

Phil Shephard

From: Dominique Hodge
Sent: Friday, 11 February 2011 6:33 PM
To: Phil Shephard; Stephen Gash
Subject: FW: ICR3037 - Objection to Flat Rocks Windfarm
Attachments: Corro Min Albanese Windfarms Feb 2011 copy.pdf
SynergySoft: ICR3037

Dominique Hodge
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FOR RECIPIENTS EXTERNAL TO THE SHIRE OF KOJONUP

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-----Original Message-----

From: Phil Hurst [mailto:phil@aerialag.com.au]
Sent: Friday, 11 February 2011 8:18 AM
To: council
Subject: ICR3037 - Objection to Flat Rocks Windfarm

ATT: Mr Steven Gash
 CEO
 Shire of Kojonup
 Kojonup WA

Dear Mr Gash

Thank you for your correspondence dated 12 January 2011 regarding the proposed Flat Rocks Windfarm.

The Aerial Agricultural Association of Australia **objects** to the wind farm development in accordance with the Association's Windfarm and Powerline Policies – copies attached at the end of the Corro to Minister Albanese above. I note that this policy will be reviewed at the March Board meeting of AAAA and this is likely to see a stronger position taken in terms of opposition to all wind farms due to their impact on agriculture and aerial application.

AAAA's current formal policy position on all windfarm developments and wind monitoring towers is to **automatically oppose** such developments, unless the developer is able to clearly demonstrate they have:

1. consulted honestly and in detail with local aerial application operators
2. sought and received an independent expert opinion on the safety and economic impacts of the proposed development

42

3. clearly and fairly identified that there will be no short or long term impact on the aerial application industry from either safety or economic perspectives and
4. if there is an identified impact on local aerial application operators, provided a legally binding agreement for compensation over a fair period of years for loss of income to the aerial operators affected.

It is current AAAA policy not to provide specific operational comment on particular development proposals as the operational implications of each development will vary enormously depending on the site, the positioning of the turbines, orientation of affected paddocks relative to the turbines, the type of aerial application taking place, the aircraft used, the pilot's experience, the meteorological conditions, the site elevation, the position of any airstrip relative to the turbines and a range of other variables.

AAAA does not have the resources to undertake such on-site assessments, but recommends wind farm developers talk to the local aerial applicators who may be affected by the development, and seek independent expert opinion from an aerial application qualified pilot with an understanding of risk assessment and potential impacts.

AAAA believes that:

- All wind monitoring/evaluation towers—including guy wires—must be clearly marked to assist pilots to see them
- All wind towers, wind monitoring towers and associated infrastructure must be required to be removed when no longer in use

Please also find attached a recent letter to the Commonwealth Minister for Transport regarding the aviation safety threat posed by windfarm developments, including potential windfarm disturbed air plumes.

Who is AAAA?

The Aerial Agricultural Association of Australia (known as 'Four As'), represents the professional aerial application industry, providing critical aviation services for agricultural production and emergency response. Our operations cover crop spraying, fertilizing, sowing, locust and mouse plague control, firebombing and oilspill management – to name a few.

The Association members account for over 90% of all aerial application in Australia.

The Association has been active since 1958 and provides a comprehensive mix of training, education, professional development, conference and accreditation services to our members, as well as ensuring our elected representatives are kept up-to-date with our industry issues, problems and opportunities. We work closely with State and Federal agencies on a range of policy issues. Our website is at www.aerialag.com.au

The Association has its national office based in Canberra and is governed by a Board of Directors with representation from business owners in the States and pilots. The Board is in regular consultation with the CEO and application operators and meets formally on a regular basis.

AAAA's mission is to promote a sustainable aerial agricultural industry based on the professionalism of operators, pilots and staff and the pursuit of industry best practice.

What is Aerial Application?

Aerial application includes the spraying of agricultural chemicals onto crops, forests, pasture and grazing land to protect against the impacts of insect pests, weeds, fungi and a range of other threats to land

productivity.

Aerial application also covers the application of fertilisers - both liquid and granular - to crops, pastures and forestry, significantly lifting agricultural productivity. Aerial application also sows seed for crops (such as rice and occasionally wheat). Aerial application also spreads canola seed, pasture seed, native vegetation, and grass seed for environmental and mine site rehabilitation.

Aerial application helps to improve and stabilise the environment through erosion control and reduces soil compaction and disease transfer due to flying over the crop rather than passing through it.

Aerial application also includes the use of aircraft (both fixed-wing and helicopters) in the fire-bombing of bushfires, the management of oil spills for environmental protection, and vertebrate pest management and noxious weed control in National Parks and elsewhere.

Aerial application is generally undertaken at heights of approximately three metres above the ground for spraying operations to approximately 30 metres above the ground for topdressing, sowing and similar operations.

Aerial application directly employs approximately 2000 personnel comprising pilots, engineers, field staff, maintenance staff and administrators. A further 2000 people have part-time employment in the industry depending on seasons. The industry uses more than 300 specialist aircraft with supporting vehicles and equipment, together with established aircraft maintenance facilities throughout the country.

The industry has progressed considerably in knowledge, skill and degree of professionalism since the late 1940's image of the 'crop duster', partly due to the role of AAAA in professional development and training and representing the interests of both pilots and operators.

The modern industry is characterised by:

- sophisticated integrated management systems
- use of GPS for sub-meter accuracy
- world leading research and training on droplet behaviour
- strict regulation including licencing at both State and Commonwealth levels
- continuing professional development through the AAAA Spraysafe program and regular training courses
- modern aircraft and support equipment that represent significant capital investment

If you require any further information on the industry or our concerns with windfarms, please do not hesitate to contact me on the following numbers or this email.

Yours sincerely

Phil Hurst

CEO - Aerial Agricultural Association of Australia

Ph: 02 6241 2100

Fax: 02 6241 2555

Mob: 0427 622 430

Web: www.aerialag.com.au

Professionalism = aerial agriculture

FACT: Air ag pilots have a commercial pilots licence, hold a chemical distribution licence and undertake ongoing training throughout their careers

42

AERIAL AGRICULTURAL
ASSOCIATION OF AUSTRALIA
LTD.

ABN 13 002 501 886 • ACN 002 501 886

~

2 February 2011

The Hon. Anthony Albanese MP
Minister for Infrastructure and Transport
Parliament House
Canberra ACT 2600

Dear Minister

The AAAA wishes to raise with you a significant threat to legitimate low-level aviation safety that is not being addressed adequately at local, State or Commonwealth levels.

Windfarm developments are occurring across Australia with little to no regard for the impacts on aviation safety. It appears that neither CASA nor the Department of Infrastructure have an adequate head of power to address the aviation safety issues raised, and State and local authorities are not taking aviation safety into account in any meaningful way.

Of particular concern is the placement of meteorological evaluation towers (METs) in areas of known aviation activity without any requirement for mandatory notification or marking, or any system for legitimate low-level pilots to avail themselves of MET placement information.

AAAA has raised this issue consistently as a threat to aviation for years. However, the USA has just recorded its first aerial agriculture fatality as a result of a crash of an agricultural aircraft with an un-notified, unmarked MET mast and AAAA believes it is now time to seek more formal attention to this issue.

While *ad hoc* arrangements lead to AAAA being notified by *some* windfarm developers of the proposed location of *some* MET towers associated with windfarm developments, there remains no comprehensive and mandatory system that would enable legitimate low-level aviators to undertake adequate risk assessment of MET towers.

The current arrangements are not adequate to ensure all pilots are notified. AAAA only sends information it receives from developers to members, and this may not include other legitimate users of low-level airspace. While AAAA undertakes this safety information role on the basis of no assumed liability and best endeavours, there are still significant gaps in these informal arrangements.

AAAA has very limited resources and is rapidly approaching the point at which we will not be able to service the significant number of notifications being sent to us.

12

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AAAA suggests that a national internet database, accompanied by mandatory reporting and marking requirements for windfarm MET towers and open access for legitimate low-level airspace users, would be a significant improvement on the current unregulated environment.

AAAA notes that the practice of windfarm developers in the USA is to build masts that are generally 2 feet lower than the FAA height-based notification system. That is why AAAA has previously indicated to CASA that any height threshold put into CASA advisory material is open to manipulation.

A better approach would be to require the mandatory marking, in high visibility colours, on all masts or towers and the mandatory notification to a national database of any towers (including radio masts) that may pose a threat to aviation and which are not captured by the current tall structures requirements (which has an unrealistically high threshold). This may require CASA or the Department to acquire an additional regulatory head of power.

AAAA is also concerned with the lack of research into the possible downwind disturbed airstream effects from windfarms which may affect low-level aviation safety. AAAA believes that urgent safety assessment is warranted before any low-level operations are affected, given:

- the size/height of some individual turbines being proposed;
- the unknown cumulative effect across a whole windfarm;
- the placement of many wind turbines on elevated areas that may exacerbate known lee affects;
- the known downwind effects of semi-permeable barriers (as much as 15 times the height of the barrier – in the case of windfarms leading to a potential impact area of some kilometres downwind of the turbine); and
- the known effects of wake turbulence from aircraft that would have a similar wing area and speed as wind turbine blades.

The answer is not to penalise the long-established aviation industry. Inflicting buffer zones is another economic penalty unlikely to be compensated for by the windfarm developers and which may take more agricultural land – and aviation – out of production.

As windfarm development continues to increase in areas of agricultural and potential bushfire activity, AAAA is most concerned with an urgent and comprehensive response that forces windfarm developers to fully deliver their duty of care to legitimate low-level aviators.

A copy of the AAAA windfarm policy is attached for your information. This policy will be reviewed at the March AAAA Board meeting.

AAAA would be happy to meet with you or your staff to improve safety in this area and I can be contacted at the AAAA office in Canberra on 02 6241 2100.

Yours sincerely



Phil Hurst
CEO



Aerial Agricultural Association of Australia Windfarm Policy



December 2009

Introduction

Windfarms and their pre-construction wind monitoring towers are a direct threat to aviation safety – and especially aerial application.

AAAA has developed this policy so as to inform regulators, asset developers and operators alike of the need for action on their part to fulfill their duty of care to Australia's aerial applicators.

AAAA Windfarms Policy

AAAA has revised its policy on windfarm developers in light of misrepresentations of the AAAA position in a development application to government planning authorities.

AAAA's formal policy position on all windfarm developments and wind monitoring towers is to **automatically oppose** such developments, unless the developer is able to clearly demonstrate they have:

1. consulted honestly and in detail with local aerial application operators
2. sought and received an independent expert opinion on the safety and economic impacts of the proposed development
3. clearly and fairly identified that there will be no short or long term impact on the aerial application industry from either safety or economic perspectives and
4. if there is an identified impact on local aerial application operators, provided a legally binding agreement for compensation over a fair period of years for loss of income to the aerial operators affected.

It is AAAA policy not to provide specific comment on particular development proposals as the operational implications of each development will vary enormously depending on the site, the positioning of the turbines, orientation of affected paddocks relative to the turbines, the type of aerial application taking place, the aircraft used, the pilot's experience, the meteorological

conditions, the site elevation, the position of any airstrip relative to the turbines and a range of other variables.

AAAA does not have the resources to undertake such on-site assessments, but recommends wind farm developers talk to the local aerial applicators who may be affected by the development, and seek independent expert opinion from an aerial application qualified pilot with an understanding of risk assessment and potential impacts.

AAAA believes that:

- All wind monitoring towers—including guy wires—must be clearly marked to assist pilots to see them
- All wind towers, wind monitoring towers and associated infrastructure must be required to be removed when no longer in use

Recommendations to Government

AAAA recommends that government provide better information to all windfarm developers on their responsibilities for aviation safety, including raising the duty of care requirements established under *Sheather v Country Energy* (NSW Court of Appeals) for owners of assets that pose a known threat to aviation activities to provide for suitable marking and other safety initiatives.

There are a range of initiatives that the Commonwealth and CASA should actively pursue in developing a more appropriate response to manag-

ing the aviation risks from wind farm developments:

- CASA should develop regulations of wind farm developments and other tall structures for reporting and development approval purposes, placing a strong emphasis on protecting aviation safety.
- CASA should set a much lower than previously used height trigger for notification to CASA of developments - down to 50 feet outside an agricultural area and even lower in an area of known aerial application activity.
- CASA should work with Airservices Australia and any other relevant agencies to ensure that completed windfarms are included on suitable aviation mapping including WAC charts.
- CASA should develop a national tall structures database that is accessible by all low-level aviation pilots and which captures all wind-monitoring towers as well as completed wind farms. The database should also capture other tall structures such as radio masts etc.
- CASA should provide improved information to windfarm developers to ensure they are aware of their responsibilities.

Background

CASA does not have a clear pathway for windfarm developers to ensure the risks their developments are posing are appropriately managed so as to protect legitimate activities of low-level aviation operators.

In particular, previous CASA efforts to address this issue by requiring marking and lighting of certain towers above a certain height and within a certain distance of an airport misses the main risk to aviation and this is the wind monitoring towers as they are frequently lower than the height trigger, but still a threat to legitimate low-level aviation.

Wind monitoring towers are very tall in relation to aerial application operations, are erected within very short timeframes, are extremely difficult for any pilot to identify from the aircraft and are often not notified to aviation users because of the lack of a Government-mandated notification system and the desire of the developers to keep their positions a secret because of commercial issues.

There are two quite distinct issues arising from windfarms that affect aerial application:

- safety of the aircraft and pilot and
- economic impact on aerial applicators.

Safety Impacts

AAAA view is that the case of *Sheather v Country Energy* (NSW Court of Appeals) clearly established that anyone with infrastructure posing a threat to aviation must consider the risks that infrastructure poses to aviation safety and respond appropriately through marking or other measures to safeguard aviation operations.

This precedent is of critical relevance to windfarm developers although not apparently widely known to them or acted upon.

Economic Impacts

Safety is not the only consideration that is imposing additional risk and consequences on the aerial application industry.

The placement of wind farms in areas of highly productive agricultural land is leading to reductions in treatment areas of aerial application companies with no compensation for this externalization of costs by wind farm developers.

For example, placement of a wind farm may affect flight lines and application height or even whether the application can be conducted at all - leading directly to either an increase in cost or a reduction in income - and sometimes both - for aerial application operators.

In particular, AAAA is concerned that not enough consideration is being given through the State planning approval processes to the impacts of windfarms on productive agricultural land and the aerial application industry, remembering that it may not only be the land footprint where the windfarm is sited, but also land surrounding that for some kilometers where aircraft may have to maneuver to conduct aerial application.

At the very least, windfarm developers should be required to pay compensation to aerial applicators where it can be reasonably established that there will be an economic impact imposed on the aerial application company by the wind farm developer.

Operational Impacts

The following potential impacts on aerial application should be considered by all windfarm developers:

- positioning of wind farms may affect local aerial application operations, depending on the particular site. Impacts could vary from affecting flight lines to treatment height and accuracy, maneuvering areas and possibly take-off and landing splays if an airfield is nearby (see for example, CASA CAAP 92-1 for agricultural airstrips – www.casa.gov.au – search for CAAP 92-1.)
- it may not be the land or farm that the wind farm is to be situated on that will be affected. Neighbouring farms, especially any with borders close to the windfarm site, would need to be liaised with closely to ensure there are no impacts by imposing limits on the manoeuvring areas of aerial application aircraft.
- a key impact may not be the turbines themselves, but the positioning of any powerline that would lead from the windfarm substation back to the grid, or any other above ground powerline that would be put in to support the development. Again, consultation with local operators is the key, and if there are any concerns one alternative may be to mark any difficult to see sections of the wire with the new marking system developed by AAAA and Country Energy in NSW. AAAA has contacts for the relevant Manager in Country Energy.
- economic impacts could include increased costs due to longer flight times required to manoeuvre heavily laden aircraft around wind towers, a loss of accuracy due to being required to fly higher for safety reasons, an increase in liability due to the reduction in accuracy, or the complete loss of application jobs due to the landholder not wanting the area covered by windfarms to be treated.
- Sensible solutions are those generally worked out locally, and AAAA strongly recommends to windfarm developers that they engage with local aerial operators as early in the process as possible.

AAAA Activities to date

AAAA has done a lot of work to make it easier to mark guy wires and powerlines – including on wind monitoring towers – through amendment of the national standard on marking of wires so as

to use a new marker developed by Country Energy (NSW) with the cooperation of AAAA.

There is now little practical reason why wind towers and especially wind monitoring towers should not to be clearly marked at least.

In addition, AAAA has attempted to provide relevant information to developers through the Wind Energy Association, but this process/ advice is voluntary and consequently will not provide coverage of all developers.

AAAA also passes on information to members that has been provided to it by wind farm developers on the physical location of wind monitoring towers. However, only a few developers provide this information and again there is little doubt that many towers are going up unmarked and unknown until hopefully spotted by pilots during pre-application inspections.

More comprehensive safeguards must include a mandatory national system of communication of the position of all wind monitoring towers and the inclusion of this on a national database accessible by low level pilots.

This is a very real issue for topdressing and fire-bombing operations - as wind monitoring increases, so does the threat to legal aviation activities.

AAAA Windfarm Notification Process

AAAA tries to assist aviation safety by advising those of our members who use email and are on our email lists of the position of wind monitoring towers and also wind turbines when they are under construction and finally constructed, if advised by windfarm developers.

Windfarm developers are encouraged to provide these details (in lats and longs by email to AAAA) so that AAAA can pass them on to those members.

AAAA provides this facility on basis of it being information of a general nature only and the understanding that the information, for a range of reasons (including email failure, not all members being covered by email, or non-use by members, or operational shortcomings) will not provide any guarantees of aviation safety.



Aerial Agricultural Association of Australia Powerlines Policy



December 2009

Introduction

Powerlines present a threat to legal low-level aviation including aerial application—one that has caused the majority of aerial application accidents and the deaths of many pilots.

AAAA has developed this policy so as to inform regulators, asset developers and operators alike of the need for action on their part to fulfill their duty of care to Australia's aerial applicators.

AAAA Powerlines Policy

AAAA recommends that:

- The Commonwealth mandate a powerline safety program for all owners and operators of powerlines that would minimize the risks to legitimate low-level aviation and which would feature:
- the mandatory marking of powerlines in areas of aerial application and firebombing activity
- a national web-based database and mapping system, accessible by pilots, that would accurately identify the position of all powerlines and relevant infrastructure.
- the placement either underground, or aligned with paddock boundaries or road easements, of all new powerlines and powerlines being repaired in areas of aerial application and firebombing activity.
- Electricity network owners and operators should not be able to refuse the aerial agricultural industry permission to operate around powerlines, including flying under them where appropriate, as this is often the safer option.
- Electricity network owners and operators should be required by legislation to consult with landholders and aerial operators when proposing to construct a new powerline in farming areas, and to pay compensation to the farmer where this results in increased costs of aerial application as a result of forcing changes to flight paths.

Background

Most agricultural land in Australia is criss-crossed with powerlines and aerial application companies and pilots put enormous effort into managing these hazards safely, generally using a risk identification, assessment and management process in line with Australian Standard AS4360.

The agricultural pilot curriculum mandated by CASA includes training for the safe management of powerlines and AAAA has been active in providing ongoing professional development for application pilots that includes a focus on planning, risk management and a knowledge of human factors relevant to managing powerlines in a low-level aviation environment.

AAAA runs a specific training course for aerial application pilots entitled 'Wire Risk Management' to address these issues.

Every aerial application mission is planned to take account of the threat of powerlines and to manage them as safely as possible while still applying the essential chemicals to protect the crop.

In terms of due diligence, the aerial application industry is doing everything it can to reduce the risk of hitting powerlines.

This is in stark comparison to the very lax, on occasions hostile attitude of powerline companies to the threat their powerlines pose to aviation operations being conducted legally and under the regulation of CASA.

47

In some cases, it can be argued, the powerline companies' ongoing refusal to provide to aerial application companies the detailed mapping of the position of their network or to mark their wires to make them easier to see, is negligent.

Certainly, the courts (*Sheather v Country Energy*, NSW Court of Appeals) have found that powerline companies do owe a duty of care to all pilots and should mark their powerlines where they are an obvious threat to aviation safety.

AAAA has worked very successfully with one powerline company with coverage of most of NSW - Country Energy - on the development of a cheap and simple powerline marker that can help pilots keep visual contact with the position of powerlines in and around treatment areas. Unfortunately, these markers are not used in other States, although AAAA notes that Ergon Energy, with coverage of much of Queensland, has recently introduced the same markers and this may improve safety, although take-up rates are still very low.

AAAA's CEO acted as Chair of the Australian Standards Committee for the recent review of AS 3891 - Marking of Cables and their Supporting Structures. Unfortunately, it was not possible to secure a significantly improved approach to the marking of powerlines, especially in relation to low level aviation and lowering any thresholds for the mandatory marking of powerlines, such as long spans across valleys etc that have previously caused fatalities. However, a useful risk management approach was included in the standard to encourage landowners to consider the marking of wires in areas of known low level aviation activity. The key aim of the review was achieved however, and that was to permit the markers developed by Country Energy to be used legitimately under the Australian Standard which previously had no provision for them.

Agricultural areas and areas of probable bushfire activity would be two obvious places where powerline companies should be exercising their court-defined duty of care and marking powerlines so as to assist aerial agricultural and fire-bombing pilots manage another risk in an already hostile aviation environment.



FURTHER INFORMATION

If you would like more information on the vital and responsible role the aerial application industry plays:

www.aerialag.com.au

**Or contact us on:
02 6241 2100 ph.
02 6241 2500 fax.**

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**AAAA
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Mitchell ACT 2911**

42