerment for leaseholders surrounding the original agreement to lease.

Traffic issues

The impact from construction traffic was considered in the assessment of the original application. Concern was raised again during the modification exhibition about the impact to tourism operators, particularly delays for coaches and cars visiting Silverton along the only access road; safety and access issues for workers and emergency vehicles associated with sharing the road with over-mass and over-dimensioned vehicles; and dust during dry periods. Since the modification exhibition period closed, a proposal to potentially close part of the access roads to other traffic between 4am and 6am was brought to the agency's attention, with concerns about the impacts this would have for agricultural workers making their way to stations for work, shift-workers who live on Wilangee Road, and emergency vehicle access.

The proponent advised Planning and Infrastructure that it is involved in ongoing discussion with the Silverton CCC and RMS about a range of traffic management options including night time deliveries for turbine parts, possible road closure options and contingency measures. Through discussions with the CCC, and more specifically the Traffic Management Plan Workshop, the optimum delivery time was identified as between 4am and 6am for over-mass and over-dimensioned vehicles. The proponent has advised it is investigating all traffic management options including the permissibility of road closure, measures for maintaining emergency and other vehicle access, and permit arrangements with RMS. Following its investigation, it will report back to the CCC and its traffic management arm, and seek further input, before finalisation of its Traffic Management Plan.

Planning and Infrastructure considers that concerns surrounding traffic and transport, particularly during construction, were addressed in the original environmental assessment. Measures such as a commitment to liaise with the local visitor's centre and scheduling turbine parts delivery outside of key visiting times, are underpinned by conditions of approval for traffic management, including the requirement for a Traffic Management Protocol, air quality measures to be incorporated into the Construction Environmental Management Plan, a road dilapidation report, and consultation with key agencies. Any growth in the number of tourists since the original approval is not considered to alter proposed transport management measures.

Visual Impacts

The proponent estimates it would construct between 80 and 100 of the 282 approved turbines. As such the original assessment on which project approval was based is considered conservative.

Of the public submissions received, Silverton Village Committee requested that, with 282 turbine sites available, the turbines be removed from the face of the Barrier Ranges to take them out of site of the historic Silverton township. One public submission considered the proposal would affect the visual backdrop for film makers and photographers. Another submission considered that the proposed landscape treatments would not be an appropriate response, as part of the region's appeal is its wide open spaces.

Planning and Infrastructure considers that reduced turbine numbers will present an opportunity to lessen the visual impact, in particular to high-impact view locations, when determining the final layout. While optimum wind conditions are an important consideration to the viability of the wind farm, the agency considers that the visual impact should also be a key factor in determining the layout. To this end, the agency has recommended a new condition requiring that prior to the commencement of construction, a revised assessment of the visual impact be submitted for the Director-General's approval, that shows how a reduction in the visual impact has been factored into the final layout.

Uncertainty

The provision of a degree of certainty about whether a project will proceed is an important consideration for Planning and Infrastructure which, under Part 3A of the EP&A Act, imposes expiry dates as a condition of project approval. Uncertainty was an issue that was raised during the submissions process for the modification, with leaseholders particularly impacted by a further delay. Concerns include: uncertainty whether a promised income stream from hosting turbines will eventuate; potential for only a reduced income stream with approximately 30% of approved turbines proposed to be constructed; and future investments and site development on hold pending the development of the wind farm.

Planning for major infrastructure is inherently long-term and has a degree of uncertainty. Population growth, technological changes, energy efficiency measures, industrial development, the economic cycle and energy policies are all variables that impact on overall energy demand and the requirement for infrastructure. The proponent explained that its inability to proceed with the project stems from uncertainty surrounding renewable energy policy settings at a federal government level and has requested a two year extension so that the outcome of a government review can be factored into its decision.

Planning and Infrastructure acknowledges that an approval of the proposed modification will prolong the uncertainty for residents for up to two more years. However, it acknowledges the work that has been undertaken by the proponent to engage with the community and keep it up to date and informed. This is demonstrated by its initiative in establishing the CCC, ahead of any condition that may be imposed as part of a modification approval, as well as its prompt response to Planning and Infrastructure's own questions with regard to the project.

Lease Agreements

While the particulars of lease agreements are a separate legal matter from this assessment, Planning and Infrastructure notes concerns that have been raised. Further it is acknowledged that the special lease agreements and deeds have their own triggers and deadlines that are separate to project approval expiry date and these must be negotiated between the proponent, leaseholders and Crown Lands. As such there are mechanisms in place, including prior to commencement of construction that will provide some financial return to leaseholders and Crown Lands.

5.2 Biodiversity

The proponent's modification report assessed changes to ecology since the original biodiversity assessment was undertaken. Part of the methodology included a field survey and a review of climate data to determine the impact of increased rainfall in the area. The report found that despite increased rainfall since the 2008 survey period, the Autumn 2013 survey yielded similar results with the vegetation shown to be good in some areas, but poor in others where impacted by feral herbivores, in particular goats. The report concluded that mitigation measures that were proposed as part of the original assessment do not require change.

Planning and Infrastructure consulted with OEH which generally agreed with the findings of the report. However, OEH noted that increased rainfall recorded between 2010 and 2012

would have optimised goat-breeding conditions that would require strong management measures in the development of a Goat Management Plan (GMP).

One public submission questioned the wisdom of including goat management measures to be undertaken by the proponent as part of the approval, arguing that the impact of goats on the environment is exaggerated; that goat management should not be the domain of government departments, but rather remain with the leaseholders who have sustainably farmed them over many years; and that remuneration from hosting turbines would not replace losses caused by removing goats from leasehold areas.

Planning and Infrastructure has considered the issues, and notes that feral goats are listed as a Key Threatening Process under the *Threatened Species Conservation Act 1995*. The modification report highlighted significant impacts goats have had on ground cover and tree regeneration. OEH is particularly concerned about the threat goats have to the habitat of the listed Tawny Rock Dragon. Planning & Infrastructure maintains its support for the development of a GMP, noting that the aim is to strike a balance between the ecological outcomes and landholders' economic considerations, by maintaining a population level where impacts to biodiversity are minimised and land managers have continued goat harvesting opportunities. The development of a GMP – underpinned by Statement of Condition (SoC) 39 from the proponent, that would be incorporated into an overall Vegetation Management Plan – does not prescribe goat management measures, but rather provides a private funding opportunity to manage the land in consultation with relevant stakeholders, including Crown Lands and leaseholders who would ultimately have a final say.

A Goat Management Plan, together with a Vegetation Management Plan, a Recovery Plan for the Porcupine Grass – Red Mallee – Gum Coolibah hummock grassland vegetation community and associated threatened reptile fauna, and a Bird and Bat Adaptive Management Protocol, were part of a suite of avoidance, mitigation, offset and enhancement measures to counter the biodiversity impacts from turbine construction and operation. These were incorporated into conditions of approval that include consultation requirements, particularly with OEH and Crown Lands, and which remain applicable.

5.3 Other issues

Noise & Health

Four out of five public submissions lodged in response to the proposed modification raised concern about the health impacts from wind farms. Particular concern was directed towards audible noise and infrasound emissions from turbines. The proponent also noted that the issue has been a concern of the Silverton CCC which has in response provided input with regard to the turbine locations.

There has been rising concern about noise emissions from wind turbines; particularly ultra-low frequency noise, or infrasound. The National Health and Medical Research Council (NHMRC) notes that infrasound is a constant presence in the environment and is caused by various sources, including air turbulence, ocean waves, ventilation units, traffic, aircraft and machinery. While Planning and Infrastructure acknowledges community concerns about health impacts, the agency is guided by the recommendations of NSW Health which accepts the NHMRC's position that there is no scientific evidence to positively link wind turbines with adverse health effects, including noise, electromagnetic radiation or shadow flicker. More recently (February 2014) the NHMRC released its draft information paper *Evidence on Wind Farms and Human Health* which reiterates this position.

The proponent has reviewed the issue of noise in the context of *draft NSW Planning Guidelines for Wind Farms 2011* that have been developed subsequent to the original approval. Planning and Infrastructure notes actions taken by the proponent, including individual discussions with all residents within 5 kilometres of a turbine location, providing

presentations to the community from a public health professional, sponsoring a site visit to an operating wind farm, and AGL's commitment to ongoing noise monitoring, to address concerns about noise and health impacts.

The original approval imposed a condition for a revised noise assessment for the final turbine model and turbine layout to ensure that at any residential receiver, the operational noise from the project does not exceed 35 dB(A), or the existing background noise level (L_{A90} (10-minutes)) by more than 5 dB(A), whichever is greater.

In addition to these conditions, the agency recommends amending the existing condition that imposes a 5 dB(A) penalty to noise levels where tonality is present, to make it consistent with current practice.

Further to this, the agency has recommended an additional condition that manages any excessive low frequency noise, defined as greater than 65 dB(C) during the day time and 60 dB(C) at night.

Cultural heritage

The modification report included a comment by the proponent that relevant statements of commitment for Aboriginal heritage centre on the development of strategies with the Local Aboriginal Land Council but do not explicitly require OEH consultation. Both Planning and Infrastructure and OEH do not agree with this view and consider that existing conditions for the protection of Aboriginal heritage and consultation requirements, including consultation with OEH for the development of a Cultural Heritage Management Protocol, remain valid.

Water quality impacts from quarrying

Concern was raised in a public submission about potential impacts to environmental flows and water quality from quarrying in the catchment of the Mundi Mundi Creek and Eldee Station House Creek, both of which eventually flow on to Lake Eyre. Further to this Crown Lands notes that it has not yet received an application seeking approvals for quarrying.

The proponent has advised that the two quarry sites are subject to a separate approvals process that is not part of the modification report, and that it is yet to complete its assessment for quarries and make an application to Crown Lands. As such it is outside the scope of the subject modification assessment.

Notwithstanding, the existing project approval includes stringent conditions for soil and water management controls, including erosion and sediment control measures, and procedures if groundwater is intercepted. Such measures are subject to consultation with appropriate agencies and shall be incorporated into a Water Management Plan as part of the CEMP to be submitted to Planning and Infrastructure for approval from the Director-General.

Water use

Concern was raised in one submission about water use for the project's construction, in particular with the possibility of the region being in a drought period. Water is required for the construction of concrete footings for the turbines, control rooms and substations and dust suppression, particularly during times of high winds.

The preferred primary water source is Umberumberka Reservoir with a capacity of 7,800 megalitres. Water from this reservoir is piped to Silverton and Broken Hill and augments the main drinking water supply from the Stephens Creek Reservoir (18,800 megalitres), which has been identified as a secondary source for the project.

Planning and Infrastructure is aware of water scarcity issues in Western NSW, noting that Umberumberka Reservoir has been empty eight times since records began in 1971, with the longest period being 21 months between mid 1981 and early 1983.

The proponent has discussed water requirements with both the CCC and Essential Water, which administers the reservoirs. The project will require water at a rate of 4 litres per second, which amounts to 360 kilolitres per day. Essential Water looked at the water requirement over a two year construction period in conjunction with the water requirement of Broken Hill and Silverton. Analysis confirmed that there is sufficient water supply to meet all requirements.

As would be the case with any project, a review of water availability would be required to be undertaken in a climate event such as a prolonged period of drought. The proponent has advised that in the event that water is not available from Essential Water, AGL would look to an alternate source, which may include bore water sources locally, or water transported by road. This would likely involve purchasing water from someone with an existing entitlement.

As part of the condition requirements for a Construction Environmental Management Plan, Planning and Infrastructure has recommended an additional requirement within the Water Management sub plan that the proponent demonstrate adequate water supplies and source, including demonstration that necessary approvals will be able to be obtained.

Decommissioning

Planning and Infrastructure has recommended revised decommissioning conditions to reflect the requirement for a Decommissioning and Rehabilitation Plan and a Decommissioning Environmental Management Plan in line with the *draft NSW Planning Guidelines for Wind Farms 2011* and recent approvals.

Other conditions

The concept approval included conditions for community involvement, compliance monitoring and tracking as well as incident reporting. It is considered appropriate to delete these conditions from the concept approval and add them to the current stage 1 project approval, and take the opportunity to update these conditions as relevant (eg. to reflect the requirement for a CCC that did not form part of the original approval). It is also recommended that a condition regarding radio communications be updated to reflect a requirement that consultation be undertaken with the NSW Government Telecommunications Authority.

6. CONCLUSION AND RECOMMENDATIONS

Planning and Infrastructure has reviewed the proponent's request and considers that an extension of the approval lapse period by two years to 24 May 2016 would be acceptable, subject to additional conditions including:

- The submission of a final turbine layout plan identifying the final number and location of turbines that demonstrates how the visual impact has been reduced. This plan must be submitted for the approval of the Director-General;
- Replacing existing decommissioning conditions with new conditions that reflect the *draft NSW Planning Guidelines for Wind Farms 2011*;
- Updating a condition regarding radio communications services to include consultation with the appropriate regulatory authority;
- A requirement to demonstrate adequate water supplies and source, including demonstrating that there will be no adverse impacts on other users and the ecosystem; and
- The establishment of a Community Consultative Committee (CCC) for the life of the project.

In addition, Planning and Infrastructure considers it appropriate to remove conditions contained in the concept approval for community information, consultation and information; compliance monitoring and tracking; and environmental reporting. It is recommended to update and insert them into the current stage 1 project approval of the Silverton Wind Farm, so that all relevant conditions are contained in the one approval and the proponent's obligations are clear. The updated conditions cover requirements for:

- A Community Consultative Committee (CCC);
- Complaints and enquiries procedure;
- A complaints management system;
- Provision of electronic information;
- A community enhancement programme;
- A compliance tracking programme; and
- Incident reporting.

It is RECOMMENDED that the Director, Infrastructure Projects:

- Notes the information provided in this briefing;
- Approves the modification request, subject to conditions; and
- Signs the attached modifying instruments (Tag A & B).

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