Questions on Notice – Senate Environment and Communications Legislation Committee inquiry into Renewable Energy (Electricity) Amendment (Excessive Noise from Wind Farms) Bill 2012

> **CHAIR:** I will also ask a question on notice, as we have run out of time. In the Vestas submission they say that the amendments would be inconsistent with the Renewable Energy Act and the objects of the act, and they outlined the objects, being:
> (a) to encourage the additional generation of electricity from renewable sources; and
> (b) to reduce emissions of greenhouse gases in the electricity sector; and
> (c) to ensure that renewable energy sources are ecologically sustainable.
> Could you give some thought to that, see whether you agree with that proposition and give us some details on your view on that.
> **Mr Warren:** Certainly.

The esaa agrees that the proposed bill is inconsistent with the objectives of the Renewable Energy Act to encourage the additional generation of electricity from renewable sources, to reduce emissions of greenhouse gases in the electricity sector, and to ensure that renewable energy sources are ecologically sustainable.

The esaa has continuously supported a renewable energy target that delivers 20 per cent renewable energy generation by 2020. This proposed bill would make this target more costly and difficult to reach.

Senator XENOPHON: Perhaps you could take on notice—and I am sorry if we were talking at cross-purposes—the specific complaints of some of the witnesses at this inquiry, saying they cannot get some basic information in terms of being able to determine whether compliance takes place. It is almost a catch-22 situation. There are existing rules that relate to EPA guidelines with respect to wind turbines but, in order to determine whether there is compliance, they need this information. That is what has been put to us in summary by a number of witnesses who are attempting to research this issue.
Mr Warren : Sure. But in relation to noise attributable to wind farms, as I am sure you are fully aware, in order to collect that information accurately you need the cooperation of the wind farm operator because you need to switch the wind farm off in order to compare noise when it is operating with when it is not operating because ambient noise can constitute some, if not all, of the noise recorded near a wind farm.
Senator XENOPHON: But do you agree that, as a matter of public policy, considering that wind farms get renewable energy certificates, that there is in effect a subsidy in respect of that—I am not taking issue with that, because I understand the public policy desirability of renewable energy—isn't it reasonable that there be cooperation between the proponents and those who want to ensure that there is compliance with current EPA guidelines?
Mr Warren : Sure, but my understanding is that all wind farm projects are operating under certain licence conditions and are required to comply already with those standards that apply to them in each case. So I would assume by definition that that is occurring. If every time somebody wants to come and reassess the noise output of a wind farm and asks for it to be turned off, there is a degree in which that process can become onerous just because that wants to be repeated. But I would have thought that information would be available as a by-product of the approvals and licence conditions.
Senator XENOPHON: I think this will be my final question, because the chair has been very generous. Perhaps if it were put to you in writing what the specific concerns are—and we are waiting for some email threads from, I think, Professor Hansen in relation to this—that might clear up where the information asymmetry is occurring. That might be of more assistance to you to focus on the specific complaints that have been made about that information.

The Committee has provided the written information through Professor Hansen's answer to Questions on Notice.

The information provided does not allow us to respond other than to state that it is a matter for individual companies as to whether they provide such information to researchers.

We do note however that in terms of compliance, some jurisdictions require compliance reports to be made publicly available.

> **Senator BACK:** In his evidence earlier today, Mr Cooper was talking about the need to receive information on wind, speed and power output at the hub of the turbines. Is this information collected, and can it be made available? The point he was making was in terms of placing an application before the relevant authorities and that that sort of information would be necessary to be able to fully complete an application by a proponent.
> **Mr Warren:** I am not sure that I understand that, Senator. There are two stages. There is a wind farm that is operating and that has already received its approval, and there is a proposed wind farm where there are no turbines currently operating. Are you referring to the former or the latter?
> **Senator BACK:** I would be referring to the latter. You would have to draw upon information presumably from existing turbines to be able to provide the information, wouldn't you?
> **Mr Warren:** If there are many turbines in the region then wind speed is something you would need to measure on the site. It would depend on who owns the land as to how you acquire that information. I am checking with Ben whether the applicants, as part of the approval process, provide wind speed data. I would not have thought that was difficult. We can take that on notice.

Planning applications vary from state to state. However, as the esaa understands it, wind speed is generally measured before the project application is sought in order to prove the resource is commercially viable. Wind speed at hub-height is also measured once a wind-farm is operating. This is an important part of a wind generator's intellectual and commercial property.

There are also (relevant and responsible) authorities to whom wind companies will provide this information subject to appropriate protocols and confidentiality. For example, the Environmental Protection Authority (EPA) of South Australia requires wind farm developers to measure wind speed in order to determine the associated noise from wind turbines. The EPA's *Wind farms environmental noise guidelines* state that development applications for wind farms should contain information about "wind speed (at the noise measurement position)" and "the atmospheric conditions at the wind farm including wind speed and direction."

In New South Wales, the planning guidelines for wind farms require wind speed and direction to be measured at a wind monitoring location. It is unclear why the wind project should be the party responsible for making this information available to others who have no regulatory or other responsibility, when it already provides such information to the relevant authority.

In addition, transmission connected and semi-dispatchable wind farms in Australia provide real time wind speed and energy generation data to the Australian Energy Market Operator (AEMO). However, this data is provided under strict confidentiality due to its commercially sensitive status.

AEMO does provide data on power output from scheduled and non-scheduled generators which includes wind farms. This is available from AEMO's website: http://www.aemo.com.au/Electricity/Data/Market-Management-System-MMS/Generation-and-Load

Written Questions on Notice

> I refer to 2nd page, 5th paragraph of your submission: "would increase the costs of complying with the RET. This would flow through to higher electricity prices." In your opinion, would the cost of wind companies supplying copies of data which they already have, to confirm compliance with their planning permit, be cheaper to the electricity consumer than the relevant state and local councils having to conduct their own regulatory measurement?

The esaa's submission stated that the overall effect of restricting the supply of permits, such that this bill could do, would be to increase permit prices and consequently, the cost of complying with the RET. It is this cost which would result in higher electricity prices.

In terms of wind companies providing copies of data, companies are already required to submit reports confirming compliance with their planning permit in terms of noise. Given that this is already part of a project's compliance, there is no additional cost involved.

In Victoria, as part of the compliance process for wind farms, reports must be prepared by a suitably qualified and experienced independent acoustic engineer to demonstrate compliance with noise limits.

In New South Wales, the planning guidelines for wind farms "require the applicant to prepare and submit a Noise Compliance Report within 12 months of the commencement of operation of the wind farm," and there is also a requirement for the proponent to make the noise compliance report publicly available.

Based on this, it is unclear as to why the relevant state or local authority would have to conduct their own regulatory measurement when the information is already provided to responsible state authorities to demonstrate compliance with that authority's regulatory requirements.