SUBMISSION FROM STOP HIGHLAND WINDFARMS CAMPAIGN

Stop Highland Windfarms Campaign (SHWC) is an umbrella organisation for local windfarm opposition groups and individuals in the Highlands. It was formed in 2006 to enable local groups to network and share expertise.

TARGETS:

The 2020 targets for onshore wind generation appear to overlook the statistical fact that the average output of a wind farm is only around 25% of the installed capacity. Setting aside the other arguments against wind power generation, it would seem to be a physical impossibility to source and erect sufficient wind turbines in the time scale required.

It is not going to be possible to reduce carbon dioxide (CO2) emissions as expected, simply by erecting wind turbines. Grid stability and security of supply are adversely affected by strong winds. The power output of turbines follows the cube law with respect to wind strength and varies accordingly. A wind farm delivering 100MW at a wind speed of 33mph will only deliver 30MW at 22mph. Therefore fossil-fuelled plant has to be held on standby to accommodate these exaggerated variations in grid input. This increases CO2 emissions because plant is not being run at optimum efficiency or not on load. In addition, winds which gust above 60mph result in automatic shut-down of turbines until wind speeds fall below 60mph and output resumes. This has happened on numerous occasions, for example at the beginning of January 2012 wind farms were instructed to disconnect from the grid to allow the National Grid to manage the system with conventional generation. It follows that if wind power generation increases (because more turbines are erected) the problem of uncontrolled energy input/cut off to the grid, will also increase.

The latest costs per MWh, taking all costs into consideration, including back-up plant and nuclear decommissioning are :-

<table>
<thead>
<tr>
<th>Source</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Nuclear</td>
<td>£ 67.80</td>
</tr>
<tr>
<td>Gas-fired</td>
<td>£ 96.50</td>
</tr>
<tr>
<td>Onshore wind</td>
<td>£136.30</td>
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<tr>
<td>Offshore wind</td>
<td>£179.40</td>
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Should Scotland become independent it will be producing very expensive electricity. One has to ask the question “Why would England (or any country) with a mix of generation including nuclear, want to import expensive Scottish electricity?” In addition, Scotland’s expensive electricity will make it more difficult for high-energy use industries to remain competitive with other countries and the scandalous incidence of fuel poverty will increase further.

The consequences of attempting to achieve the targets will have very significant negative impacts on Scotland’s economy and its people. It is unbelievable that politicians and civil servants don’t know the facts about who will bear the costs – but rather more a case of political expediency not to admit them.
CHALLENGES:

(a) Technology - The question of security of supply raises problems in so far as it is accepted that wind turbines require 90% back-up capacity. This is best provided by using open-cycle gas turbines which means we have an increasing reliance on gas supplies. The more operational wind turbines there are, the greater the need for gas-fired back-up capacity. During the recent cold weather in Russia its export of gas was restricted due to high demand for home consumption. Consideration should be given as to whether there is sufficient gas storage to deal with problems of restricted gas imports.

(b) Grid infrastructure - Cockenzie 1200MW coal-fired power station is to be demolished and replaced by a 1000MW gas-fired power station. Hunterston 1288MW nuclear power station is due to close in 2016 and Torness 1364MW nuclear power station is due to close in 2023. This loss of 2672MW of generating capacity in Scotland means that it will have to be replaced with fossil fuel generation of some sort within Scotland or grid limitations between Scotland and England considered. The grid connection is presently 3.5GW across two circuits and is a limitation to the grand plan to export energy to England.

There exists an urgent requirement for a Risk Register to be drawn up in relation to the Scottish Government’s targets, available technology and infrastructure. Risk analysis should consider the volatility of wind power generation vs the need for firm load generation and reliable power supply; the necessity for spinning reserve and the consequences of increased breakdowns in conventional back-up plant caused by frequent ramping.

(c) Planning and consents – Our experience in Highland and shared information from wind farm opposition groups across Scotland clearly indicates that the planning system is neither adequately resourced nor fit for purpose to deal with wind farm applications. Planning departments appear to be under-staffed and in some cases, under-skilled, to cope with the current bombardment of wind farm applications. Planning officers rely on submissions from statutory consultees and informed members of the public to highlight shortfalls, omissions and incorrect factual information contained in Environmental Statements. In particular there are three major problems. Firstly the Environmental Statements are needlessly large, verbose documents and much of the text is cut and paste (and predictably appears in every Environmental Statement one battles through). It is necessary to separate out the developers’ smoke-screens and spin in order to identify what important information has been conveniently omitted. This is a daunting task for members of the public who suddenly find themselves threatened with an industrial development close to their homes and/or businesses. Secondly it is no secret that statutory consultees and other government-funded agencies have been instructed not to put obstacles in the way of wind farm developments. Consequently organisations with remits to protect Scotland’s natural heritage, watercourses and lochs, peatlands and historic culture, either raise no objections or concede to numerous “mitigation measures” where, in truth, objections should be lodged and maintained. Thirdly, despite the thousands of hours and thousands of pounds spent by ordinary people opposing proposed wind farm developments and despite planning committees recommending
refusal, Scottish Government ministers over-rule the considered views of the electorate and grant approval in their pursuit of impossible targets.

Reconciliation of national priorities with local interests is impossible as far as wind farm developments are concerned, unless there is an immediate moratorium on all developments currently in the planning process and the iniquitous subsidy paid to developers is stopped. There is increasing public awareness that power generation from wind farms has few if any benefits for the population as a whole compared with the very significant disbenefits which affect ordinary people. The millions of pounds paid to foreign-based wind farm developers and compliant landowners is considered to be totally unacceptable.

(d) Access to finance. From a lay perspective the recent statements from financial institutions and media reports throw considerable doubt on future investment in Renewables in Scotland. If the Scottish Government continues to guarantee the current subsidy levels in order to attract investment, the financial consequences for domestic and industrial electricity consumers give cause for serious concern. Figures produced by the Renewable Energy Foundation indicate that in 2010 £1.1 billion pounds was paid out in subsidy and in 2020 the figure will be in excess of £6 billion. This burden will be borne by consumers and it does not require a mathematics degree to understand the burden will be very significant. The recent study by Camco revealed there are already 6.4 million households in the UK living in fuel poverty and unless government policy changes, the figure will be 9 million by 2016. In Scotland it is estimated that one in three households is currently in fuel poverty. Ironically Alex Salmond vowed to eradicate fuel poverty in Scotland by 2016 – not increase it!

(e) Subsidy regime : The current subsidies for both on- and offshore wind power generation are excessive and unaffordable. This has already been recognised by a number of countries, including Holland, Canada and Spain and Scotland should follow suit before it becomes bankrupt.

In conclusion : SHWC member groups and individuals unfortunately have considerable experience of opposing wind farm developments both at local Planning Committee level and at public inquiries. The current system is unfairly balanced in favour of developers, with little or no genuine cognizance given to the negative impacts on the natural environment, the economy and peoples’ lives and health. Serious questions continue to be raised by energy supply engineers, financiers and scientists about the targets; the technology and cost-effectiveness of wind power generation to achieve them; the true value of reduction in carbon-emissions and the health and well-being of the increasing number of people whose lives are blighted by wind farms. Wind power generation is a gravy-train driven by big money and powerful organisations. However, it does not follow that the industry is in the best interests of Scotland or its people. Many of us maintain that it is not.

SHWC
29 February 2012