

Alex Cole-Hamilton MSP
Leader of the Scottish Liberal Democrats
(via email)

7 December 2022

Dear Mr Cole-Hamilton,

Thank you for your letters of 14 November and 28 November regarding statistics on renewable energy in Scotland. You asked us to consider the claim that Scotland has 25 per cent of Europe's renewable energy potential and cited several examples. Upon reviewing these, we identified that the precise claim made is that Scotland has 25 per cent of Europe's potential offshore wind resource and it is this claim that we have examined.

This claim is based on external research reports rather than official statistics. This is outside our formal remit, but we have investigated these issues because, as a general principle, we consider that high profile numerical statements should be supported by sound evidence and clearly identified sources.

The claim originated in a 2010 publication by the Scottish Government¹, drawing on estimates that Scotland has an offshore wind potential of 25GW and Europe one of 102GW. However, these figures are derived from separate studies that are both more than 20 years old and not directly comparable:

- The estimate of Scotland's offshore wind potential² included all resource at least 5km from the shoreline in waters up to 30m deep, and assumed a turbine density of 8 MW per square km. It did not consider technical, navigational, or environmental issues that may affect installation of turbines.
- The estimate of Europe's offshore wind potential³ only included waters up to 20m deep, and assumed a turbine density of 6 MW per square km. It included only 10 per cent of the resource 0-10km from the shoreline, 50 per cent of the resource 10-30km from the shoreline and none beyond 30km. According to the report, they were based on a "very conservative approach" to come up with the likely "exploitable resource". The figure is also based on just 11 countries from the then European Community and excludes countries like Norway, Sweden and Finland which have large offshore wind potential.

In summary, the calculation for Europe's offshore wind potential was much more restrictive than that for Scotland. So, when the figures are used together, they give an inflated picture of Scotland's potential relative to the rest of Europe.

¹ [Scotland's offshore wind route map](#), Scottish Government, 28 September 2010

² Scotland's Renewable Resource 2001 [no longer available in full online], Garrad Hassan, 7 December 2001

³ [Wind Force 10](#), European Wind Energy Association, October 1999

We understand that Scottish Government and Ministers are already aware that this 25 per cent figure is inaccurate. On 15 November, the Minister for Green Skills, Circular Economy and Biodiversity, Lorna Slater (Scottish Greens), acknowledged in Holyrood that the figure was “outdated”⁴, but not that it was poorly constructed.

It is good practice for elected representatives to correct their use of official statistics. My office is engaging with the Scottish National Party about its ongoing use of the claim and with the offices of those who have recently used it to emphasise the importance of using quantitative evidence appropriately. The Office for Statistics Regulation is also engaging with colleagues in Scottish Government to understand what more can be done to avoid further use of this claim and to obtain a more accurate and up to date figure for Scotland’s offshore wind potential in comparison to Europe.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Sir Robert Chote', with a horizontal line underneath.

Sir Robert Chote
Chair

⁴ [Meeting of the Scottish Parliament, 15 November 2022](#), Scottish Parliament