

17 March, 2017
Department of Infrastructure and Regional Development,
GPO Box 594,
Canberra ACT 2601,
Australia.

Submission on “Modernising Airspace Protection” – Public Consultation Paper

Dear Sir/Madam,

Energy Networks Australia welcomes the opportunity to provide a submission to the Department of Infrastructure and Regional Development on their Public Consultation Paper – “Modernising Airspace Protection”.

Energy Networks Australia is the national industry body representing businesses operating Australia’s electricity transmission and distribution and gas distribution networks. Member businesses provide energy to virtually every household and business in Australia.

Energy Networks Australia supports the development of solutions that could reduce the risk and consequence of aviation impacts with electrical networks. As such, in reviewing the consultation paper, Energy Networks Australia in consultation with our members have identified an interest in Reform Proposal 3 – Mitigating Risks to Aircraft Flying Beyond Aerodromes, with the Policy Objective: To improve safety for the low-flying aviation sector (including commercial operations and aerial emergency search and rescue services) when operating beyond aerodromes.

The key outcomes of interest from Reform Proposal 3, are:

Outcome 1. *Ensure visual markers are provided on power lines, overhead cables and transmission lines, and other inconspicuous objects. Options include but are not limited to:*

- a. *Mandate the Australian Standard for power line marking in the CA Act;*
- b. *Develop voluntary guidelines for national adoption;*
- c. *Agree to industry self-regulation with relevant peak industry organisations;*
and
- d. *Develop a model framework for State, Territory or Local government to consider.*

Outcome 3. *Develop location-specific or hazard-specific obstacle charts to assist with pre-flight planning and situational awareness. Options include but are not limited to:*

- a. *Peak industry organisations, or individual operators, to commission (and fund) the development of location-specific or hazard-specific obstacle charts*

for their pilots/members, based on the obstacle data collected by Airservices under CASR Part 175.

Within this context, Energy Networks Australia, would like to propose the following recommendations for the Department of Infrastructure and Regional Development to consider in relation to these Outcomes:

Outcome 1 - for aviation authorities to institute a combination of Outcome 1, options (a) and (b) as above. We recommend that a high-level, performance-based Standard be developed to outline the principles regarding line marking, with a supporting Industry Guideline being developed to provide the detailed, nationally standardised processes to manage requests to install markers (generally in a cost recoverable arrangement) and to provide cost estimates.

However, Energy Networks Australia would only support this approach subject to satisfactory outcomes of the review currently underway for *AS 3891 - 'Air Navigation Cables and their supporting structures marking and safety requirements'*. Please refer to the attached explanatory notes for details.

Outcome 3 - As Energy Networks Australia does not manage member assets, and members do not have standardised data or systems, we recommend that CASA and Airservices liaise directly with our members to develop obstacle charts in high risk areas. We are happy to facilitate contact points if any issues are encountered.

It is to be noted that electricity networks may be extended or rearranged on a regular basis and currency of obstacle chart data is an issue to be recognised. Data security of any data collected regarding network assets is also a significant issue that will require careful consideration.

Energy Networks Australia would welcome any opportunity to engage further with the Department of Infrastructure and Regional Development on these issues.

Should you have any additional queries, please feel free to contact Bob Appleton, Energy Network Australia's Industry Standards Officer on (02) 6272 1520 or rappleton@energynetworks.com.au.

Kind regards,



John Bradley
Chief Executive Officer

As of 10th November 2016, the Energy Networks Association commenced trading as Energy Networks Australia. Our website and email has changed to energynetworks.com.au. Please update your records accordingly.

Explanatory Notes – Submission on “Modernising Airspace Protection”.

Background

In May 2014, the Office of the Director of Aviation Safety approached Energy Networks Australia with regard to potentially developing a standardised approach to improving aviation safety near power lines. As a result, Energy Networks Australia canvassed members on their approaches and procedures in relation to aviation safety and then met with CASA in June 2014 to discuss findings and potential issues that CASA had in relation to the aviation industry.

The key focus area CASA raised during these discussions was in regard to the Aerial Agricultural Association of Australia (AAAA) and their members’ safety near power lines. The AAAA had particular concerns with:

- The identification of high risk areas across the country and the investigation and/or development of better line-marking techniques within those areas; and
- The provision of electronic data on the location of all transmission line networks that can be utilized by aviation GPS systems.

A workshop was initially proposed between CASA and Energy Networks Australia members, however after an exchange of feedback from members with CASA, this approach was not pursued and no more interaction has taken place between Energy Networks Australia and CASA on this matter.

Following the release of the Public Consultation Paper – “Modernising Airspace Protection” released in December 2016 by the Department of Infrastructure and Regional Development, Energy Networks Australia and its members have had considerable discussion about which Key Outcome option would be most appropriate in the view of the industry and the possible risks, costs and liabilities involved. This is outlined in the detailed responses below, which support the recommendations summarised in Energy Networks Australia’s submission covering letter.

AS 3891 Review

The Australian Transport Safety Bureau (ATSB) refers to AS 3891, in their document “*Avoidable Accidents No. 2 – Wirestrikes involving known wires: A manageable aerial agricultural hazard*”. The Consultation Paper indicates that this is the standard referred to in Proposal 3, Key Outcome 1, which CASA has proposed mandating for power line marking.

A review of AS 3891.2 has just commenced by Standards Australia’s Technical Committee EL-010 and the scope of this review is currently being determined. The initial scope of this revision was specifically focused on reducing the prescriptive nature of the existing marker standards (for legal low flying applications). In particular, it was considering making them

performance-based and to open up competition to allow for the manufacture of alternative marking devices, that could be installed more easily.

However, Energy Networks Australia is aware that a sub-set of EL-010 committee members have asked that consideration be given to widen the scope of the review. This includes the proposal to incorporate Appendix A on Risk Assessment, into the main standard and changing its current content from informative to normative. If the revised standard is mandated as proposed by the Consultation Paper, the legal responsibility to provide markers on power lines could impose heavy-handed costs and resourcing implications borne by other stakeholders, as well as liability and risk consequences for Network Service Providers.

The prime objective of making Appendix A normative seems focussed around a consistent means of dealing with a multitude of different network owners, as the committee sub-set considered that interactions with members are not consistent. However, if Energy Networks Australia's proposal to develop an Industry Guideline is adopted, this would meet these needs and reduce the scope to mandate Appendix A in 3891.2. The guideline proposed by Energy Networks Australia would include detailed, nationally standardised processes to manage requests to install markers (generally in a cost recoverable arrangement) and to provide cost estimates.

Energy Networks Australia members would strongly disagree with any recommendation to make Appendix A of AS 3891.2 normative; particularly if mandated by aviation authorities or other statutory bodies.

Energy Networks Australia is also aware that some EL-010 committee members have asked that consideration be given to expanding the current description and definitions regarding other legal low flying operations from its current focus of aerial agricultural applications, to include other operations such as emergency medical, police operations, water bombing etc. Energy Networks Australia agrees in principle that the standard should extend coverage to other aerial operations.

The Consultation Paper Proposals

Reform Proposal 3, Key Outcome 1.

Energy Networks Australia recommends that CASA considers a combination of options (a) and (b), as explained previously. We recommend a high-level, performance-based Standard be instituted, supported by an Industry Guideline to detail processes for handling requests to quote on, or install, line markers. However, this recommendation is subject to our satisfaction with the update of AS 3891 as discussed above.

Energy Networks Australia believes that this approach would alleviate many of the concerns of the low-flying industry sector, whether planned or unplanned flying. It should be noted that power line markers are designed on the assumption that a pilot undertaking

intentional and legal low-level flying, is familiar with obstacles in the area involved and requires only a visual reminder of the exact location of the cables.

Energy Networks members are accountable for considering risks when building new infrastructure, of which aviation is one, whereas aviation industry participants are accountable for considering risks associated with flying in proximity to existing infrastructure, including implementing possible controls. Movement of aircraft near Energy Networks member assets that are associated with member activities (e.g. aerial patrols and emergency restoration of supply) remains the accountability of the energy network owner. As such, Networks have established guidelines to manage this risk, including a National guideline ENA NENS 08-2006 - 'National guidelines for aerial surveillance of overhead electricity networks'.

Energy Networks Australia members consider that peak bodies such as the Aerial Agricultural Association of Australia (AAAA) who's members undertake low flying aerial activities should develop and adopt their own guidelines to manage the risks of its members when working near aerial hazards, including overhead power lines. The development of these guidelines should be done in consultation with the Civil Aviation Safety Authority (CASA) and other key stakeholders, including Energy Networks Australia.

Reform Proposal 3, Key Outcome 3.

In regard to Key Outcome 3 for the development of location-specific or hazard-specific obstacle charts, Energy Networks Australia recommends that CASA and Airservices liaise directly with Energy Networks Australia members as the custodians of the data required. Member businesses do not have standardised asset management systems including spatial data systems and formats, and there is no coordinated repository of this data for the industry.

Members also identified that if this data was to be made available, CASA would need to ensure sufficient safeguards were implemented to ensure any data provided is kept secure and private.

However, Energy Networks Australia has identified that there is scope to improve communication of high level data requirements between aerial operators and network owners, and this could be included as a component of any future industry guideline developed, as outlined previously.

Whilst differences in spatial data platforms between network owners have been recognised as an issue, other problems have also been identified. These include differences in data volume and quality. Aerial operators generally require datasets consisting simply of coordinates of structure positions and conductor heights. However, in past examples, where this data has been supplied to an aerial operator, the data set was too large or incompatible with their system to allow for the aerial operators wire logging and tracking systems to handle and operate smoothly in a real-time flight environment.

Therefore, until this issue can be rectified, Energy Networks members advise aircraft operators planning low level flying activities, to ensure they verify the location of aerial lines *prior to* commencing low level operations as part of their risk assessment activities prior to undertaking works. A review of current risk assessment processes (including obstacle hazard identification) and work activity planning should be considered including updating pilot risk assessment training requirements.

It should also be noted, that to ensure safe emergency aerial management activities, Energy Networks Australia is aware that a number of our members provide data-feeds into controlled emergency services management systems that are used to identify the presence of MV and HV power lines. For example, the 'Emergency Management - Common Operating Picture' (EM-COP) system recently deployed in Victoria. As these systems have already cleansed this data for use for emergency service aerial activities, CASA may want to explore if access could be made available to other aerial work service providers.

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