Republic of Ireland.

31st January, 2011.

To: Australian Senate Committee,

Enquiry into Wind Farming.

Submission by Michael Muldoon.

I wish to make the following submissions.

When a wind farm was proposed within 700 meters of my home I formed a group and lodged an objection to the development. Permission was granted but no work has been done to date. Together with other members I tried to discover why there was such a rush to build windmills throughout the world. Originally, I felt that wind farms could make a contribution to Ireland's energy needs, if they were placed away from areas of habitation, but I now feel that electricity harvested from wind is in such an unreliable form that investment in it is wasteful. Here are some matters that I offer to assist you in your enquiry.

1) The issue is: if you take two economic units such as a pair identical modern countries one never used wind power and the other starts to invest in wind gradually increasing penetration up to 40% similar to Ireland's target, if both countries began with traditional thermal electrical generation plant before wind penetration, what is the saving on fossil fuel between the two. ? If there is no significant saving, then wind power is a waste of recourses.

There are many terms used in electrical generation which are very relevant to measuring any saving at 1 above, but I found that these term differed widely between Ireland and the USA and possibility Ireland and the United Kingdom. Here are some of the more important ones.

2) The actual output in kilowatt hours (units) of a wind farm in one year expressed as a percentage of the manufacturers rated output had the wind farm run continuously throughout that year. This may be referred to as "Load Factor" or "Capacity Factor" but these terms are used for other measurements by some.
3) The amount of conventional generating capacity that can be shut down and replaced by wind without endangering supply. This is usually called "Credit Capacity" "Capacity Credit" "Firm Capacity" or "Secure Capacity." If a term is not agreed in your enquiry, then a fresh name for this measurement will be required. It appears that there may be an attempt to confuse those trying to get to understand wind power by using term interchangeably.

It must be pointed out that the contribution a wind farm makes (or several wind farms) is the capacity credit divided by wind's portion of the system multiplied by 100 to give the percentage of fuel saved.

4) I have found some statements misleading:
"For every unit of power generated by a windmill, that's one less unit that has to be generated in a conventional power station" This is false, the correct statement is "units produced in a given period by the wind farm x credit capacity for that wind farm x the penetration level. i.e. a wind farm produced 100 mw of power in one week with a credit capacity of 10% and wind is 20% of the system. 100 /10 /5 = 2% saving of fuel.

5) In a system were wind is planned, the conventional plant is tailored to accept wind. Traditional plant is not suited to accommodate wind power. This is because a "no wind" system is designed to give the maximum power for the minimum fuel. Its efficient but slow to start up. Planners for wind change the conventional system from efficient plant to less efficient plant that can be stopped and started much faster, but is far less efficient.

   By so doing, they can say after the new plant that wind saves fuel. However this compares the new inefficient plant run with wind to the same plant run without wind. The real true test is the new plant run with wind to the original efficient plant. This is an important distinction which results in subsidies to thermal gas fired generating plants in Spain.

6) In Ireland consumers are forced to pay ever increasing electricity charges, power together with increased prices for fuel used for agriculture, transport and business. Some of this goes to finance wind farms. The wind farm companies get paid for the actual electrical power accepted into the grid system but the grid operators have to burn more fuel to back up and support wind. The cost of this extra generation is passed to the consumer.

7) The renewable energy industry (wind farming included) have a strong lobby group and they are helped in this by well meaning people who do not understand the true cost in money of wind energy and the cost in fossil fuel needed to back up wind. As the whole purpose is to save fossil fuel, this is ridiculous.

8) Your enquiry should try to establish if there was ever a saving in fuel directly attributable to wind farming. I suspect no fuel was ever saved in practice.

9) I draw your attention to the book "The Wind Farm Scam" by John Etherington, to the views of David Belamy botanist, and the Irish Academy of Engineers. All have come out against wind farming.

10)) I will not comment on the effect on wildlife and the environment in Australia, as I am not familiar with that country. It is severe in Ireland, Britain and the United States.

I wish you and your enquiry all the best and I hope that the Irish Government can have the courage to hold a similar enquiry here.

Yours faithfully.

Michael Muldoon