Economy, Energy and Tourism Committee

Inquiry into Scottish Government’s Renewable Energy Targets

Response by David Millar, OBE

A. Introductory Note
I have lived in Peebles for 21 years and for the last few years have had a second home in New Galloway, The Stewartry of Kirkcudbright. Our house in Peebles is 600 feet (200m) above sea level, in the lee of the Peebleshire hills. New Galloway is in the centre of the Galloway Hydro-electric power scheme, constructed in the 1930’s, in the foothills of the East Galloway hills.

B. Targets
Q. Are the 2020 renewables targets (for electricity and heat) achievable? If not why not?

A. Weather

1. With the advantage of having a home in Peebles and one in New Galloway, I have been able to study the effect of severe winter weather in both areas. The effect of this on wind turbines has been dramatic, both by reason of lack of wind and excess of wind.

2. My observations have led me to record the following situation:
   a) November 2009 to January 2010 – 3 months. Little or no wind owing to high pressure.
   b) December 2010 to February 2011 – 3 months. As above
   c) January 2012 – 1 month. As above.
   d) December 2011 – 1 month. Exceptionally strong winds.
   e) April 2011 – 1 month. Warm and sunny but no wind owing to high pressure.

3. Thus from November 2009 to January 2012, a period of 26 months, wind conditions have been totally negative for wind turbine generation in Peebleshire and Galloway for 9 months, or 36% of the period. These conditions also existed during the periods mentioned in many areas of Central and south Scotland, beyond the areas under observation.

4. The conclusion I draw is that climate change has negated, and will continue to negate, targets for onshore electricity generation by wind. 14 years sailing on the west coast of Scotland have led me to conclude that more wind will always exist offshore on the west coast than onshore, even in conditions of severe climate change. Serious study of wind strengths and patterns across Scotland is urgently needed however.

5. Hydro-Electricity. My experience of hydro-electric generation by study of the 1930’s Galloway scheme (the first of its kind in the world) and hydro schemes in the highlands is that they constitute a reliable source of electricity generation. This is particularly so when it is recalled that 2011 was the wettest year in Scotland since records began 100 years ago. But too much time has been lost by the refusal to construct new hydro schemes in the last 25 years to enable the 2020 renewables targets to be achieved by adding new schemes. There is therefore urgent need for the construction of new hydro-electric schemes, and a postponement of the targets from 2020.

6. Tide and wave power. In 1953 scientists at the University of Edinburgh were conducting two research programmes into generation of electricity by tide
and wave power. The then Conservative government withdrew research grants for these programmes, however, and the research closed. Only in the last few years has such research resumed in Scotland, and the early results for tide power seem hopeful. But again development will take all the time up to 2020.

7. Again, by personal experience of sailing for 14 years (1991 – 2005) up the west coast, I know of tides in Argyll and round the Isles of Mull and Skye which run up to 7 knots in sheltered waters where winds would not damage tidal turbines. There are also strong tidal streams in the Orkney and Shetland Isles but research and development may not be sufficiently advanced for tidal and wave turbine power by 2020, pointing again to a possible need to postpone that target date.

C. Challenges

c) Planning and consents

Q. How can national priorities be reconciled with local interests?

A. Wind turbines

8. In Peeblesshire, as in Galloway, local interests are strongly opposed to wind turbines being placed near areas popular with tourists, eg along the Southern Upland Way and Minchmuir near Innerleithen, and in the Glenkens area of Galloway. In the Glenkens a range of four long ridges on the east side of the Water of Ken Glen has been targeted by turbine developers, and planning permission has, sadly, been given for 18 turbines on the highest ridge. To give permission for the other three ridges to be violated by further turbines would constitute the ruination of the Glenkens as a scenic area popular with tourists, who fish and sail in Lock Ken and Earlston Loch.

B. Offshore wind, tidal and wave turbines

9. All that is needed to reconcile natural priorities with local interests in such cases is:
a) To switch from onshore wind turbines to hydro, tidal and wave power;
b) To develop offshore wind turbines instead of onshore ones;
c) If onshore turbines are insisted upon, to site them in the vast areas of barren moorland in Galloway, remote from human habitation and from areas of natural beauty. In these elevated moorland areas there is just as much wind as on ridges close to scenic areas — if indeed there is sufficient wind anywhere, as has been discussed above.

D. Conclusion

I welcome warmly the committee’s Inquiry into the Government’s Renewable Energy Targets, and encourage it to represent the views of the people of Scotland who are opposed to the concentration of onshore wind power in totally unacceptable sites, as opposed to the reliance on offshore wind, hydro, tidal and wave power, all of which I favour strongly.

David Millar

Peebles, 27 February 2012