

Scottish climate change and renewables policy

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Climate change

If there is a global climate change agreement, the EU has committed by 2020 to a 30% reduction in GHG emissions, compared to 1990 levels. In this instance the UK Government has committed to a 34% reduction. If there is no international agreement (as is currently the case) these targets are 20% and 34% respectively.

The Climate Change (Scotland) Act commits Scotland to achieve, by 2020, a 42% reduction in GHGs, regardless of any international agreement. The Act also imposes annual targets (see Figure below) and includes emissions from international aviation and shipping. This gives Scotland a very ambitious but potentially inflexible climate change framework (CCC, 2010). However, many of the factors which determine emissions are clearly outwith the Scottish Government's control e.g. energy prices, fluctuations in demand and the price of carbon within the EU Emissions Trading Scheme. Also, they have little in the way of policy instruments, e.g. no substantial tax raising powers. The Scottish Government must use the powers it has available, such as planning powers, to meet its targets. The purchase of offset credits from Kyoto low-carbon projects, such as the Clean Development Mechanism, may also be needed to ensure targets are met, at considerable cost.



The CCC advise setting separate emissions targets for the traded and non-traded sectors in Scotland. The traded sector, including emissions from electricity generation, will be met as Scotland's share of the UK allocation under the EU ETS. However, this share is dependent upon whether the EU target is 20% or 30%. The CCC suggest setting a target for the non-traded sector that is invariable to a global deal being agreed.

Increased diversity, and to some extent self-sufficiency, of energy supply may help achieve a government "security of supply" objective. This is particularly important given the retirement of coal and nuclear power stations in the coming decades and the current Scottish Government's "no new nuclear" policy.

The Scottish Government has also emphasised the potential economic benefits of establishing renewables industries in terms of job creation and potentially exporting technologies.

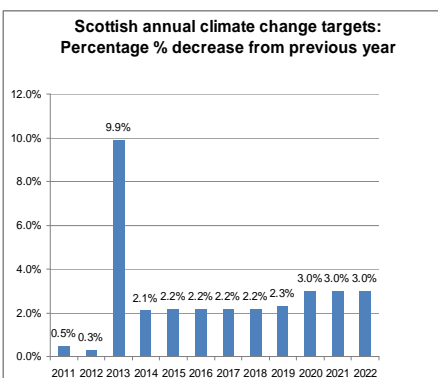


Renewables

The EU has a target of meeting 20% of final energy consumption through renewable sources by 2020. The UK's contribution to this is to be 15% of total energy.

The Scottish Government recently increased its target for the amount Scotland's electricity supply to come from renewable sources by 2020 to 80%. In theory, the efficient level of renewables investment, to provide GHG emissions reductions, should be determined by the price of carbon from the EU ETS. Having a renewables target only serves to raise the cost of reducing emissions. However, in practice, the carbon price is too low to drive the necessary investment and there are other reasons to have renewables policies in tandem with the EU ETS.

Although markets will decide how the energy supply is achieved, the Scottish Government can attempt to influence this by providing support for renewables. Investors are far more likely to respond to direct funding than an aspirational 80% renewables target. Funding for R&D for newer renewable technologies is necessary where moral hazard, risk and imperfect information can cause inefficient investment. Given Scotland's marine energy potential, the Scottish Government has also declared higher "banding" of ROCs for wave and tidal power, of 5 and 3 respectively, in order to make these technologies more competitive. In the rest of the UK all offshore technologies receive only 2 ROCs per MWh. Either the UK Government is underfunding marine technologies or the Scottish Government appears to be "picking a winner".



References

- 1.CCC (2010) Scotland's path to a low carbon economy, Committee on Climate Change, London