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Ms Sarah Friedel Electricity Directorate Utility Regulator Queens House 14 Queen Street Belfast BT1 6ED

Dear Ms Freidel,

Regarding: N.I. Electricity Medium Term Plan Phase 2.

I am concerned that vitally important issues concerning this proposed project are being ignored and request your comments on the following:

1. Wind Turbine Power Consumption.

Wind turbines require power input from the grid and with increasing numbers are causing an increasing requirement for more fossil fuelled spinning reserve at legacy power plants. Wind Turbines often require more energy from the grid than they supply back to it. This makes the enormous cost of re-structuring the grid on their behalf preposterous.

Input requirements are estimated at 20% of rated maximum output. Developers do not mention this fact that I can find anywhere and the figures in your paper would seem to ignore this as well.

A 1.5MW turbine has a nacelle and blade weight of over 90 tons and there is quite a lot of powered ancillary equipment within turbines such as oil pumps, heating, de-icing, lights, thyristor stacks for conversion, monitoring and control equipment for starting, braking, stopping, turning etc. Larger units are driven from the grid at times to stop the blades from warping in periods when no wind is available such as in heavy snow when a peak arises for home heating and the blades need de-iced at the same time. This power input must be available 24/7/365 to operate turbines from the grid and is guaranteed, unlike their output.

The UK as a whole generated an average of 21.7% of collective maximum rated output from wind generation in 2010 (latest figures I have found). Is the average in N.I. really better than 30% as claimed in the paper?

If so then take 20% from 30% and we have 10% left but now remove the substantial spinning reserve and the cost of restructuring the grid for things with a life cycle of twelve years and what does this appear to be from the economic perspective?

Then we must add maintenance costs. The first thing to go wrong will most likely be the gear-boxes which seem to last around 6 to 8 years and then the entire nacelle will need replacement at around 12 years. One can also say here that for 70% of the time they are draining energy from the grid which is not accounted for.

Many comments can be found on the web saying that this input operating power from traditional generation plants is to be supplied to wind turbines at consumers cost, is this the case in N.I. and if so where can this be found?

I read that in most cases input power is not even metered. This might explain why true figures for input costs cannot be found – they don't exist, but network operators will know what these costs are. Are these figures public in Northern Ireland?

This is not sound economics and I suggest you take advice from Professor Dieter Helm CBE of Oxford University. (He is Britain's leading energy economist).

## 2. The £44M Project.

This is misleading; those in the power (particularly wind) business here heard a senior engineering representative of NIE state at a recent seminar that it will cost £500M to create the infrastructure necessary to connect projected wind-turbines to the grid in N.I. This cost is to be passed on to consumers. I do not believe that the public is aware of this.

As you are no doubt aware it is very difficult to find objective information on wind-power and so one can easily surmise that promoters involved in the business of construction and operation of wind-energy are deliberately concealing information that might lead to sound judgement.

The race for construction is on now because developers know that the penny will drop in parliament shortly and the stupendous incentives. which have distorted the economy, broken up families and ruined the natural environment in many places, will be removed.

## 3. Misc. Facts.

In 2011 The National Grid Company (UK) paid wind generation £34M to switch off. (Charged on to the public of course).

Wind generation cannot replace thermal generation it can only supplement it when the wind is blowing at the correct speed.

Is a time of recession and growing fuel poverty a good time for such absurdly wasteful extra burdens on the public and business?

The increasing costs of power supplies will add to N.I's inability to attract inward investment.

The laws governing natural heritage and protection of important natural sites and species are being waved aside in favour of wind power. Millions of birds (some facing extinction) and probably even more bats are being killed by these things worldwide which will increase the necessity for insecticide use on farms and spoil much of the the remainder of what little bio-diversity we have inherited.

Are you aware that the USA has recognised this problem and the ABC (American Bird Conservancy) is suing several Federal agencies under their Freedom of Information legislation for withholding the truth about the destructive nature of wind turbines from the public? The loss of bats for various reasons and increasingly wind turbines is reckoned to be costing U.S. agriculture \$3.7B per annum.

There are many other issues such as human and animal health which are being ignored and Dieter Helm CBE stated last year; 'This will all end in tears.'

There are better solutions to the energy problem. Wind turbines are not green, this is a lie. They do not contribute to the reduction of CO2 emissions and in fact increase it. They are most definitely not sustainable and are as not eco-friendly, this is a blatant lie.

## Conclusion.

I have spent most of my life in R&D developing electrical power system monitoring and analysis systems for the UK and world utilities. I can safely say that there are more important issues than this knee-jerk rush towards a nonsensical and destructive future which seems deliberately designed to line the pockets of some at the cost of the environment and the public, not to mention future generations who will despise us for it.

Germany has signed up to the Brussels plan to reduce CO2 emissions and yet are building lots of new coal-fired power stations to back up their wind turbines and replace their nuclear stations of course. So much for carbon reduction. We have reduced ours in the UK by exporting our heavy manufacturing base to China and India who are putting an average of three new coal-fired stations on line every week. Our wind turbines have contributed nothing.

Considering the number of vitally important issues either ignored or for whatever reason not considered in this decision I conclude that the proposed project is most definitely not beneficial to the people of Northern Ireland now or will it be at any time in the foreseeable future.

If you would like me to take the time to go through these issues with you in person at your office, I will make myself available.

I look forward to your response.

Yours truly,

Ken McLeod