

Introduction

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

Scottish Renewables welcomes the publication of the Scottish Government's draft Climate Change Plan (CCP) and the accompanying draft Energy Strategy, and supports the Government's high-level aims of decarbonising Scotland's energy production and use.

We believe that the Energy Strategy should set a clear vision for the future of Scotland's energy sector and the energy mix required to meet the country's future climate change targets, keep bills down for consumers, while maintaining energy security and maximising economic opportunities.

It is also important that public and relevant stakeholders are engaged and supported throughout the transformative shift our energy sector will need to go through, as well as the behavioural changes required, in order to meet these new ambitions.

This written evidence focusses on both the draft CCP and the draft Energy Strategy and is being provided to the following Scottish Parliament committees as part of their ongoing joint inquiry:

- Economy, Jobs and Fair Work Committee
- Environment, Climate Change and Land Reform Committee
- Local Government and Communities Committee
- Rural Economy and Connectivity Committee

Background

Renewable energy is already delivering significant benefits to Scotland's economy and helping deliver on its challenging climate change ambitions. According to the Office for National Statistics (ONS), the Low Carbon and Renewable Energy (LCRE) economy generated £10.7 billion of turnover and supported 43,500 FTE employees in Scotland in 2014¹. The Scottish renewables sector also displaced 13.4 million tonnes of carbon dioxide (CO₂), one of the main drivers of climate change, in 2015² while providing 59.4% of Scotland's electricity needs³.

While progress in decarbonising Scotland's electricity supply has been very positive, there remains a lot more work to be done in decarbonising the heat and transport sectors⁴. According to WWF Scotland's *Future Energy Taskforce*⁵ paper, against a target of 11% by 2020, the share of renewable heat produced was around 5% in 2015, and renewable transport only met 4% of demand in 2014 against a target of 10% by 2020.

In January 2016, Scottish Renewables published '*Renewed Ambitions: A Plan for Renewable Energy in Scotland*⁶ which set out the renewables industry's key objectives and policy requirements to ensure the ongoing growth of our sector.

The top priority for us was to see the Scottish Government set a new target for Scotland to produce the equivalent of at least 50% of all energy use from renewable sources by 2030 and develop and implement a

¹ <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/finalestimates/totalactivity2014>

² <https://www.scottishrenewables.com/news/scots-renewables-sector-reduces-carbon/>

³ <https://www.scottishrenewables.com/news/new-stats-renewable-energy-Scotland/>

⁴ <https://www.scottishrenewables.com/sectors/renewables-in-numbers/#chart11>

⁵ <http://www.wwf.org.uk/sites/default/files/2017-01/Energy%20Taskforce%20-%20Final%20Online.pdf>

⁶ <https://www.scottishrenewables.com/publications/renewed-ambitions-priorities-next-scottish-govt/>

strategy to achieve this as well as map out the opportunities and challenges that future integration of electricity, heat and transport will bring.

Scottish Renewables, therefore, strongly supports the Scottish Government's proposal in the draft Energy Strategy for a new 2030 'all-energy' target for the equivalent of 50% of Scotland's heat, transport and electricity consumption to be supplied from renewable sources" and also the government's "whole-system view of energy policy"⁷.

We see this as a potential landmark moment for the renewable energy sector in Scotland; it provides a strong signal that renewable energy will be at the heart of Scotland's economy and is key to meeting our climate change targets at lowest cost.

However, it is also clear that many of the policy mechanisms identified in the draft CCP and Energy Strategy are reserved to the UK Government.

Scottish Renewables believes 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 - while continuing to closely engage with the UK Government on market mechanisms, regulation and revenue support.

Electricity

Scottish Renewables welcomes the draft CCP's aim to completely decarbonise the electricity sector by 2027 and reduce CO₂ grid intensity to below 50g per kilowatt hour.

We called on the Scottish Government to aim to double the current installed capacity of renewables by 2030 in order to meet the growing demand for electricity while delivering our climate change targets. This requires around 8GW of additional installed capacity (or 16GW in total) by 2030. The draft CCP suggests 11 – 17GW are required. **We, therefore, strongly encourage the Scottish Government to aim for delivery of the top end of this range.**

CCS plays a central role in the draft CCP and Energy Strategy and is critical to the projection of a negative emissions scenario in the electricity sector by 2027. However, as the CCP recognises, CCS remains a nascent technology requiring further investment and development before it is commercially viable. **Scottish Renewables, therefore, believes it is prudent to maximise the deployment of existing low-carbon and renewable technologies, as a 'low or no regrets' option, while CCS technology continues to develop.**

We are encouraged to see the Scottish Government's continued commitment to working with the UK Government to deliver a viable route to market for a wide range of renewable technologies, including onshore wind in Scotland – one of the cheapest low-carbon technologies available - and long-term funding under the Levy Control Framework. We also welcome the challenge to industry in the draft Energy Strategy "to make Scotland the first area in the UK to host commercial onshore wind development without subsidy", and the Scottish Government's pledge to work with industry to help realise this.

In order to achieve this level of ambition it is essential the Scottish Government works with industry to create the conditions for renewable energy projects to be delivered as cost-competitively as possible. We would therefore like to see greater detail in the draft CCP, and accompanying Energy Strategy and Onshore Wind Policy Statement, on how this level of new capacity can be enabled.

⁷ <http://www.gov.scot/Resource/0051/00513466.pdf>

Heat

Scottish Renewables supports the draft CCP's strong ambitions on heat, given that heat accounts for 53%⁸ of energy demand in Scotland. However, we recognise that the targets for both domestic and non-residential sectors are very challenging.

In particular, the targets to supply 80% of domestic and 94% of non-domestic buildings' heat with low-carbon heat technologies by 2032 represents a huge step-change in delivery, given that almost 80% is currently supplied by mains gas. It is therefore unclear why the draft CCP only envisages a significant increase in renewable heat installations after 2025. The resultant emissions reductions from heat appear to be heavily back-loaded as a result.

Scottish Renewables believes the Scottish Government should target the use of existing renewable heat technologies (such as heat pumps, biomass and solar thermal) where possible, as early as possible. Off-gas-grid properties and district heating schemes should be priority action areas. This will help smooth the emissions reduction pathway between now and 2030, while cutting emissions sooner.

The draft CCP and Energy Strategy currently contain little detail surrounding the policies that will deliver these ambitious heat targets. Many of the recommendations within the '*Scotland's Energy Efficiency Programme*' (SEEP) and '*Heat & Energy Efficiency Strategies and Regulation of District Heating*' consultations are to be welcomed. However, given the significant role played by the decarbonisation of heat in Scotland's emissions pathway, further effort will be required, and it is critical that a detailed sector road map is delivered and implemented as quickly as possible.

Scottish Renewables' recent papers '*A Vision for Low-Carbon Heat in Scotland*'⁹ and '*Biomass Heat in Scotland: 16 Priorities for Action*'¹⁰ 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.

Transport

Scottish Renewables' interests in transport relate principally to the electrification of rail and road transport (and resultant increased demand for renewable and low-carbon generation); the impact of electric vehicles as a form of storage on the electricity system; and the role of sustainable biofuels. We therefore welcome the draft Plan's focus on these areas.

Published analysis from Ricardo AEA¹¹ shows that emissions from transport must fall by 40% by 2030 with renewable technologies providing a fifth of the energy consumed. Under their scenario, this would be achieved through the electrification of vehicles and increased energy efficiency.

However, the draft CCP only envisages an emissions reduction of 31% by 2032. **We therefore query why more effort is not being targeted in this area and would welcome sight of the underpinning research carried out by Element Energy on behalf of the Scottish Government.**

Engagement and Education

The targets and emissions pathways outlined in the draft CCP are, quite rightly, stretching and will require significant changes to the ways we use and generate energy if we are to achieve them. We would encourage the Scottish Government to give careful consideration to how it will conduct this type of widespread public engagement and education.

⁸ <https://www.gov.uk/government/collections/total-final-energy-consumption-at-sub-national-level>

⁹ <https://www.scottishrenewables.com/publications/vision-low-carbon-heat-scotland/>

¹⁰ <https://www.scottishrenewables.com/publications/biomass-heat-scotland-16-priorities-action/>

¹¹ http://assets.wwf.org.uk/downloads/ricardo_energy_report_web.pdf

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. It is unclear as to how this buy-in of support will be gained without clear and concise messages on what the target means and why it's important we all help meet them.

We would encourage the Scottish Government to develop and implement a communications and education campaign on how they and relevant stakeholders will ensure that the people of Scotland are aware of the Energy Strategy and CCP's intentions, the benefits it will deliver, and how they can help meet Scotland's new ambitions.

Monitoring Progress and Impacts

Scottish Renewables welcomes the commitment within the draft Energy 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.

The presentation of the outputs from the TIMES model means it is currently not possible to compare or assess the relative efficacy of policies contained within the draft Plan. The draft Plan also does not provide any information on the constraints that were used with the model. **We therefore welcome the commitment to develop SMART policies to support monitoring and look for further information on the data and constraints used in the Scottish TIMES model.**

For more information, please contact:

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