

Draft Scottish Energy Strategy

Scottish Renewables

Introduction

Scottish Renewables is the voice of the renewable energy industry in Scotland, representing over 270 organisations working across the full range of technologies providing clean, sustainable, low-carbon heat, power and transport to Britain's homes and businesses.

We welcome the publication of the Scottish Government's draft Energy Strategy (herein 'the Strategy'), and support the Government's high-level aims of decarbonising Scotland's energy production and use. The emissions reduction efforts required through the Climate Change Plan (CPP) are extremely challenging, but the need to accelerate the shift to low-carbon energy has never been clearer. The proposed policy mechanisms outlined in the Strategy are therefore necessary, but we question whether they are sufficient on their own to deliver its vision. We therefore recommend the Strategy:

- develops clear action plans to outline the practical steps which will deliver the Strategy's targets and vision
- outlines the critical decision points that will play a role in determining the future of Scotland's energy supply
- ensures all devolved policy levers are maximised to deliver the scale of transformation in energy supply and use required

The 50% 'All Energy' Target

Scotland's ambitious climate change and renewable energy targets have signalled a clear intent for the country to lead the way in the transition to a low-carbon economy. Research has shown Scotland needs to meet at least half of its overall energy needs from renewables in 2030 if we are to meet our climate change targets at lowest cost¹. Scottish Renewables therefore called on the Scottish Government to set a new target to produce the equivalent of at least 50% of all energy use from renewable sources by 2030.

We believe this target is both ambitious and feasible and welcome its inclusion in the Strategy as a critical signal that renewable energy will be at the heart of Scotland's economy.

Energy Supply

Scottish Renewables welcomes the Strategy's aim to completely decarbonise the electricity sector by 2027 and reduce CO2 grid intensity to below 50g per kilowatt hour. These ambitions and targets are extremely challenging,

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http://assets.wwf.org.uk/downloads/ricardo_energy__environment___renewable_energy_in_sotland_2030_2016.pdf

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requiring substantial emissions reduction effort across all parts of our energy system. Scottish Renewables, therefore, understands and supports the need to take a flexible approach to decarbonisation as outlined within the Strategy. This approach will enable us to take advantage of innovations in technologies and system management as they come to market, ensuring the transition is delivered as cost effectively as possible. However, this flexibility must be managed against the needs of industry to have a degree of certainty over the direction of policy, giving confidence in market opportunities and stimulating the required private sector investments.

Given the scale of transformative change required, it is critical that the Scottish Government maximises the use of the devolved policy levers it has available - such as planning, public procurement, building standards, business rates, and innovation and project funding. A continuation of 'business as usual' is unlikely to deliver the required increase in capacity. We therefore question whether the actions outlined in the Strategy are sufficient to deliver the Strategy's vision and targets and call on the Government to develop more detailed 'action plans' to provide more information on how the Strategy will be delivered in practice, and to outline the key decision points that will play a role in determining the future of Scotland's energy supply.

The Strategy suggests 11 – 17GW of installed renewable energy capacity is required by 2030. However, it is not made explicit whether this accounts for anticipated increases in electrification of the heat and transport sectors or only decarbonisation of the electricity sector, and whether this is additional to the current 8GW of installed capacity or a cumulative total. Scottish Renewables continues to recommend that current installed renewable electricity capacity needs to more than double (from the current 8.6GW baseline) by 2030. With a 12GW pipeline of pre-operational renewable power projects in Scotland, we believe it would be prudent to maximise the deployment of this capacity as part of a 'low-regrets' strategy, minimising reliance on less mature technologies to reach our decarbonisation goals.

While Scottish Renewables welcomes the Strategy's ambition, the pathways set out in it and the Climate Change Plan to supply 80% of domestic and 94% of non-domestic buildings' heat with low-carbon technologies by 2032 are extremely challenging and will require significant effort.

The Strategy currently contains little detail surrounding the policies that will deliver these ambitious heat targets and what technologies are considered to be 'low-carbon'. Many of the recommendations within the 'Scotland's Energy Efficiency Programme' (SEEP) and 'Heat & Energy Efficiency Strategies and Regulation of District Heating' (LHEES) consultations are to be welcomed. However, given the significant role played by the decarbonisation of heat in Scotland's emissions pathway it is critical that a detailed sector road map, which outlines the technologies considered 'low-carbon' and 'renewable', is delivered and implemented as quickly as possible. Scottish Renewables' recent papers 'A Vision for Low-Carbon Heat in Scotland'² and 'Biomass Heat

² <https://www.scottishrenewables.com/publications/vision-low-carbon-heat-scotland/>

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in Scotland: 16 Priorities for Action³ provide further information on our recommended policies to achieve our targets and raise awareness of the positive contribution this sector can make to individuals and communities.

Route to Market

Scottish Renewables welcomes the Statement's prioritisation of finding a route to market for onshore wind development of all scales. This is the biggest challenge facing new onshore wind development in the UK.

We supports the challenge set out in the UK Government's Industrial Strategy Green Paper to ensure the shift to a low-carbon economy is done in a way that minimises the cost to UK businesses, taxpayers and consumers. In order to achieve this, the UK Government must ensure that the energy market is competitive and can deliver low-cost, clean energy supplies to replace retiring capacity and upgrade our infrastructure to meet future demand from the increased electrification of heat and transport systems and production of alternative fuels (e.g. hydrogen).

A recent study for Scottish Renewables by Baringa Partners found that, based on the latest evidence of cost reductions among established technologies as a result of innovation, decreasing turbine prices and the use of auctions to ensure competition, a new Pot 1 CfD auction for established renewable technologies in 2018/19, could deliver around 1GW of the most competitive new onshore wind capacity - enough to meet the equivalent annual demand of 600,000 homes - at no extra cost to consumers above the wholesale market price for power and could even pay back more to the public purse.

The capacity delivered through the auction – most of which is expected to be in Scotland - would result in more than £1 billion of private sector investment in clean energy generation across the country, and would displace some 8 million tonnes of CO₂ over the lifetime of the projects.

Scottish Renewables therefore believes the UK Government must hold a new Pot 1 CfD auction for established technologies in 2018/19.

It is important to stress that this outcome currently only applies to the most competitive 1GW of projects in the development pipeline. Scotland has over 5.4GW of onshore wind either in planning or consented and awaiting construction.

This significant additional capacity in the system can play a crucial role in helping to meet the Scottish and UK Government's energy ambitions. While the industry will continue to strive to reduce costs, the UK Government's own analysis shows that onshore wind is on track to be the cheapest form of electricity generation. It is therefore vital that the Scottish Government continues to work with industry to reduce the cost of power and maximise the competitiveness of all Scottish projects through policy and regulation within

³ <https://www.scottishrenewables.com/publications/biomass-heat-scotland-16-priorities-action/>

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their its devolved powers. Crucially, The CfD mechanism still has a fundamental role to play, offering a low-risk route to market.

Transforming Energy Use

Scottish Renewables broadly supports the Strategy's priorities for transforming energy use over the coming decade.

After heat, transport is the biggest decarbonisation challenge facing the Energy Strategy. Published analysis from Ricardo AEA shows that emissions from transport must fall by 40% by 2030 with renewable technologies providing a fifth of the energy consumed⁴. Scottish Renewables has previously called on the Scottish Government to refresh its existing transport strategy to maximise the electrification and decarbonisation of the transport system. We believe electrification - alongside hydrogen and biofuels - powered by renewables, offers the key to sustainable, low-carbon mobility for Scotland.

We, therefore, support the Strategy's commitment to refresh 'Switched on Scotland'. The refreshed strategy should ensure that by 2030, the majority of new cars and vans purchased should be based on electric drives and powered by renewable and low-carbon sources, with heavy vehicles increasingly low-carbon.

Smart Local Energy Systems

Our energy system is undergoing a period of fundamental transformation. While this presents a significant opportunity, it also presents industry with a number of significant challenges.

UK and Scottish Government ambitions are to develop a decentralised and flexible energy system, yet we are faced with a regulatory landscape often acting in opposition to this transition. We would therefore welcome the Scottish Government taking considered positions on policy and regulatory issues, including at a UK level, which are preventing industry from supporting governments' ambitions. Similarly we would welcome the Scottish Government assessing which policy levers it can employ to promote system flexibility, grow low-carbon generation and enable industry to work to deliver the energy strategy's ambitions.

Areas which we would like the Strategy to consider further to realise the ambition of delivering smart, local energy systems include.

- A. Network Charging Principles
- B. Grid Constraints and Network Development
- C. Barriers to co-locating energy storage with existing generation
- D. Implementing Innovation

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http://assets.wwf.org.uk/downloads/ricardo_energy__environment___renewable_energy_in_s_cotland_2030_2016.pdf

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- E. Unintended consequences of system changes: security of supply and exporter status

Public Engagement and Monitoring

Scottish Renewables welcomes the commitment within the Strategy to publish an Annual Energy Statement which will take account of the Climate Change Plan monitoring framework and relevant energy indicators. Given the stretching targets contained within both documents, we would suggest that interim milestones or targets are given due consideration. This would help to continue to focus effort and ensure the trajectory of emissions reductions remains achievable.

As stated previously, further information decision point timelines would also be helpful in refining the current document into a fully comprehensive Energy Strategy which provides a meaningful pathway out to 2050. Coupling these decision points with interim milestones and targets will further enable effective monitoring of the Strategy.

The implementation of the Strategy will require significant changes to the ways we use and generate energy. In particular, the targets to supply 80% of domestic and 94% of non-domestic buildings' heat from low-carbon technologies by 2032 will require individuals and business owners as well as the public sector to share the Scottish Government's ambitions.

To turn that ambition into action will require a coordinated communications plan targeting marketing, media and education. However, the Strategy's plans for public engagement appear light. It is critical that all sections of society are empowered to effectively engage and this will require a degree of support and structure from national organisations such as Local Energy Scotland and Community Energy Scotland.

In addition, an intensive national public awareness and education campaign is required to deliver buy-in and support, ensuring that the people of Scotland are aware of the Energy Strategy's intentions, the benefits it will deliver, and how they can help meet Scotland's new ambitions. Delivery of a coordinated communications and marketing plan across government, stakeholders, the renewables sector and academia is essential.

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