

Brexit and Renewables in Scotland

UK Energy Research Centre policy brief by Nicola McEwen, Aileen McHarg, Fiona Munro, Paul Cairney, Karen Turner and Antonios Katris



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Executive Summary

This briefing paper considers the extent to which renewables in Scotland are shaped by the policy responsibilities and decisions of multiple governments: the Scottish Government, the UK Government and the EU.

Drawing on 12 interviews with representatives of industry and government, as well as a workshop bringing together academics with key stakeholders, the paper explores the significance of EU membership in shaping Scottish renewables and considers the likely effects of the UK's exit from the EU.

Despite limited constitutional power, promoting renewables has been a key priority for successive Scottish Governments, central to both its environmental and economic policies. While the main policy drivers rest with the UK Government, stakeholders in Scotland place importance on the EU regulatory framework, EU funding and finance, multinational cooperation and long-term strategic thinking in supporting the development of renewables in Scotland.

Our briefing identifies varying levels of concern among key stakeholders with regard to the impact that Brexit may have on renewables in Scotland. Many expect policy continuity, irrespective of the UK-EU relationship. Others are fearful of the uncertainty surrounding access to the EU internal market, access to project funding, access to labour and expertise, and added costs and delays in supply chains in an industry heavily reliant on kit from the EU.

The biggest impact of Brexit to date has been the dominance of the issue on the political agenda, leaving little space for policy development in other areas, including energy. In addition to the regulatory, financial and trade challenges it may generate, Brexit has also reignited the debate on Scotland's constitutional future, creating further uncertainties for the future of renewables.

Renewables in a Multi-level Policy Environment

The development of renewable energy in Scotland is shaped by the policies, decisions and behaviour of policy actors across multiple jurisdictions. Although the ownership, exploitation, regulation, supply and taxation of energy remains primarily a responsibility of the UK Parliament and Government, the EU and the devolved institutions have become important players in the field (Table 1).

Before the Lisbon Treaty made energy a shared competence of the EU and member states, EU influence was mainly via internal market competition policy, environmental policy and support for research and innovation. Since 2007, the EU has developed a specific role in energy market integration, energy security of supply, low carbon energy

and demand reduction, with continued influence via indirect competences, including in relation to the environment and market integration. This has enabled the EU to extend its regulatory reach to promote the transition to a low carbon economy, reduce energy demand and build an EU Energy Union.

Following the introduction of devolution in 1999, the energy competences of the devolved institutions were limited mainly to the promotion of renewables and energy efficiency, and consents for new electricity and gas installations. More recently, the Scottish Parliament acquired consenting powers for onshore oil and gas licensing and schemes to alleviate fuel poverty (Thomas and Ellis, 2017; Cairney, *et al.*, 2019). Despite this relatively limited constitutional competence, successive Scottish Governments have put renewables at the heart of their environmental and economic agendas, with increasingly ambitious targets.

Table 1. Distribution of the Most Relevant Renewable Energy Competences

Level	Direct competences	Indirect competences
European Union	Internal energy market Promotion of renewable energy Cross-border energy exchanges Gas and electricity system operation	State aid regulation Competition law Trans-European networks Innovation/R&D funding Structural & strategic funding
EU Agencies	Cross-border market integration and network harmonisation (ACER)	
United Kingdom/ Great Britain	Regulation of energy markets and networks Licensing of energy producers, suppliers and network operators Energy security Renewable energy subsidies/grants	Competition law Intellectual property and commercial law Climate change laws R&D funding
UK/GB Agencies	Gas and electricity market and network regulation (Ofgem)	Competition law
Devolved	Promotion of renewable energy Electricity installations consents	Crown estate Marine licensing and planning Property law Environmental Impact Assessment Economic development
Local		Land-use planning

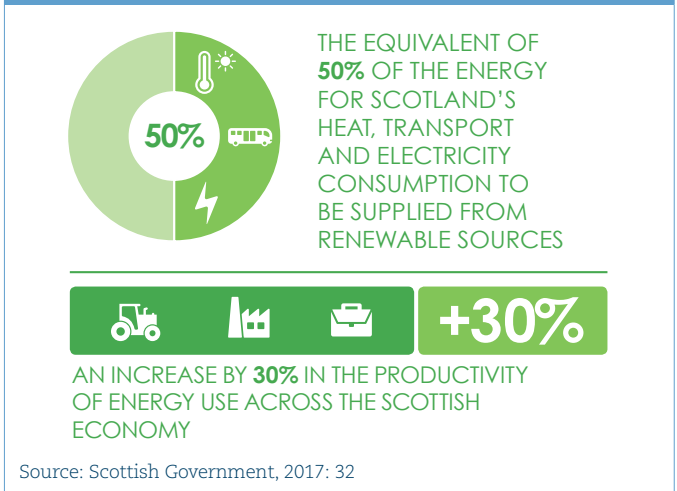
Source: modified from the full energy policy table in Cairney *et al.* (2019a: 460) and our Report 1

Scottish leadership in renewables

The 2017 Scottish Energy Strategy set a 2030 target of 50% of the energy required for heat, transport and electricity consumption to be supplied from renewable sources. The targets are backed by a ‘whole systems’ energy strategy (see Cairney *et al.*, 2019b), a sympathetic planning and consenting regime for onshore and offshore wind, investment for renewables research and innovation to boost marine renewables, support for community renewables, and high-profile leadership from successive First Ministers, especially under SNP administrations.

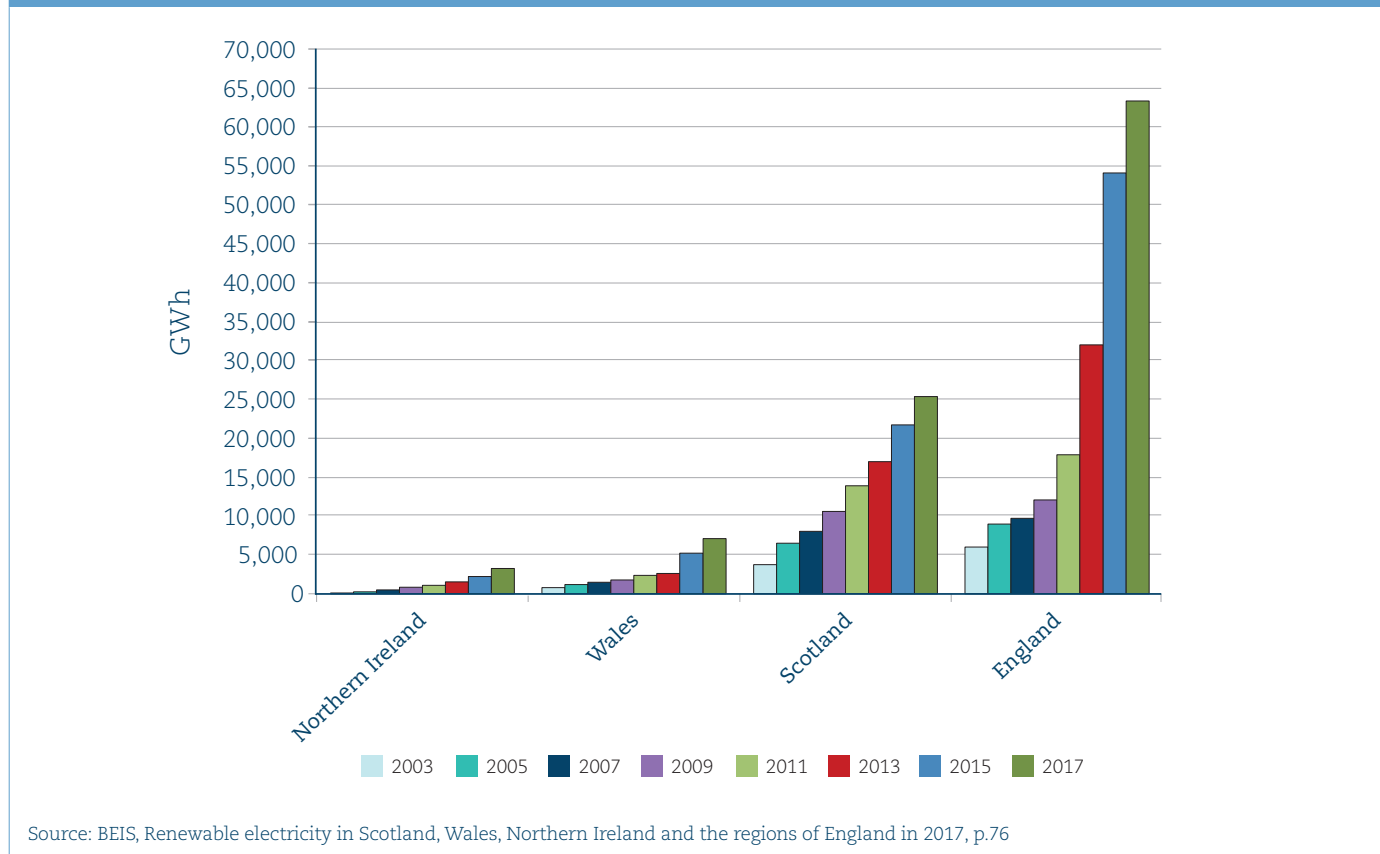
These policy ambitions have seen Scotland contribute disproportionately to the growth in renewables in the UK, and thus to UK efforts to meet EU renewables obligations. By 2017, Scotland accounted for around a quarter of the UK’s installed capacity of electricity generated from renewable sources, including just under 40% of the UK’s wind power (BEIS, 2018, Table 2). Generation output from Scottish renewables also accounted for around a quarter of the UK total, including 58% of total UK generation from

Figure 1: Scotland’s Energy Target



onshore wind (ibid, Table 3). Scotland’s disproportionate contribution to the UK’s EU obligations in energy – even more pronounced before the recent upsurge in offshore wind in England – has in the past helped the Scottish Government to punch above its constitutional weight in energy policy, despite very limited devolved powers in this field (see Figure 2).

Figure 2: Trends in capacity from renewables by country



Despite European integration and devolution, the UK Government has continued to retain the main policy drivers supporting investment in renewables, especially in relation to regulations, obligations and incentives targeted at the energy industry. Yet, these have been developed within, and must be compliant with, the EU regulatory environment. Electricity market reform (EMR) in the UK has had to be compatible with EU Single Market legislation, and the Commission's new guidelines on state aid for energy and environmental protection, as well as the wider EU climate and energy framework. EMR introduced a carbon price floor – a tax on fossil fuel generation – set limits to power plant emissions, introduced a capacity mechanism to ensure supply matched demand, and replaced the Renewables Obligation with a new subsidy regime of Contracts for Difference. The binding target assigned by the EU Renewable Energy Directives – that 15% of all UK energy demand (for heat, transport and power) be sourced from renewables by 2020 – placed obligations on the UK Government that incentivised a benign regulatory environment for renewables generation across the UK.

The disproportionate contribution that Scottish renewables had been making to efforts to meet the UK's obligations gave the Scottish Government some influence in the intergovernmental arena, especially in relations with the former Department for Energy and Climate Change (Royles and McEwen, 2015). This helps to explain why even big industry players invest as much time engaging with the Scottish Government as with the UK Government. An interviewee from one of the Big 6, noting the priority it placed on onshore wind, told us that it saw the Scottish Government as an ally in its call for changes to UK Government policy on onshore wind.



1 A full list of funded projects is available via the Scottish EU Funding Portal.

The EU renewables funding landscape

The industry in Scotland has benefited from the financial incentives introduced by the EU. Over 40% of EU funding is channelled through European Structural and Investment Funds (ESI Funds), with around 25% of the total targeted towards climate and low carbon energy projects. The Scottish Government is the Managing Authority for two ESI funds – the European Regional Development Fund (ERDF) and the European Social Fund. These ESI funds represent a small, but significant, proportion of the Scottish Government's budget, equating to €941million in the current EU budget round (2014-2020) (Scottish Government, 2019). The ERDF, in particular, has been used by the Scottish Government to provide match funding to support schemes such as the Low Carbon Travel and Transport Challenge and the Low Carbon Infrastructure Transition Programme. More significant has been the funding secured for low carbon research and innovation from the Framework Programme/Horizon 2020, which accounts for around a quarter of programme funds in the current round. In addition, numerous energy projects have been funded via Interreg, the various Territorial Cooperation Programmes (e.g. Northern Periphery, Arctic, Atlantic, North Sea, etc), the North West Europe programme, and the Competitiveness and Innovation programme¹. Our interviewees noted the significance of this funding, especially for new technologies and innovations, including hydrogen and tidal and wave schemes, where risk premiums are higher. In addition to the financial benefits, interviewees emphasised how EU-funded research programmes have fostered vital knowledge exchange and collaborative learning and innovation as a result of the requirement for teams to be drawn from multiple member states. As one interviewee noted, partnerships with other countries help to ensure there is collaboration and back-up to spread risk.

The European Investment Bank (EIB) has also helped to finance large scale renewables projects in Scotland, acting in particular as an early funder in large scale, high cost and high-risk innovation projects. Typically, the EIB provides up to 50% loan funding for new, often high risk, projects supporting the EU's strategic objectives. In 2015, the EIB provided €13.8bn finance for energy projects, thought to support roughly two-thirds of all European offshore wind capacity. An example is the £525m loan toward the construction of the Beatrice offshore wind farm 14km off the coast of Caithness – then the largest single EIB loan for an offshore project. Officially opened in July 2019, Beatrice became Scotland's largest single source of renewable electricity, capable of powering 450,000 homes.

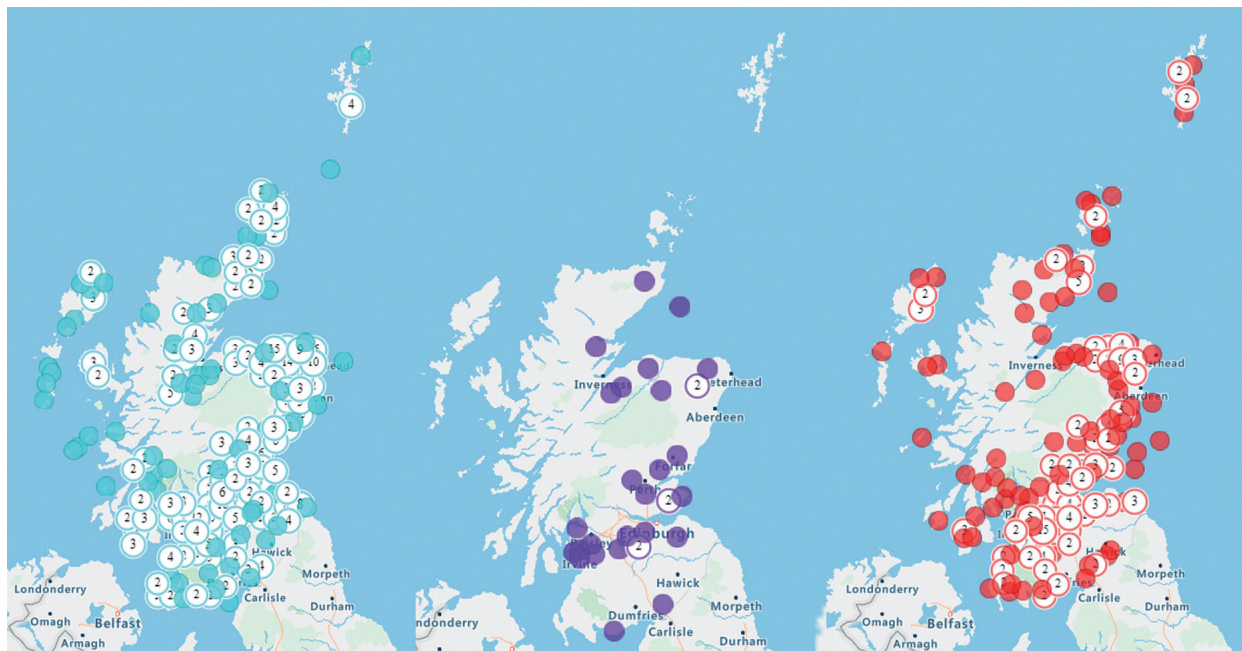
UK and EU policy divergence?

In its Annual Energy Statement, the Scottish Government (2019a: 20) noted: ‘Legally-binding EU renewable energy and energy efficiency targets have played a defining role in stimulating the huge growth seen in Scottish renewable energy and in generating significant inward investment’. Our interviewees reinforced that view. In addition to the financial and regulatory incentives identified above, they noted that the EU represented a source of stability in the face of UK instability. Whereas the EU had put in place long-term goals, with legal obligations or targets assigned to member states to help meet these, successive UK governments were considered to be more sceptical of the value of binding targets. In particular, interviewees were critical of what they viewed as the short-term horizons and reactive approach of UK energy policy. One interviewee at the pioneering end of the renewables sector suggested that the UK Government has never been keen on renewables and never, acting independently, been pro-active in that space,

for example by promoting domestic supply chains. Another noted that it puts most effort into engaging with the Scottish Government and the EU as the UK Government ‘just aren’t helpful’ and UK policy has ‘let us down’.

The future of onshore wind, in particular, has been adversely affected by UK policy change, which saw windfarm developers banned from competing for subsidies. This change of policy direction has had a frustrating effect on Scottish policy ambition. It has made it significantly more difficult to bring to completion those onshore windfarms that have already secured planning consent within a favourable Scottish policy context. Figure 3 below presents a visual manifestation of the significant gap in consented projects and those under construction. Of the 1420 onshore turbines that have secured consent in Scotland, with a combined capacity of 4GW, just 207, with 0.5GW capacity, are under construction. The equivalent figures for onshore wind in England are 147 consented turbines (0.186 GW capacity), of which 24 are under construction, with a combined capacity of just 19MW (Renewables UK).

Figure 3: Onshore windfarms in Scotland, operational (blue), under construction (purple) and consented (red)



Dots indicate windfarms, numbers correlate to number of sites, filled dots indicate a single site.



The impact of Brexit

Brexit effects may potentially be felt across three domains – the regulatory and policy frameworks governing renewable energy; access to EU funding streams; and the broader conditions of trade in energy and related goods and services – but there is still considerable uncertainty as to both the nature and scale of those effects (McHarg, 2017). Three years after the EU referendum, it remains unclear whether and when the UK will exit the EU, when EU law (including new rules such as the 2018 Renewable Energy Directive)² will cease to apply in the UK, what the conditions of withdrawal will be, and what sort of relationship the UK will have with the EU in future. The draft Political Declaration accompanying the Withdrawal Agreement negotiated by Theresa May's government suggested that the UK would no longer be part of the Internal Energy Market (EU, 2019), but the precise nature of the future relationship would be open to negotiation, and political priorities may change. So far, this prolonged uncertainty has been the major concrete impact of Brexit, affecting the ability of renewable energy businesses to plan with confidence.

Regulatory and Policy Frameworks

In principle, Brexit offers the opportunity to reform legal rules and policies directly or indirectly governing the deployment of renewable energy currently set at the EU level, although there may in practice be little room for manoeuvre if the UK remains closely aligned with the Internal Energy Market.

Our interviewees anticipated relatively little change in this area. In the short term, EU and EU-derived rules would continue in force as 'retained EU law' under the European Union (Withdrawal) Act 2018. A range of statutory instruments have also been enacted to maintain the operability and integrity of UK energy legislation, and to ensure that the energy market can continue to function in the event of a no-deal Brexit. No significant revision of the allocation of energy policy-related competences between the UK and devolved levels is envisaged, and some new domestic common frameworks are likely in areas currently governed by EU law, such as emissions trading and state aids (Cabinet Office, 2019).

² Directive 2018/2001/EU, OJ L328/82, 21 December 2018. The Directive becomes binding on Member States on 30 June 2021.

In the longer term, interviewees also expect a reasonably high degree of policy continuity despite the removal of EU legal constraints. On the one hand, the UK is regarded as having been a leader rather than a follower in the development of EU climate and energy policy, especially with respect to emissions reduction and market integration. In addition, international climate commitments and energy security demands will continue to ensure the UK remains on a trajectory towards decarbonisation. On the other hand, the revised Renewable Energy Directive no longer imposes binding national targets, and these had in any case not been sufficient to prevent the UK Government withdrawing or reducing financial support for renewables.

When pressed, some interviewees conceded that Brexit might present an opportunity to revise the detail of regulations that impose constraints on renewable energy developments, such as state aid or environmental impact assessment rules. However, one of the biggest perceived downsides to the Brexit process so far has been to crowd out the space for domestic policy development. For instance, interviewees pointed to the repeated delays in publication of the energy white paper and associated legislation that had been expected in summer 2019. In addition, some interviewees raised questions over the impact the loss of UK influence could have upon the development of EU energy policy. The absence of the UK could create space for some other member states to push an agenda that may weaken the EU's commitment to a renewables-friendly regulatory environment.

Funding

There was greater concern amongst our interviewees about their ability to continue to secure research and investment funding currently provided from EU sources. This was particularly worrying for smaller companies and those involved in more innovative technologies which are heavily reliant on public funding, such as marine renewables or hydrogen fuel cells.

If the UK leaves the EU with a deal, the transition period during which the deal was implemented would ensure continuity of funding at least until the end of 2020 (or the end of the transition period). In the event of No Deal, the UK Government has pledged to maintain project funding to the end of the current funding round (the end of 2020), but uncertainties surround what comes next. In any plausible Brexit scenario, the UK would have third country status for the purpose of access to European funds. As such, UK-

based projects could still participate in research and innovation funding, but not as leaders. Several of our interviewees reported that Brexit has already had an impact in this area. For instance, Scottish companies have been unable to act as project leads for grant applications, some projects have not proceeded due to uncertainty, grant applications have been cancelled by the European Commission, and developers have been unable to secure UK match funding for EU grants.

Particular concerns have also been raised about the lack of UK support for wave and tidal projects, where risks and costs remain high. Scotland is widely recognised for its potential in marine renewables, though development has so far fallen short of matching long-held ambition, despite significant government support for demonstration sites and research and development (see Hannon, *et al*, 2017). One interviewee working in marine renewables expressed frustration at the likely lost opportunity to capitalise on the new EU Innovation Fund, a €10 billion fund generated from Emissions Trading Scheme revenues to support the demonstration of innovative low carbon technologies within EU member states.

Market Conditions

Our interviewees expressed significant concern over future trading conditions. Whilst there is no real risk of being unable to access European markets even in a No-Deal Brexit scenario, trade in both energy and related products and services could become more difficult and more expensive.

For example, trade in electricity over interconnectors is likely to continue, but a loss of regulatory alignment could reintroduce inefficiencies and so raise prices (see Geske *et al*, 2018). Although the energy industry would not face the challenges of those like the food industry, that operate under 'just-in-time' supply chains, the import of components for renewable energy projects may be slower and more expensive due to tariffs and customs checks, and it may also be more difficult to secure access to skilled labour if (as is very likely) free movement of workers is restricted. Equally, Scottish-based researchers and developers may be less able to sell their knowledge-based services overseas. There is also a lack of clarity about the impact of Brexit on foreign investment in the UK. While global energy firms are used to operating across jurisdictional boundaries, the political uncertainty surrounding Brexit may be a deterrent to firms who have the option of investing elsewhere.

Renewable energy companies have differential capacities to manage these risks. One interviewee from one of the Big 6 noted that it had been stockpiling parts needed for maintenance work as a hedge against the risk of disruption to supply chains in the event of a no deal Brexit. Although this hadn't resulted in significant cost increases yet, he envisaged that new tariffs would generate new costs that would ultimately be borne by consumers. Others have sought to diversify into areas that are less risky and do not require so much government support. In addition, some interviewees see potential opportunities, for instance, to increase domestic inputs into renewable energy supply chains or to diversify into non-EU markets as a result of new trade deals. Regulatory change post-Brexit could also make the UK a more attractive investment market than other EU countries. However, such opportunities are unlikely to emerge overnight, and none of our interviewees considered these to outweigh the potential costs of Brexit.

Conclusion

All businesses dislike political uncertainty. However, it is particularly problematic in a sector like renewable energy which has high investment risk due to large capital costs and long investment horizons. Nevertheless, within the wider context of the global low carbon energy transition with its attendant risks, Brexit is just one more uncertainty on top of others; indeed, all of our interviewees pointed to UK Government policy as a more palpable source of uncertainty than the UK's departure from the EU. Although Brexit may slow down and/or increase the cost of the transition to a low carbon energy system, it seems unlikely by itself to bring about major changes in the Scottish renewables sector.

Nevertheless, the political consequences of Brexit are difficult to predict, and the future UK-EU relationship is not the only uncertainty. Brexit has already revived debates on Scottish independence, in light of the large majority in Scotland who continue to support EU membership. A new independence referendum that resulted in a vote for Scottish independence, especially if followed by Scotland acceding to the EU, could usher in a set of potentially more fundamental challenges for the Scottish energy sector. The Scottish Government's prospectus in 2014 had envisioned continuity of the GB energy market after independence, and a strategic energy partnership between the Scottish and UK governments. That would be considerably more difficult in the context of Brexit, especially if the UK leaves the EU internal energy market.



References:

Cabinet Office (2019), *Revised Frameworks Analysis:*

Breakdown of Areas of EU Law That Intersect with Devolved Competence in Scotland, Wales and Northern Ireland

Cairney P, A McHarg, N McEwen and K Turner (2019a), 'How to Conceptualise Energy Law and Policy for an Interdisciplinary Audience: the Case of Post-Brexit UK' 129 *Energy Policy* 129, June, 459-66 Open Access

Cairney P, F Munro, A McHarg, N McEwen K Turner and A Katris (2019b) 'The impact of Brexit on the UK and devolved energy system', *UK Energy Research Centre policy-brief*

Department for Business, Energy & Industrial Strategy, 2018, 'Renewable electricity in Scotland, Wales, Northern Ireland and the regions of England in 2017', *Energy Trends*, September, Special Feature Article.

Department for Business, Energy & Industrial Strategy, 2019, *UK Renewable electricity capacity and generation*, January to March.

European Union, 'Political declaration setting out the framework for the future relationship between the European Union and the United Kingdom', *Official Journal of the European Union*, (2019/C 66 I/02).

Geske, J, Green, R, and I Staffell (2018) 'Elecxit: The Cost of Bilaterally Uncoupling British-EU Electricity Trade', available at: <http://www.ukerc.ac.uk/news/elecxit-could-cost-270-million-a-year.html>

Hannon, M, R van Diemen & J Skea, 2017, Examining the effectiveness of support for UK wave energy innovation since 2000: Lost at sea or a new wave of innovation? International Public Policy Institute, University of Strathclyde: Glasgow

McHarg A (2017), 'Brexit and UK Energy Policy', in G Hassan and R Gunson (eds), *Scotland, the UK and Brexit: A Guide to the Future*

Muinzer T and G Ellis (2017), 'Subnational Governance for the Low Carbon Energy Transition: Mapping the UK's Energy Constitution' 35 *Environment and Planning C: Politics and Space* 1176

Renewables UK, *Wind Energy Projects database*

Royles, E and N McEwen, 2015, 'Empowered for action? Capacities and constraints in sub-state government climate action in Scotland and Wales', *Environmental Politics*, vol.24, no.6: 1034-54

Scottish Government, 2017, *The Future of Energy in Scotland: Scottish Energy Strategy*.

Scottish Government, 2019a, *Annual Energy Statement*.

Scottish Government, 2019b, *European Structural and Investment Funds*.

About the authors

Professor Nicola McEwen, Co-Director of the Centre on Constitutional Change, University of Edinburgh

Professor Aileen McHarg, University of Durham

Dr Fiona Munro, University of Stirling

Professor Paul Cairney, University of Stirling

Professor Karen Turner, Director of the Centre for Energy Policy, University of Strathclyde

Dr Antonios Katris, University of Strathclyde

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