

The Senate  
Select Committee on  
Wind Turbines

Final report  
August 2015

## **FULL LIST OF RECOMMENDATIONS— INTERIM AND FINAL REPORT**

### **Recommendation 1: interim**

1.5 The committee recommends the Commonwealth Government create an *Independent Expert Scientific Committee on Industrial Sound* responsible for providing research and advice to the Minister for the Environment on the impact on human health of audible noise (including low frequency) and infrasound from wind turbines. The IESC should be established under the *Renewable Energy (Electricity) Act 2000*.

### **Recommendation 1: final**

**6.5** The committee recommends that an *Independent Expert Scientific Committee on Industrial Sound* (IESC) be established by law, through provisions similar to those which provide for the *Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development*.

**6.6** The provisions establishing the IESC on Industrial Sound should state that the Scientific Committee must conduct 'independent, multi-disciplinary research into the adverse impacts and risks to individual and community health and wellbeing associated with wind turbine projects and any other industrial projects which emit sound and vibration energy'.

### **Recommendation 2: final**

**6.9** The committee recommends that the federal government assign the *Independent Expert Scientific Committee on Industrial Sound* with the following responsibilities:

- develop and recommend to government a single national acoustic standard on audible noise from wind turbines that is cognisant of the existing standards, Australian conditions and the signature of new turbine technologies;
- develop and recommend to government a national acoustic standard on infrasound, low frequency sound and vibration from industrial projects;
- respond to specific requests from State Environment Protection Authorities for scientific and technical advice to assess whether a proposed or existing wind farm project poses risks to individual and community health;
- provide scientific and technical advice to the relevant State Health, Environment and Planning Minister to assess whether a proposed or

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existing wind farm or industrial project poses risks to individual and community health;

- provide advice to the Clean Energy Regulator on whether a proposed or existing wind farm project poses health risks to nearby residents;
- provide advice to the federal health minister on whether a proposed or existing wind farm or industrial project poses health risks to nearby residents;
- publish information relating to the committee's research findings; and
- provide to the federal Minister for Health research priorities and research projects to improve scientific understanding of the impacts of wind turbines on the health and quality of life of affected individuals and communities; and
- provide guidance, advice and oversight for research projects commissioned by agencies such as the National Health and Medical Research Council and the Commonwealth Scientific and Industrial Research Organisation relating to sound emissions from industrial projects.

**Recommendation 2: interim**

1.6 The committee recommends that the National Environment Protection Council establish a *National Environment Protection (Wind Turbine Infrasound and Low Frequency Noise) Measure* (NEPM). This NEPM must be developed through the findings of the *Independent Expert Scientific Committee on Industrial Sound*. The Commonwealth Government should insist that the ongoing accreditation of wind turbine facilities under the *Renewable Energy (Electricity) Act 2000* in a State or Territory is dependent on the NEPM becoming valid law in that State or Territory.

**Recommendation 3: final**

**6.12 The committee recommends that the following provision be inserted into a new section 14 of the *Renewable Energy (Electricity) Act 2000*:**

**If the Regulator receives an application from a wind power station that is properly made under section 13, the Regulator must:**

- seek the advice of the *Independent Expert Scientific Committee on Industrial Sound* whether the proposed project poses risks to individual and community health over the lifetime of the project; and
- confer with the federal Minister for Health and the Commonwealth Chief Medical Officer to ascertain the level of risk that the proposed project poses to individual and community health.

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**If the *Independent Expert Scientific Committee on Industrial Sound* finds that the wind power station does pose risks to human health, the Regulator must not accredit the power station until such time as the federal Minister for Health is satisfied that these risks have been mitigated.**

**Recommendation 4: final**

**6.15 The committee recommends that a provision be inserted into *Renewable***

***Energy (Electricity) Act 2000* stipulating that wind energy generators operating in states that do not require compliance with the National Environment Protection (Wind Turbine Infrasound and Low Frequency Noise) Measure (NEPM) are ineligible to receive Renewable Energy Certificates.**

**Recommendation 5: final**

**6.20** The committee recommends that the *Independent Expert Scientific Committee on Industrial Sound* (IESC) establish a formal channel to communicate its advice and research priorities and findings to the Environmental Health Standing Committee (enHealth). The IESC should explain to enHealth members on a regular basis and on request:

- the national acoustic standards for audible noise and infrasound and how these standards are set and enforced to monitor industrial projects;
- the methodology of its research and findings relating to how infrasound and vibration can impact on human sensory systems and health; and
- research priorities and possible strands of research that the National Health and Medical Research Council (a member of enHealth) could fund and commission.

**Recommendation 3: interim**

1.7 The committee recommends that the Commonwealth Government introduce *National Wind Farm Guidelines* which each Australian State and Territory Government should reflect in their relevant planning and environmental statutes. The committee proposes these guidelines be finalized within 12 months and that the Commonwealth Government periodically assess the Guidelines with a view to codifying at least some of them.

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**Recommendation 6: final**

**6.25** The committee recommends that the proposed *Independent Expert Scientific Committee on Industrial Sound* develop National Windfarm Guidelines addressing the following matters:

- a national acoustic standard on audible sound (see recommendation 2);
- a national acoustic standard on infrasound, low frequency sound and vibration (see recommendation 2);
- a national standard on minimum buffer zones (see recommendation 6);
- a template for State Environment Protection Agencies to adopt a fee-for-service licencing system (see recommendation 9, below);
- a Guidance Note proposing that State Environment Protection Authorities be responsible for monitoring and compliance of wind turbines and suggesting an appropriate process to conduct these tasks;
- a Guidance Note on best practice community engagement and stakeholder consultation with the granting and holding of a licence conditional on meeting this best practice;
- a Guidance Note that local councils should retain development approval decision-making under the relevant state planning and development code for local impact issues such as roads;
- national standards for visual and landscape impacts;

- aircraft safety and lighting;
- indigenous heritage;
- birds and bats;
- shadow flicker;
- electromagnetic interference and blade glint; and
- the risk of fire.

**6.26 As per recommendation 4 of the committee's interim report, eligibility to receive Renewable Energy Certificates should be made subject to general compliance with the National Wind Farm Guidelines and specific compliance to the NEPM.**

**Recommendation 4: interim**

1.8 The committee recommends that eligibility to receive Renewable Energy Certificates should be made subject to general compliance with the *National Wind Farm Guidelines* and specific compliance with the NEPM. This should apply immediately to new developments, while existing and approved wind farms should be given a period of no more than five years in which to comply.

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**Recommendation 7: final**

**6.29 The committee recommends that the Australian Government amend the *Renewable Energy (Electricity) Act 2000* and the *Renewable Energy (Electricity) Act Regulations 2000* to enable partial suspension and point in time suspension of renewable energy certificates for wind farm operators that are found to have:**

- breached the conditions of their planning approval;
- had their operating licence suspended or cancelled;
- establish powers to be used when breaches of statutory obligations occur that require energy generators to 'show cause' ; and
- link the issuing of renewable energy certificates with certified net greenhouse gas reduction in the electricity sector.

**6.30 The committee recommends that the Clean Energy Regulator cannot accredit a power station until it is wholly constructed, fully commissioned and all post construction approval requirements have been met.**

**Recommendation 5: interim**

1.9 The committee recommends that the Commonwealth Government establish a *National Wind Farm Ombudsman* to handle complaints from concerned community residents about the operations of wind turbine facilities accredited to receive renewable energy certificates. The Ombudsman will be a one-stop-shop to refer complaints to relevant state authorities and help ensure that complaints are satisfactorily addressed.

**Recommendation 6: interim**

1.10 The committee recommends that the Commonwealth Government impose a levy on wind turbine operators accredited to receive renewable energy certificates to fund the costs of the *Independent Expert Scientific Committee on Industrial Sound*—including the funding of additional research—and the costs of a National Wind Farm Ombudsman.

**Recommendation 7: interim**

1.11 The committee recommends that the data collected by wind turbine operators relating to wind speed, basic operation statistics including operating hours and noise monitoring should be made freely and publicly available on a regular basis. The proposed *Independent Expert Scientific Committee* should consult with scientific researchers and the wind industry to establish what data can be reasonably made freely and publicly available from all wind turbine operations accredited to receive renewable energy certificates.

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**Recommendation 8: final**

**6.37** The committee recommends that all State Governments consider shifting responsibility for monitoring wind farms in their jurisdiction from local councils to the State Environment Protection Authority.

**Recommendation 9: final**

**6.46** The committee recommends that State Governments consider adopting a fee-for-service licencing system payable by wind farm operators to State Environment Protection Authorities, along the lines of the system currently in place in New South Wales.

**Recommendation 10: final**

**6.53** The committee recommends that the federal Department of the Environment prepare a quarterly report collating the wind farm monitoring and compliance activities of the State Environment Protection Authorities. The report should be tabled in the federal Parliament by the Minister for the Environment. The Independent Expert Scientific Committee on Industrial Sound should coordinate the receipt of State data and prepare the quarterly report. The Department of the Environment should provide appropriate secretarial assistance.

**Recommendation 11: final**

**6.57** The committee recommends that the National Health and Medical Research Council (NHMRC) continue to monitor and publicise Australian and international research relating to wind farms and health. The NHMRC should fund and commission primary research that the Independent Expert Scientific Committee on Industrial Sound identifies as necessary.

**Recommendation 12: final**

**6.61** The committee recommends that under circumstances where the regulatory framework provided for pursuant to recommendations 8 and 9 cannot be enforced due to a lack of cooperation by one or more states, a national regulatory body be established under commonwealth legislation for the purpose of monitoring and enforcing wind farm operations.

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**Recommendation 13: final**

**7.84** The committee recommends that the Australian National Audit Office (ANAO) conduct a performance audit of the Clean Energy Regulator's (CER) compliance with its role under the legislation. In particular, the committee recommends that the CER examine:

- the information held by the CER on wind effectiveness in offsetting

carbon dioxide emissions at both 30 June 2014 (end of financial year) and 3 May 2015;

- the risk management and fraud mitigation practices and processes that are in place and whether they have been appropriate;
- whether all public monies collected in respect of the *Renewable Energy (Electricity) Act 2000* are appropriate;
- whether there are financial or other incentives, including but not limited to, the collection of public monies under the *Renewable Energy (Electricity) Act 2000* that are distorting the CER's role in achieving the objectives of the Act; and
- whether the expenditure of public monies by the CER has been appropriately focused on achieving the *Renewable Energy (Electricity) Act 2000* objectives.

**Recommendation 14: final**

**7.88** The committee recommends that the Australian Government direct the Productivity Commission to conduct research into the impact of wind power electricity generation on retail electricity prices.

**Recommendation 15: final**

**7.105** The Renewable Energy Target should be amended so that all new investments in renewable energy between 2015 and 2020 will be eligible to create renewable energy certificates for a period of no more than five years. Existing investments in renewable energy should be grandfathered so that they continue to receive renewable energy certificates under the Act subject to annual audits of compliance.

**7.106** The Government should develop a methodology for renewable energy projects so that they can qualify for Australian Carbon Credit Units. The Government should develop this methodology over a five year period in consultation with the renewable energy industry and the methodology should consider the net, lifecycle carbon emission impacts of renewable energy.

**7.107** If the Government does not adopt the above changes, the Government should instead limit eligibility for receipt of Renewable Energy Certificates to five years after the commissioning of turbines.