

consideration by the Aarhus Convention Compliance Team which will make a determination in due course (see Christine Metcalfe's article below).

These are interesting and potentially significant developments not only for the implementation of energy policy but for democracy, and in spite of the above reservations the

calling to account of the parties to the Aarhus Convention presents an opportunity for raising the profile of a whole variety of unanswered questions surrounding the current energy debate (including the reliability of the information with which we are supplied). For this we must be grateful to Pat Swords and Christine Metcalfe of the Avich and Kilchrenan Community Council.

Christine Metcalfe

Aarhus, wind farms and public accountability

'Landscape is not all external, it has crept inside the Soul' - John O'Donohue, 'Anam Cara.'

The simple beauty and truth of the statement above is undeniable. Equally so is the positive effect upon the human psyche of connection over past eons with mountain, moor, loch, forest and coastline; a connection now at risk from the collision course engendered by the needs of vital and protective preservation, and that of catastrophic industrialisation imposed by wind power within the current renewable energy programme.

Anyone who attends meetings or serves on their local Community Council will vouch for the often bitter and divisive nature of discussions about wind farms. Not unlike a form of civil war dividing communities, families and friends, holding differing views on the current express train of development and its justification in terms of man-made climate change. Perhaps we should therefore look at some of the facts which led to the unanimous support of our Community Councillors, at an unusually well attended meeting, for

efforts to challenge the Government's and EU's imposition of wind power technology without proper public oversight. These efforts included a complaint to the United Nations Economic Commission for Europe's Aarhus Convention Compliance Committee (what a mouthful!), which has now been accepted as valid for consideration. (Complaint Ref. ACCC/C/20/12/68.)

Briefly, our complaint was based on a question: what is the justification for all this financial cost and environmental intrusion? We believe that there is no supporting data for the claims of the authorities, and that they are both; (a) disseminating false and inaccurate data and; (b) by-passing proper environmental and economic assessments and legally-binding procedures related to democratic accountability.

Many MSPs believe that wind energy will assist Scotland in becoming the Saudi Arabia of renewables. Yet some European countries have greater experience of wind energy than Scotland and present a different image – Denmark, for example, could only

Christine Metcalfe has lived for nearly 22 years in a small Argyllshire glen which at one point was threatened by a wind farm application. The engagement with neighbours in successfully resisting this triggered concern for others suffering similar disruption to their lives, and a wish to unearth true facts relating to wind power. She serves on her local Community Council and was given a mandate to use the Aarhus Convention route to hold our Government & authorities to account for breaches to regulations found to be occurring.

export wind-generated electricity at a financial loss, and at times the price was zero Kroner per MWh¹. Research published in the (peer reviewed) Journal *Energy Policy* found wind energy to be of little value. To quote the authors of *Economic impacts from the promotion of renewable energies: the German experience*: "Although Germany's promotion of renewable energies is commonly portrayed in the media as setting a "shining example in providing a harvest for the world" (The Guardian 2007), we would instead regard the country's experience as a cautionary tale of massively expensive environmental and energy policy that is devoid of economic and environmental benefits."² In addition, even the German energy agency, which was set up to promote renewables, has had to point out the technical reality³ - you wreck your country's landscape and finances and you still need the fossil power plants for the backbone of your power generation⁴.

On the subject of pollution at home, examples are provided by those well documented site problems associated with The Braes of Doune predicted pollution, and Irish peat slide events. Another valid question must be whether we should be subscribing to the harm caused by mining in China (with its global monopoly) of the rare mineral Neodymium, needed for magnets used in turbine manufacture. A proportion of turbines have a magnet as part of their structure, weighing from 2.5 tonnes to around 40 tonnes in the largest models. The mining process is dirty and dangerous, involving repeated boiling in acid of the ore in order to extract the mineral. Among the waste products which are left to leech into the waterways and land in China is radioactive thorium (see similar report⁵).

Although a relatively small number of the very large offshore machines

currently contain Neodymium, a Parliamentary briefing paper⁶ states that:

"Currently, 4% of new offshore wind turbines use a magnetic drive system containing rare earths, which improves reliability and mechanical efficiency. This figure is anticipated to rise to 15-25% by 2015." (my emphasis)

Will these be transferred to land or dumped at sea as a means of 'disposal'?

An E.I.R. (Environmental Information Regulations) request has been lodged with SEPA regarding the burying on-site of worn out or damaged wind turbine blades. Plastic composites of this sort are designated wastes which must be disposed of properly in specified landfill sites. We all know of reports of bird (turbine strike) carcasses being routinely buried to avoid publicity, and RSPB have confirmed that they are looking into the need for a survey plotting all past mortality and/or disturbance events associated with wind farm developments and their access routes. With the vast areas of wild lands, moor and peat bog available to developers to use adjacent to or on these isolated sites, there is a clear temptation in respect of both activities.

Plans for future disposal have also been requested within the EIR request. If burying or incineration of turbine blades has been sanctioned, the reasoning behind such a decision has been requested. This is important because of toxins present in composite turbine blades which include Bisphenol A (BPA). The US Food and Drug Administration has voted to ban BPA from various plastic food containers after acknowledging that it might affect "the brain, behaviour and prostate gland of foetuses, infants and children." Typically, a standard 1.5-megawatt wind turbine

We believe that the authorities are disseminating false and inaccurate data, and bypassing legally-binding procedures related to democratic accountability

has approximately 10 tonnes of epoxy in its blades made from 6.6 tonnes of phenol and 2.2 tonnes of acetone. It *might* be true that environmental problems from epoxy -or polyester resins are more likely to be caused by incineration than by water-leaching of cured resins buried in soil. In any case, we obviously need full disclosure relating to both these potentially hazardous methods of disposal.

Another concern is the SNP government's decision to influence public opinion by targeting the very young. It has been reported that SNP ministers are planning to undermine community opposition to wind farms by having teachers tell schoolchildren that turbines benefit the environment, according to official guidance just published. This is dangerous indeed, and to fill young minds with one-sided opinions based on incorrect data is unforgivable. My personal experience of this was when confronted by a teenager and parent at a local meeting held to discuss wind power. With 'shining eyes' this youngster asked me 'So would you prefer nuclear power *instead?*' and claimed, almost unbelievably, that 'turbines are much better than pylons!' Even developers do not make the claim anymore that wind power is an 'instead of' technology, it being an 'add on', but trying to impart any balanced argument proved impossible.

The new policy relating to renewable energy on land owned by the Forestry Commission (Scotland) (hereafter FCS), raises other issues of public concern. Developers now have exclusive rights of search across the *entire* FCS estate in Scotland – roughly 10% of the country – and FCS are now actively pursuing the installation of wind farms within and adjacent to forestry plantations. The implications of this are many, and one, though perhaps viewed as of

lesser importance than financial and landscape impacts, is the fire risk from turbines. The many reports of turbines catching fire and tossing burning debris hundreds of yards suggest real potential for disastrous incidents, especially considering that FCS plantations hold many SSSIs (Sites of Special Scientific Interest) within their boundaries.

Turbines are also vulnerable to lightning strike, as events have shown. The danger of this is compounded by development in isolated areas where access for fire crews is impossible. Despite this, there are no known plans for the installation of CCT cameras linked to fire stations for monitoring of fire outbreaks, and local enquiries revealed that there are no special plans to deal with turbine fires. Currently, brush fires in some locations are just left to 'burn themselves out', a situation likely to be the case all over Scotland. Where is the *duty of care* to communities and households at risk within and on the fringes of FCS plantations?

In a reply to my question about this, the Energy & Climate Change Directorate stated that

"In terms of planning for and responding to incidents, this is an operational matter for the local emergency services as the Scottish Government operates on the principles of Integrated Emergency Management (IEM). Under IEM both preparation and response to emergencies should focus on the effects of events rather than their causes and be an extension of local emergency responders' day to day activities. The underlying aim of IEM is to develop flexible and adaptable arrangements that will enable effective joint response to any crisis whether foreseen or unforeseen." (Ref. Re.2012/0005666 on 10/02/12)

This reply (which can be provided in

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full on application) provides no reassurance or real answers to the issues raised.

For all who value our forests and wild land the picture is bleak unless a halt to current plans can somehow be negotiated. An added disadvantage is the new policy of Scottish Natural Heritage to no longer object to wind farm proposals unless they impact upon areas of Natural Heritage which are of National Interest, throwing an added burden upon planners often ill-equipped to determine environmental issues previously handled by seeking advice from SNH. The danger clearly is that this will lead to applications being approved through lack of expert knowledge.

It is fully recognised that no technology is without problems, but proponents of wind power have too often been 'economical with the truth' at best, at worst duplicitous or unwilling to acknowledge new or existing evidence. Accusations that the contents of this article amount to 'scare-mongering' are predictable, but groundless given that its veracity is easily checked. Indeed, space does not allow coverage of all the troubling aspects of wind farms (for example winter ice throws from blades of turbines too close to habitations), and others will no doubt have more examples or concerns relevant to this debate. It is hoped that those in the corridors of power will finally listen to those most affected and recognise:

1. The need to address the legal requirements documented in the Aarhus Complaint;
2. Adverse health effects of proximity to turbines now increasingly documented through reports endorsed by medical authorities;
3. Economic issues such as
 - (a) the imposition of both direct and

hidden subsidies;
 (b) unsustainable energy costs affecting those least able to absorb them;
 (c) dropping values of homes due to neighbouring developments;
 (d) the need for pollution/toxin-free disposal plans for turbine parts from both onshore & offshore developments (although the problem of disposal is acknowledged, no viable solution or costing has yet been presented to the public);

4. Negative effects on tourism from excessive numbers of turbines threatening endangered species and blighting the very landscapes valued by visitors to our unique and hitherto largely pristine landscapes and wild lands.

Whether through apathy or a misguided sense of helplessness, no society should permit those governing them to inflict physical, mental, or economic harm upon their citizens, and no responsible government should seek to do so. In the field of renewable energy it must be recognised that the precautionary principle - 'first - do no harm' - is being roundly ignored.

References

¹This was cited in the Danish engineering publication "Engineering". See: *New windmills will produce electricity that has no earthly use* [Nye vindmøller vil producere strøm til ingen verdens nytte] <http://ing.dk/artikel/93358-nye-vindmoeller-vil-producere-stroem-til-ingen-verdens-nytte> [Google language tools should translate this]

²Frondel *et al.*, Energy Policy 38 (8), 4048-4056 (2010) and available on: http://www.instituteforenergyresearch.org/germany/Germany_Study_-_FINAL.pdf

³<http://www.dena.de/en/press-releases/pressemitteilungen/2050-stellen-fossile-kraftwerke-60-prozent-der-gesicherten-leistung.html>

⁴<http://www.dena.de/en/>

⁵<http://www.dailymail.co.uk/home/moslive/article-1350811/In-China-true-cost-Britains-clean-green-wind-power-experiment-Pollution-disastrous-scale.html>

⁶www.parliament.uk/briefing-papers/POST-PN-368.pdf