



The Church of Scotland

Church and Society Council

Official Response

SUBJECT: Draft Scottish Energy Strategy
REQUESTED BY: Scottish Government
REFERENCE: OR-2017/05
DATE: 30 May 2017
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Why is the Church of Scotland interested?

The Church established the project *Responding to Climate Change* in November 2007. Its purpose was to help the church develop an effective response to climate change, both in its own actions and in its contribution to the wider debate. The project reflects the Church's ethical concern about climate change summed up in a report to the General Assembly in 2009:

The Church of Scotland is concerned that climate change poses a serious and immediate threat to people everywhere, particularly to the poor of the earth; and that climate change represents a failure in our stewardship of God's creation. We accept the need to reduce the emissions of greenhouse gases urgently to avoid dangerous and irreversible climate change; and to promote a more equitable and sustainable use of energy.

This links closely to the Church's concerns on fuel poverty. These two concerns inform our response to the draft Scottish Energy Strategy.

The Church of Scotland welcomes the draft strategy

The Church of Scotland welcomes the publication of the draft Scottish Energy Strategy and opportunity to respond. The Church is profoundly concerned about several of the issues addressed in the strategy including the high level of fuel poverty in Scotland and the need to reduce greenhouse gas emissions to mitigate the impact of climate change. We are pleased that both are taken into consideration in the strategy and that it seeks to address both as priorities. We strongly support the ambition to create a new low carbon energy economy for Scotland in which fuel poverty can be reduced or eliminated and in which communities can exercise greater influence over local energy generation and use. The ambition to create a low carbon economy may appear to be unrealistic in the short term but we believe it can be achieved with effective leadership and participation by 2050.

Developing the strategy

One of the strengths of the strategy is its willingness to open up new and challenging areas for discussion and debate. One such area is the need to decarbonise domestic and other heating. The draft strategy identifies the Scottish Energy Efficiency Programme (SEEP) as the starting point for this work. SEEP is a useful starting point but it will need to become a much more substantial and radical programme if it is to deliver the ambition set out in the draft strategy.

A concern for the Church of Scotland is to ensure that those most affected by the changes, particularly those affected by fuel poverty, should be closely involved in the design and delivery of SEEP. The Church has a long involvement in addressing fuel poverty and is ready to contribute to this process.

We are also concerned that the growth of community energy projects and local energy economies envisaged in the strategy are unlikely to come about unless the many barriers to community energy identified in a report to the General Assembly in 2016 are removed or reduced.¹ We call upon the Scottish Government to address these barriers as a priority and we recommend that the Scottish Government commissions an investigation into these barriers; to identify which can be addressed locally; which require Scottish Government action and which will require action at UK level.

Our Concerns

The future for oil and gas

We are concerned about some elements of the strategy that seem to fit uncomfortably with the overall message. The continued commitment to North Sea Oil and Gas seems inconsistent with a strategy to quickly and permanently reduce Scotland's carbon footprint.² It has been estimated that if the available resources in the North Sea are extracted and burned this could result in carbon dioxide emissions of over 6 billion tonnes, dwarfing any reductions that could be achieved by the Scottish Energy Strategy. Research by Carbon Tracker has indicated that we cannot hope to meet the Paris climate change targets if we continue to burn fossil fuels at the present rate and the Governor of the Bank of England has reiterated this same message to businesses and financial institutions.³ To meet the

¹ *Energy Issues and Fuel Poverty*, Report to the Church of Scotland General Assembly, 2016

² The remaining accessible reserves of oil and gas in the North Sea are estimated to be in the region of 20 billion barrels although estimates vary depending on the price of oil and other factors. Each barrel of oil will produce a range of products including, on average, about 100 kilogrammes of liquid fuels, which when burned will produce about 317 kilogrammes of carbon dioxide. So if the entire North resource were to be extracted this would result in emissions of carbon dioxide to the atmosphere of about 6.3 billion tonnes; a figure that is the equivalent of more than a decade of emissions from the UK as a whole or over a century of emissions from Scotland. For details of how this figure is calculated see: <http://numero57.net/2008/03/20/carbon-dioxide-emissions-per-barrel-of-crude/>

³ *Unburnable carbon 2013: Wasted capital and stranded assets*, Carbon Tracker, 2013, <http://www.carbontracker.org/report/unburnable-carbon-wasted-capital-and-stranded-assets/>

Resolving the climate paradox, Speech given by Mark Carney, Governor of the Bank of England, Arthur Burns Memorial Lecture, Berlin, 22 September 2016 <http://www.bankofengland.co.uk/publications/Documents/speeches/2016/speech923.pdf>

Paris climate change targets the majority of fossil fuels must be left in the ground and Scotland cannot and should not claim exemption from this requirement.

Transport

Emissions from transport are another area of concern. As the associated Scottish Government Climate Change Plan makes clear emissions from the transport sector have not fallen, unlike emissions from electricity generation, waste management, business and housing which have all shown significant reductions. Transport clearly needs to be the focus of much closer attention as the strategy develops. Unfortunately, the Scottish Government has elsewhere indicated its intention to reduce or eliminate air passenger duty. The aim of this policy appears to be to encourage air travel to and from Scotland which will inevitably lead to an increase in greenhouse gas emissions from the sector, a move that appears to contradict the aims and direction of the Energy Strategy. There are some welcome investments in low carbon transport, such as the Edinburgh Glasgow Investment Programme (EGIP) to replace diesel trains with electric, but on the whole the Strategy appears to be at its weakest in its discussion of transport.

Chapter 3: Meeting our Energy Supply Needs

The vision of a low carbon Scotland is welcomed but this sits uneasily beside a commitment to developing North Sea oil resources. Extending the life of North Sea oil fields can only delay the speedy transition to a low carbon economy and unnecessarily add to total emissions of greenhouse gases. As noted above these emissions would far exceed all other greenhouse gas emissions from Scotland. Unconventional oil and gas would also prolong our dependence on carbon fuels. In a separate submission to the Scottish Government consultation on fracking we suggest that it would be unwise to develop these controversial new sources but rather to accelerate the development of new low carbon alternatives.

The prospects for carbon capture and storage seem doubtful in the short to medium term. The failure to develop any demonstration plant of commercial scale, the cost and energy demands of the technology suggest a lot more development work will be needed before it can be considered a reliable and cost effective solution.

The target of ensuring that all Scotland's electricity is from renewable sources by 2030 (the 'all renewable target') is sensible but given the success in meeting Scotland's existing emissions reductions targets early a more ambitious target might be feasible. The commitment to support a range of renewables including onshore and offshore wind power, marine renewables and solar look sensible and should help ensure diversity and reliability of supply.

Managing the Grid

Strengthening and managing the electricity grid to meet the needs of the renewable energy revolution is an essential precondition for a low carbon future. A report to the General Assembly in 2016 identified a number of concerns and suggested that the ownership, regulation and management of the grid is not

necessarily adequate for this purpose.⁴ The real problems faced by community energy schemes in rural Scotland, the need to integrate remote islands into a grid to allow marine and wind power to be developed, the way in which access to the grid is charged for both consumers and producers and the overall lack of transparency in the ownership and strategy behind the development of the grid all suggested that there is room for substantial improvement. The electricity grid is a vital part of the infrastructure of the country and can only become more important in the future. Like roads and railways we believe the design, development and management of the grid should be carried out with the national interest in mind and a simple open and transparent structure should be put in place to achieve this, preferably accountable to the Scottish Parliament.

Chapter 4: Transforming Scotland's Energy Use

Achieving low carbon heating in both domestic and non-domestic property; and low carbon transport are critical to the success of the strategy. Neither will be easy to achieve and both will take political commitment, major infrastructure investment and behaviour change. They will also challenge traditional assumptions about how we heat houses, and how we travel. The Church accepts the need for change and is committed to help to bring about that change. The development of a low carbon economy is an opportunity to address fuel poverty and to reduce carbon emissions, objectives that are not inconsistent and could be delivered together in Scotland .

Energy use and fuel poverty

We support the ambition to decarbonise heating by 2050 and are committed to helping achieve this target. In partnership with Eco-Congregation Scotland and others we can explore with congregations around Scotland how such a transformation might be achieved, particularly in areas with high levels of fuel poverty. We recognize that developing low carbon heating will be an enormous challenge as gas central heating has provided affordable warmth for most households in Scotland and cannot quickly be replaced with cheap and equally efficient alternatives. New technologies may be part of the solution but their roll out needs to be managed in such a way that all energy users are confident in their use of the technology and are able to make good use of it. To achieve this 'energy education' in the broadest sense of the work would be helpful, a process in which Eco-Congregation Scotland could play a role .

Transport is a most challenging sector in which to bring about the changes required to reduce carbon emissions. While emissions of greenhouse gases from electricity supply in Scotland have fallen rapidly and energy efficiency measures in housing have helped reduce emissions, emissions from transport have not fallen. Despite more fuel efficient engines in road vehicles and planes the rise in road and air traffic has cancelled out any gains. More radical solutions may be necessary to bring about reductions in emissions from transport but there is little in the strategy or associated draft climate change plan that suggests this. As with domestic heating it will be necessary to promote behaviour change and quite possibly challenge some ingrained assumptions around our attitudes towards travel. In partnership with Eco-Congregation Scotland we are committed to help promote behaviour change and will work with the Scottish Government to achieve this.

⁴ Energy Issues and Fuel Poverty, Report to the Church of Scotland General Assembly 2016

Food and energy use

One sector that receives little attention is energy use in the food processing industries. Agriculture is discussed, but alongside this the production, import, storage, processing and distribution of food have become very energy-intensive, and much food is wasted in the food chain and in homes and restaurants. Furthermore, the Scottish diet is focused heavily on meat whose supply is well known to contribute significantly to greenhouse gas emissions. More efficiency in the food chain, and less reliance on meat and dairy products, would therefore reduce energy costs and carbon emissions as well as improve the nation's health.

Changes in employment

The employment consequences of the Energy Transition are considerable and the Scottish Government and others need to be alert to the challenge and opportunities this involves. Decommissioning oil and gas installations and the rundown of oil and gas related businesses has already had a substantial impact on employment and the draft Scottish Energy Strategy, if implemented, will further accelerate these changes. The growth of employment in renewables, while impressive, will not necessarily replicate exactly the type and number of jobs lost so there will likely be a mismatch between the skills and experience of employees in existing businesses and those needed in the transition. The memory of how the Scottish coal industry was run down and the brutal impact it had on mining communities offers an example that should not be repeated for communities dependent on oil and gas employment and we hope that the Scottish Government will ensure that the employment transition is as painless as possible. For the Church of Scotland the energy transition envisaged in the strategy is as much about human and community change as it is about technology.

Chapter 5: Delivering Smart Local Energy Systems

We support the ambition to develop local energy systems that involve communities in their development and in the benefits. We recognise however that at the present time the development of local energy projects is uncertain because of changes to feed in tariffs and other barriers. We call upon the Scottish Government to investigate these barriers to help bring about this objective.

Community or local energy?

There is also a risk of misunderstanding about community and local energy schemes. While an estimated 595 MW of installed 'local and community' capacity had been installed across Scotland as at June 2016 the great majority of schemes are local (that is they are installed by farmers, housing associations, local businesses, local authorities or other local landowners) and will not primarily benefit the community.⁵ The proportion of such schemes that are community owned is only 67MW or about 11% of the total. This small proportion of the total reflects in part the barriers facing communities wishing to develop community energy projects.

⁵ *Community and locally owned renewable energy in Scotland at June 2016*, a report by the Energy Saving Trust for the Scottish Government, Energy Saving Trust, December 2016.

Could local authorities take the lead?

Government owned heat and energy companies or partnerships between government and energy companies are worth exploring. Perhaps the best scale at which to develop such projects would be that of local authorities. Local authorities can bring together two important elements: an understanding of local needs, particularly the incidence and distribution of fuel poverty, and the local resources necessary to deliver energy services. There are good examples of such projects around the UK and elsewhere that could be developed further in Scotland and could become a significant part of Scotland's heat and energy provision in coming years.⁶

Chapter 6: Delivering, Monitoring and Engagement

Deepening public engagement is an essential part of the strategy. While some aspects of the strategy such as the 'decarbonisation' of electricity supply can be carried out with limited public engagement, two of the great ambitions of the strategy will require significant public engagement: changing the way we heat our houses and taking the carbon out of travel. We support these objectives but call on the Scottish Government to ensure that the needs and circumstances of those living in poverty are not overlooked and in particular those living in fuel poverty are engaged in designing low carbon solutions for domestic heating.

Conclusions

The draft strategy proposes transformation and change of the energy sector in Scotland to achieve carbon reductions and other ambitions. Economic and technological change almost always has a human impact and a range of human challenges. The Church of Scotland supports the transition to a low carbon economy because of the impact of climate change on people, communities and habitats in countries around the world, impacts whose effects have been shared with us by partner churches in different continents. Our duty to care for those most affected by climate change is matched by our desire to support people in Scotland, particularly those living in poverty and those whose jobs or prospects will be affected. These concerns will be our priority in working to promote a transition to a low carbon economy in Scotland.

Adrian Shaw, 30 May 2017

⁶ See for example the Nottingham 2020 Sustainable Energy Strategy, http://www.nottenergy.com/projects/public_sector/the_nottingham_2020_sustainable_energy_strategy/