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Subnational Governance for the Low Carbon Energy Transition: Mapping the UK's 'Energy Constitution'

Abstract

The UK has a 'national' strategy to decarbonise its energy sector, yet the transfer of key responsibilities to its Devolved Administrations has meant that they control many of the powers that determine the rate and extent of the decarbonisation process. This reflects an asymmetrical distribution of legal responsibilities that has cast a complex range of powers 'downward' from the national sphere to subnational scales and which plays a crucial role in shaping the agency at different levels of the UK's energy governance. This paper provides a detailed exploration of the UK's 'Energy Constitution' as a means of examining the way in which the complex legal framework of devolution shapes the spatial organization of the UK's low carbon transition. Previous research on the low carbon transition has remained largely 'lawless' and as such has tended to overlook how the legal regimes governing energy both produce space and are shaped by its geographic context. The paper therefore develops a more nuanced understanding of the spatiality, territorialisation and scaling of UK energy governance to highlight a nexus of ambiguity and partial power allocation distributed across a plurality of overlapping 'legal' jurisdictions. This raises fundamental questions over how UK constitutional arrangements reify the territoriality of energy governance and structure the relationships between national and subnational multi-level decarbonisation processes.

Introduction

The UK is committed to a shift towards a more sustainable energy system (UK Low Carbon Transition Plan, 2009), with the main emphasis on the decarbonisation of the national energy system.¹ Although substantial greenhouse gas reduction is needed in a range of sectors, particularly transport and the food system, we will primarily focus here on the system of energy generation (i.e. electricity and heat). The decarbonisation of the energy system is shaped by a complex range of factors related to institutions, the economy, environment and culture (et al) acting at a variety of spatial scales (for example see Foxon 2013). Although the geographies of such transitions have been a relatively undeveloped area of analysis (Bridges et al 2013, Raven et al 2012), at least compared to temporal aspects, questions of the spatial scale of energy and climate initiatives have attracted attention (Benson 2010, Pasimeni et al 2014, Sovacool and Brown 2009). In the case of the UK, there has been particularly little attention devoted to the role of subnational government in decarbonisation (Smith 2007, Ellis et al 2013, Cowell et al 2015, 2016) largely because energy and climate governance is broadly (and in some ways mistakenly) regarded being the bailiwick of the UK level government (for example in Bridge et al p 338) while more local scales are regarded as being home to the most critical citizen-facing initiatives (Broto and Bulkeley, 2013).

Yet, as Cowell et al (2015) have shown, the UK's Devolved Administrations (Scotland, Wales, Northern Ireland) have played significant, and varied, roles in the development of renewable energy, although they have tended to adopt certain modes of governance shaped by working within – and sometimes despite – processes, targets and policies defined at the UK level. These relationships are shaped by the UK's constitutional arrangements, which have resulted in a patchwork of subnational jurisdictions imbued with a complex series of asymmetric energy controls that frequently exhibit nuanced policy intentions (Palmer, 2008). Despite the fact that these controls are determined by a range of formal legal instruments, debates over both the scale and (re-)territorialisation of decarbonisation processes in the UK have remained largely 'lawless' (Delaney 2015, p.97) and have typically ignored the way in which detailed constitutional legal arrangements have defined the scope for agency and action (Turner 2013b). The shape and influence of the UK's 'Energy Constitution' has been left largely unexplored. This study seeks to address this by examining the spatial and scalar distribution of powers related to decarbonisation, involving a doctrinal legal

¹ By 'decarbonisation' of the energy sector, we mean the mitigation or removal of greenhouse gases from power generation.

analysis (see McConville and Chui, 2007, p18-21 and Aarnio, 2011, p.19-26) of how the law has defined the energy-related responsibilities of the Devolved Administrations and the impact this has on the energy governance in the UK.

This is important because the UK decarbonisation process is driven by a national aspiration to reduce greenhouse gas emissions levels, but largely relies on implementation through a complex set of policy areas, most of which depend on the agency of the Devolved Administrations (Cowell et al 2016). The national framework is most directly articulated in law under the terms of the Climate Change Act 2008 ('CC Act 2008'), although it is recognised that the broader objectives of energy policy also aim to address other facets of the 'energy trilemma', including security of supply and affordability. The CC Act 2008 imposes rigorous emissions reduction targets upon the UK as a whole (i.e. including the subnational jurisdictions). It has been noted as being 'the world's first national legislation to impose long-term, legally binding emissions-reduction targets' (McHarg, 2011, 471). The Act commits the UK to greenhouse gas emissions reductions of 80% from 1990 levels by 2050, and 34% from 1990 levels by 2020. The CC Act 2008 recognises that action must be taken across the UK's socio-economic sectors if appropriate reductions are to be achieved.

A legal analysis can add value to understanding how the sub-national governance of decarbonisation shapes the prospect for fulfilling the aspiration of the CC Act 2008. The 'Energy Constitution' creates agency and constraints for different institutional actors, including the ability of the UK, as a Nation State, to control key aspects of the energy transition such as development of renewables, for which it is accountable to the EU (at least in a pre-Brexit world). Combining legal and geography perspectives offers opportunities to develop insights into 'the manner in which legal practice serves to produce space, yet, in turn, is shaped by socio-spatial context' (Blomley 1994 p. 51) and connects legal instruments with overtly geographical concepts such as scale and specific local contexts (Bartel et al 2013). A more detailed analysis of the legal arrangements of energy governance thus helps provide new insights on authority, power and control involved in decarbonisation.

In exploring the legal arrangements for energy at the subnational scale, we follow De Sousa Santos' view that the law's presence and operation across multifarious levels of governance and jurisdictional sites can be usefully interpreted as presenting analysts with a complex range of legal spatialities that manifest 'inter-legalities' (De Sousa Santos, 1995). Inter-legality indicates that it can

be significantly disadvantageous to view legal orders ‘as separate entities coexisting in the same political space’; rather, they comprise ‘different legal spaces superimposed, interpenetrated and mixed in our minds, as much as in our actions’ (ibid 472-473). Viewed in this way, spatio-legal and social realities are understood to be inextricably interlinked. Holder and Harrison note that these sorts of spatio-legal insights ‘conjure... up a powerful challenge to approaches to law which idealize law’s separateness, rationality, and reflexivity, and which portray law as deaf to material, physical, spatial and cultural influences.’ (Holder and Harrison, 2006).

In this context we have found it particularly useful to deploy three themes identified by Delaney (2015) in the context of legal-geography to help frame our analysis: *constitutivities*; *complexities*; and *contingencies*. In terms of *constitutivities* an analysis of the variegated distribution of energy-related powers between the National State and the Devolved Administrations helps provide a clearer understanding of how these different government institutions operate as actors in energy governance, elucidating the scope in which they can territorialise energy resources and in so doing throwing some light on what we understand as being the specific entities of ‘Scotland’, ‘Wales’ and ‘Northern Ireland’. Similarly, in terms of *complexities*, our analysis considers the way constitutional arrangements structure how energy powers of the three Devolved Administrations have been prescribed, how these relate to a path dependency from former non-devolved arrangements and how the administrations have sought to work around these formally prescribed arrangements to exert (or neglect) their agency in the energy arena. Finally, the analysis will show how the achievement of Nation State (UK) responsibilities for energy (as defined by the CC Act 2008 or EU Directives) are highly *contingent* on the performance (or otherwise) of the Devolved Administrations in areas in which they may have formal autonomy.

The paper therefore aims to explore energy governance in the UK by examining the distribution of legal powers between the national and subnational levels, and comparing the asymmetrical powers that exist in the latter, in order to draw out some implications for the efficacy of the policy, scale and territoriality of decarbonisation. In order to do this, the first section contextualizes the scalar challenges for the UK’s energy governance and introduces the approach adopted for the analysis of key legislation. The paper then applies a doctrinal analysis of the UK constitutional arrangements in order to map the energy-specific powers apportioned through devolution to specific geographic scales of national and subnational arenas of governance. A final section discusses these findings

and draws broader lessons for the (re)scaling of energy decarbonisation, and a broader understanding of energy governance, by reflecting on the three themes suggested by Delaney (2015), above.

Territory, scale, and the decarbonisation challenge

Bridge et al (2013) have noted how the low carbon energy transition is fundamentally a geographic phenomenon, shaped by a range of spatial factors including the location of energy resources, infrastructure, variable patterns of energy consumption/production and the broader *territoriality* of energy. In this context, the territoriality of decarbonisation refers to the dynamic way in which social and political power are organised over space, with formal legal powers playing an important role in shaping this. Over time, the UK energy system has witnessed different drivers of re-territorialisation of energy, ranging from the nationalisation of the electricity grid from the 1920s to more recent spatial impacts of privatisation and Europeanisation of energy markets (and potentially their de-Europeanisation in the future as a result of Brexit). The legislative provisions that created the Devolved Administrations have introduced no less profound changes to the territorialisation of energy in the UK, by specifying particular scales at which different powers of energy regulation, policy making and financial incentives should take place. Indeed, scale is critical in the design of energy governance and an ability to address climate change by decarbonising our energy systems (Sovacool and Brown 2009).

A predominant concept of scale in transitions has been the differentiation of *niche, regime, landscape* that has emerged from socio-technical studies (Geels, 2011). In this conception, the *regime* level (denoting dominant structures, cultures and practices, including key governance structures such as laws, financial arrangements and forms of regulatory control) has tended to be associated with the national level (Raven et al 2012) and this is often taken as a monolithic entity for the purposes of analysis (e.g. see Foxon 2013). However, we can (crudely) allocate these regime functions to different 'levels' of governance ranging from the global downward to the subnational and localised scales. The limit and extent of various capacities for action enjoyed by pertinent actors embedded within this multilevel, multi-layered field duly invites consideration of the spatial range of differing governance capacities (Moss and Newig, 2010). Climate change is clearly a globally pervasive phenomenon that requires a multi-level response, demanding action across multiple national, international and intra-national jurisdictions (Abbott, 2012). These circumstances

therefore raise questions over the best fit of the scale of response to the scale of the problem (Adger et al 2005), and pose challenges to the extent and limits of national sovereignty, territorial claims and policy efficacy within broader transnational contexts (Bulkeley et al, 2012). The international community has entered into various agreements under international law designed to mitigate the phenomenon. These include the efforts of the EU to decarbonize through its Energy Directives and the United Nations Framework Convention on Climate Change, which has been in place since 1994. In December 2015, agreement to cut carbon emissions to limit climate change to a 2°C rise was achieved at the United Nations Climate Change Conference in Paris. The Paris Agreement commits 195 countries to limiting emissions to ‘nationally determined contributions’, yet this will require subnational action for successful implementation (Schreurs 2008), which remains a critical, but frequently overlooked scale of action (Kates and Willbanks 2003, pp.13-14).

Spath and Rohrer (2014, p.118) have highlighted ‘the importance of interplaying discourses and networks of different spatial reach (from explicitly local to national and trans-national)’ in underpinning energy transitions, noting that ‘[s]uch cases do not allow for simple generalizations.’ Despite these complexities, the subnational arena has received comparatively little attention to date with respect to energy decarbonisation (Coenen, Benneworth and Truffer, 2012, Bruyninckx, Happaerts, and Van den Brande 2012). Of course, an *over* emphasis on subnational action in practice can lead to a lack of sufficient coordination at a national level, with Sovacool and Brown (2009) noting that in the case of the USA emissions reduction standards have neither been sufficiently harmonised between states nor by federal agencies, so that:

‘[p]olluters can simply move to other places that do not have restrictive policies, creating significant “leakage.” A polyglot of local climate change policies allows stakeholders to manipulate the existing market to their advantage, using regulatory loopholes to emit greenhouse gases wherever regulators are the most lax.’ (p.323)

Any nation is vulnerable to this sort of ‘leakage’ internally across its subnational jurisdictions, but also externally/internationally, depending on the configuration of legal and regulatory regimes. For example, it has been observed that the EU Emissions Trading Scheme has served to incentivise the displacement of certain UK/EU-based industries to non-EU nations that do not impose such costs on carbon-heavy production processes (Tscherning, 2011).

The rich, complex relationship underlying scale and energy governance suggests that a simplistic one-size-fits-all formulation of governance solutions will be neither realistic nor appropriate in the sphere of energy decarbonisation for a multilevel, multi-layered UK (Cowell et al 2015). Indeed, debates about ‘the right scale’ of action tend to overlook the underlying complexities of energy governance and often project a level of sovereignty and agency that cannot be sustained under detailed examination, with legal responsibilities rarely being able to be isolated to a single scale or having clear boundaries (Benda-Beckmann et al 2013). We believe this is the case in relation to the UK’s ‘Energy Constitution’, which will be highlighted by a detailed doctrinal legal analysis of the extent to which different powers related to energy have been distributed by constitutional law across the UK’s Devolved Administrations, followed by a subsequent discussion.

The UK’s ‘Energy Constitution’: mapping the powers

The UK’s current devolved framework was established in 1998 under legislation including the Northern Ireland Act 1998, the Scotland Act 1998 and the Government of Wales Act 1998.² At the point in time where devolution was being set in place there seemed to be little rationale for radically re-centralising powers that had previously been held by the Northern Ireland Office, the Scotland Office and the Wales Office, and so there was a tendency for the competences that were already decentralised to be transmuted into devolved competences under the 1998 rescaling process (Burrows, 2000, pp. 9-27; Bogdanor, 1999). Therefore the pre-devolved arrangements played a significant role in shaping the asymmetrical distribution of responsibilities entrenched in the devolved settlement (Reid and Ross, 2012), largely independent of whether this was optimal for climate governance, thus highlighting important questions concerning the effectiveness of the scales of governance and the path dependency of institutional structures. In other words, the distribution of decarbonisation-specific controls under the 1998 devolved arrangements have largely persisted *in spite* of the decarbonisation imperative, rather than *because* of it.

The UK’s process of devolution resulted in three new legislatures: the Northern Ireland Assembly, the Scottish Parliament, and the National Assembly for Wales. Their relationship with the national Parliament (‘Westminster’) operates under a number of important principles. In particular, a legislative consent motion, known as the ‘Sewel Convention,’ dictates that a provision of a Westminster Act that intrudes upon an area of devolved competence will extend to the pertinent

² Referred to as the ‘NI Act 1998’, ‘S Act 1998’ and ‘GoW Act 1998’ respectively in the rest of the paper.

devolved jurisdiction only where the Devolved Assembly has passed a motion consenting to the arrangement; however, these consent motions embody an *agreement* between national Parliament and the devolved institutions, and thus in strict legal terms the provisions of national Acts of Parliament are to be judged by reference to those provisions and not by reference to whether or not a legislative consent motion has been passed (Elliott and Thomas, 2014, p.58). UK Parliament therefore remains sovereign, ultimately safeguarding its control over issues such as renewables targets or financial subsidies. It is also notable that UK Parliament's sovereignty is made explicit in the devolution legislation itself: NI Act 1998, s.5(6); S Act 1998, s.28(7); Government of Wales Act 2006, s.93(5), s.107(5). Further, it should be emphasized that devolution in its own right is not merely restricted in this setting to the devolution of *legislative* competence from national Parliament to the subnational Parliaments; functions may also be devolved from the national level to the devolved governments, via *executive* devolution. The central doctrinal analysis of devolved competences below engages with legislative devolution, however it will be emphasized in the commentary to follow that executive devolution also profoundly impacts national/subnational capacities for action in the sphere of decarbonisation as an intrinsic aspect of the Energy Constitution's broader complex frame.

The devolved arrangements are also underpinned by what Rawlings characterizes as an emergent 'new style pseudo-contract', in the form of 'a raft of inter-institutional administrative agreements between the UK Government and the devolved administrations' (Rawlings, 2000, p.257). These include *The Memorandum of Understanding on Devolution* (MoU) and associated documents,³ which provide a basis for how the Devolved Administrations and UK Government conduct relations with one another (in areas including communication, consultation, information exchange, etc.). As such, the MoU and important concordat agreements attached to it are effectively a variety of 'administrative quasi-legislation' that complements the constitution's body of 'hard' law in the form of 'soft law' (Rawlings, 2000, p.257). Therefore, it is important to note that significant arrangements around the devolution (or non-devolution) of responsibilities, as defined by law, exhibit somewhat elusive characteristics even where one attempts to reduce them to fundamental doctrinal elements; even where one can successfully map out 'hard' law, that body of law itself will rely in part on other

³ *Memorandum of Understanding and Supplementary Agreements Between the United Kingdom Government, the Scottish Ministers, the Welsh Ministers, and the Northern Ireland Executive Committee* (UK Government, 2013).

qualifying documents and conventions that are an active element of its legalistic existence but that are not fundamentally contained 'within' it.

The main energy governance arrangements between and within the Devolved Administrations are described in Cowell et al (2015), from which Table 1 is reproduced. However, this has neglected the underlying sophistication of legal arrangements, highlighting a pitfall of the 'lawless' research undertaken in this area. In order to draw out some of the '*constitutivities, complexities, and contingencies*' (Delaney, 2015) that underpin energy governance across the UK, we examine the legal arrangements relating to the specific powers accorded to the legislatures within Northern Ireland, Scotland and Wales under legislative devolution. England, which is included in Table 1 for the purposes of general reference, is omitted from the broader discussion due to the fact that England's governance arrangements differ considerably from the UK's other subnational jurisdictions; most particularly, England does not operate an equivalent subnational legislature and Devolved Administration. As implied by Table 1, and as will be further seen below, the Devolved Administrations have very different formal powers: Northern Ireland actually has the greatest extent of devolved powers, despite the fact that it is the smallest administration; Scotland has the largest share of renewable resources and has aspired to greater autonomy in the field of energy, yet it acts on a narrower formal legal basis; and Wales has a much more limited range of devolved energy powers. .

Table 1 – Devolution of Energy-Related Powers in the UK (from Cowell et al, 2015)

Country	Energy policy is...	Planning and consents (onshore)	Planning and consents ^a (offshore)	Economic development spending
Northern Ireland	Fully devolved	Fully devolved	Fully devolved	Fully devolved
Scotland	Scope to shape delivery of some schemes	Fully devolved	Fully devolved	Fully devolved
Wales	No powers	Partial powers over planning policy and consent for smaller schemes (below 50 MW)	Power to determine applications up to 1 MW (exception under Transport and Works Act 1992)	Fully devolved
UK & England	Full competence	Full policy competence for England, partial for Wales; full competence over major projects (50 MW plus)	Full competence for English and Welsh Waters (subject to Welsh exceptions, above)	Fully devolved

^aIssues of marine licensing powers, and consenting for onshore connections, are not included for simplicity. The offshore regime applies principally to applications in UK territorial waters (i.e. up to 12 nautical miles and designated renewable energy zones).

(i) Northern Ireland

In the case of Northern Ireland, the main devolving statute is the NI Act 1998. Although complicated by a series of suspensions and qualifying agreements,⁴ the NI Act sets out the key arrangements for devolving particular ‘matters’ to Northern Ireland, so that the Northern Ireland Assembly can legislate on them (NI Act 1998, s.6). These are described by the legislation as *transferred matters* (NI Act 1998, s.4(1)). A further category consists of matters that the Assembly can legislate on where it has received permission to do so from the national level (specifically, from the NI Secretary of

⁴ The Northern Irish government institutions underwent a period of suspension in 2000 (provided for under the terms of the Northern Ireland Act 2000, since repealed), and a further period of suspension between 2002-2007. A Transitional Assembly was created under the Northern Ireland Act 2006 with a view to facilitating the government’s full restoration, and the process was extended under the Northern Ireland (St Andrews Agreement) Act 2006, which gave effect to the St Andrews Agreement, and further developed under the Northern Ireland (St Andrews Agreement) Act 2007.

State) (ibid). These are described as *reserved matters*, and Northern Ireland does not normally seek to legislate in this area. A third and final series of matters are classified by the legislation as *excepted matters* (ibid). These are matters of national importance that are controlled at the national level, and that are therefore beyond the scope of Northern Ireland's competence. Reserved matters could become transferred matters in the future (and conceivably, vice versa).

Schedule 2 to the NI Act 1998 specifies *excepted* matters and Schedule 3 specifies *reserved* matters, as shown in Table 2. This demonstrates that despite 'devolution', there is a broad swathe of powers that remain at the 'national' level, and while energy is generally devolved, nuclear⁵ is excepted, with 'nuclear energy' and nuclear power stations ('nuclear installations') remaining a 'nation' responsibility. Attention should also be drawn to the 'taxes or duties' exception (NI Act 1998, Schedule 2.9) as energy governance is frequently operationalized through a variety of economic mechanisms, including the Renewables Obligation, Feed in Tariffs, Contracts for Difference etc. Therefore, should the Northern Ireland Assembly seek to design or develop its own particular economic tools in the interest of accelerating Northern Irish energy decarbonisation, or aligning its arrangements with the Republic of Ireland, the 'tax and duty' exception will likely restrict this. Similarly, 'international relations' are excepted under Schedule 2.3, thus restricting the scope for the Northern Ireland Assembly to engage in international climate change agreements, or strike bilateral, cross-border energy arrangements with the Republic of Ireland.⁶ This exception includes restrictions upon direct relations with the EU and its supranational institutions (NI Act 1998, Schedule 2.3).

⁵ This is fully expressed as '[n]uclear energy and nuclear installations, including nuclear Safety, security and safeguards, and liability for nuclear occurrences' (NI Act 1998, Schedule 2.18).

⁶ Though it is notable that a Single Electricity Market operates on the island of Ireland (with UK Government's permission).

Table 2 – Northern Ireland Act 1998: Excepted and Reserved Matters

Status	Matters
<p>Excepted Matters (Schedule 2.1-21)</p>	<ul style="list-style-type: none"> • The Crown, including succession to the Crown and a regency. • The Parliament of the United Kingdom. • International Relations. • Military Defence. • Control of nuclear, biological and chemical weapons and other weapons of mass destruction. • Dignities and titles of honour. • Treason but not the power of arrest or criminal procedure. • Nationality, immigration, free movement of persons. • Taxes or duties including child trust funds and saving gateway accounts. • National Insurance, state pensions, tax credits, health in pregnancy grant, child benefits and guardians allowance. • Appointment and removal of judges and similar office holders. • Elections. • Political Parties, Elections and Referendums Act 2003. • Coinage, legal tender, bank notes. • National Savings Bank. • Protection of Trading Interests Act 1980. • National security and official secrets. • ‘Nuclear energy and nuclear installations, including nuclear safety, security and safeguards, and liability for nuclear occurrences’. • Regulation of sea fishing outside the Northern Ireland zone. • Regulation of activities in outer space. • Northern Ireland Constitution Act 1973.
<p>Reserved Matters (Schedule 3.1-41)</p>	<ul style="list-style-type: none"> • Functions of Minister of the Crown. • The office and functions of the Attorney General for NI • Property belonging to the Crown or Her Majesty’s Government. • Navigation and merchant shipping. • Civil aviation. • The foreshore, sea bed and subsoil. • Domicile. • Postal Services Act 2000. • Disqualification, membership and privilege concerning the Northern Ireland Assembly. • Criminal Law, the chief inspector of Criminal Justice in Northern Ireland. • Maintenance of public order; Parades Commission for Northern Ireland. • Aspects of the Police Service of Northern Ireland. • Firearms and explosives. • Civil defence. • Appeals to the Supreme Court and associated legal aid; Civil Contingencies Act 2004. • The Court system. • Civil Service Commissioners for Northern Ireland. • Social Security Commissioners and Child Support Commissioners for Northern Ireland. • Aspects of the Social Security Advisory Committee and Industrial Advisory Council. • Vaccine Damage Payment Scheme. • Import and export controls and trade with places external to the UK.

	<ul style="list-style-type: none"> • National Minimum Wage Act 1998. • Pension Schemes Act 1993. • Financial services and markets. • Building Societies Act 1986, Friendly Societies Act 1992. • Money Laundering Regulations, Transfer of Funds (Information on the Payer) Regulations. • Regulation of anti-competitive practices and agreements; abuse of dominant position; monopolies and mergers. • Intellectual property. • Units of measurement. • Telecommunications, broadcasting, internet. • National Lottery. • Xenotransplantation. • Surrogacy arrangements. • Human Fertilisation and Embryology Act 1990. • Human genetics. • Research Councils, including the Arts and Humanities Research Council. • Industry assistance under Part III of the Industrial Development Act 1982. • Consumer Safety in relation to goods. • EU technical standards relating to products. • Sections 3(5) to (7) of the Environmental Protection Act 1990. • Data Protection Law. • Oaths and declarations.
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As noted above, reserved matters specified in Schedule 3 to the NI Act 1998 require the Secretary of State’s permission if the Northern Ireland Assembly is to legislate (NI Act 1998, s.8). As shown in Table 2, a wide range of powers are placed beyond the Devolved Administration’s immediate reach through this mechanism, including many politico-legal fields that are relevant to energy decarbonisation; however, certain matters within this sphere may be connected to energy in especially notable ways. Although not immediately apparent, the reservation placed upon section 3(5) to (7) of the Environmental Protection Act 1990 (‘EPA 1990’) embodies one of the most significant reservations (NI Act 1998, Schedule 3.39). This provision empowers the Secretary of State to set emissions limits. The discretion is extremely broad, for the EPA 1990 provisions cover emissions of *any* substance, and the limits may attach to *any area* within the United Kingdom.⁷ Thus, greenhouse gas emissions (emissions ‘substance’) originating from Northern Ireland’s energy sector fall legitimately within the scope of these laws. In locating these sorts of emissions controls at the national level, this element of the NI Act 1998, read in conjunction with the EPA 1990, participates

⁷ EPA 1990, s.3(5)(a):
The Secretary of State may make plans for establishing limits for the total amount, or the total amount in any period, of any substance which may be released into the environment in, or in any area within, the United Kingdom[.]

in a legislative continuum that harmonises with the state-level positioning of emissions controls under the terms of the CC Act 2008.

It is also notable that the reservation involving the foreshore, sea bed and subsoil includes ‘submarine pipe-lines; submarine cables, including any land line used solely for the purpose of connecting one submarine cable with another’ (NI Act 1998, Schedule 3.5). This suggests that the Northern Ireland Assembly must seek the Secretary of State’s permission where it intends to independently legislate or craft policy that will affect energy cables falling within this provision, which will be engaged in relation to major grid connections, offshore wind development necessitating submarine cabling, etc. In practice these sorts of issues tend to be administered by the Crown Estate, acting as a ‘centralising’ function across the UK.⁸ Further, the reservation pertaining to ‘Import and export controls and trade with places external to the UK’ places constitutional limits on any autonomous Northern Irish energy trade with external nations (NI Act 1998, Schedule 3.20) (although there is a nationally permitted Single Electricity Market (SEM) operating across the island of Ireland, administered primarily by Northern Ireland and the Republic of Ireland).

Transferred matters (i.e. those considered to be ‘devolved’) are not actually set out in the NI Act 1998. Instead, if matters are *not* expressly excepted or reserved under the terms of the Act then they are to be understood as having been devolved (NI Act 1998, s.4).⁹ ‘Energy’ as a general category is conspicuously absent from the excepted and reserved Northern Ireland tables above; thus, from its exclusion within Schedules 2 and 3 to the NI Act 1998, energy is to be understood as falling within the transferred category. It is also evident that certain additional competences that have a capacity to exert major influence on energy provision are absent from Table 2. In particular, planning, aspects of utility regulation and housing are absent, and are therefore to be interpreted as transferred matters.

In devolving energy competence to Northern Ireland, constitutional law therefore embeds fairly extensive energy powers at the subnational scale. However, by examining the way in which energy

⁸ In the case of Scotland, it is notable that s.36 of the Scotland Act 2016 has amended Section 90B of the SA 1998 such that control of the Crown Estate in Scotland is in the process of being devolved to the Scottish Parliament. From here, the Smith Commission has recommended that key aspects of Crown Estate responsibilities in Scotland should be further devolved to relevant local authorities.

⁹ ‘In this Act “transferred matter” means any matter which is not an excepted or reserved matter’: NI Act 1998, s.4(1).

powers have been scaled to Northern Ireland in the subnational arena under the devolution arrangements, it can be clearly seen that the relatively simple observation that energy is ‘Fully Devolved’ (as noted by Cowell et al 2015 and others) substantially overlooks the contingent nature of the Devolved Administration’s responsibilities and the complex way in which the scope to act, or not act, is underpinned by a broader range of conditions and qualifications.

(ii) Scotland

In the case of Scotland, it has been highlighted that this jurisdiction has exerted a particularly vigorous and cogent approach to growing its energy economy, which some have noted as being linked to the Scottish National Party’s aspiration for independence (Cowell et al 2015). The Initial arrangements for Scottish devolution that were set out in 1998 have since evolved, in particular recently under the terms of the Scotland Act 2012 (‘S Act 2012’), which has increased the powers transferred to the Scottish Parliament, and the Scotland Act 2016 (‘S Act 2016’), which augmented these powers in the wake of the Scottish Referendum on Independence from the UK (18 September 2014), where Scotland returned a ‘No’ vote to independence. However, the primary devolving statute remains the S Act 1998.

The devolved arrangements provide for a Scottish Parliament (S Act 1998, s.1), which has primary powers to legislate on matters devolved to Scotland. Acts of the Scottish Parliament are not permitted to stray directly beyond the Parliament’s designated legislative competence (S Act 1998, s.29). The S Act 1998 sets out *reserved matters* (both ‘general’ and ‘specific’) at Schedule 5 to the Act (S Act 1998, Schedule 5). These are matters that lay outside the Scottish Parliament’s legislative remit, analogous to excepted matters under the NI Act 1998. These matters are tabulated in Table 3, where it can be seen that Head D within the Specific Reservations expressly engages energy. Head D contains a series of subsections, each of which delineates a subsidiary element of energy competence that is expressly reserved. Table 3 also summaries these subsidiary provisions.

Table 3 – Scotland Act 1998: Reservations

Status	Matters
Part 1 - General Reservations (Schedule 5.1–10)	<ul style="list-style-type: none"> • The Constitution. • Political Parties. • Foreign affairs. • Public service. • Defence. • Treason.
Part II – Specific Reservations (Schedule 5, Heads A-L)	<ul style="list-style-type: none"> • A - Financial and Economic Matters. • B - Home Affairs. • C- Trade and Industry. • D - Energy. • E - Transport. • F - Social Security. • G - Regulation of the Professions. • H - Employment. • J - Health and Medicines. • K - Media and Culture. • L - Miscellaneous.
Part II – Subsidiary Reservations (Schedule 5, Head D)	<ul style="list-style-type: none"> • Electricity. This includes the ‘Generation, transmission, distribution, and supply of electricity’. • Oil and gas. • Coal. • Nuclear Energy. • Energy Conservation.

In comparing the level of energy competence accorded under legislative devolution here to Scotland with that of Northern Ireland, it becomes immediately clear that the arrangements for Scotland presently place core energy powers beyond the reach of the Scottish Parliament. ‘Electricity’ is conceived of as a chain that is made up of links, and each of these links – ranging from ‘[g]eneration’ to ‘transmission’ to ‘distribution’ and ‘supply’ – is classified as a national matter (S Act 1998 Schedule 5, Head D.1). Reservations placed upon oil, gas and coal reinforce this arrangement (S Act 1998 Schedule 5, Head D.2-3), for oil and gas remain the key energy sources (notwithstanding the rapid ongoing deployment of renewable energies in Scotland). Similarly, UK Government presently intends nuclear energy to play a major role in the UK’s energy mix over the coming decades, and this sphere of competence is embedded at the national scale (at Head D.4). ‘Energy conservation’ is also clearly reserved (S Act 1998 Head D.5); however, the reservation is loosened somewhat by a D5 ‘Exception’ provision that permits ‘encouragement of energy efficiency other than by prohibition or regulation’ (S Act 1998 Schedule 5, Head D.5, ‘Exception’). More generally, an additional reservation includes ‘trade and industry’ (Head C). From an *energy* trade and industry perspective, this reservation suggests that the Scottish administration is subject to significant constitutional restrictions upon, for example, its capacity to attract and engage inward investment in Scottish

energy infrastructure and technology via specially tailored devolved legislation. Of course, in general terms these sorts of issues are somewhat incidental, for it is already clear that energy itself is broadly reserved.

Although significant powers are executively devolved in the sphere of energy to Scotland, the restraint placed upon the Scottish Parliament's capacity for action in this sphere by legislative devolution is clearly pronounced. It is also notable, however, that over the time of writing the Scotland Act 2016 has been passed by national Parliament, which further devolves certain powers to the Scottish Parliament. Under this Act, a broadening of energy-specific competences is occurring in the sphere of onshore oil and gas extraction (see ss.47-49), and the Scottish Government's facility to design energy efficiency and fuel poverty schemes (see ss.58-59).

Under the terms of the Scottish framework, areas excluded from the reserved listing at Schedule 5 to the S Act 1998 are understood to be devolved (S Act 1998, s.30(1)). Thus, for instance, from its exclusion from Table 3 it is evident that notable devolved powers include competence in the sphere of planning. The Devolved Administration has been able to leverage these powers strategically, relaxing planning restrictions in order to augment renewables deployment and electricity grid reinforcement. Housing is also absent from Table 3, and housing powers have created constitutional space in the sphere of energy in the interest of augmenting domestic energy efficiency. Therefore, while Scotland has received less significant legislatively devolved energy powers than Northern Ireland, legislative devolution has nonetheless allowed Scotland some facility to exert significant control over the way in which decarbonisation has progressed.

More broadly, Scotland's facility to realise change has been operationalized through the use of alternative modes of governance (planning, developing business confidence), and also through the exertion of direct legal agency, as witnessed perhaps most particularly by Scotland's own subnational version of the CC Act 2008, the Climate Change (Scotland) Act, passed in 2009 by the Scottish Parliament ('CC(S) Act 2009'). Notwithstanding subservience to the CC Act 2008 framework, here the Scottish Parliament has taken a pro-active position by legislating in this area in its own right. This does not mean that Scotland is no longer subject to the CC Act 2008; it means, rather, that whilst remaining subject to the national framework Scotland has used its devolved

authority to adjust its own intentions and goals within the acceptable parameters of that framework and national Parliament's intentions. The CC(S) Act 2009 sets more stringent decarbonisation targets for 2020 than those found elsewhere in the UK. At section 2 the CC(S) Act 2009 establishes a 42% interim emissions reduction target for 2020 based on 1990 emissions levels (CC(S) Act 2009, s.2(1)). This exceeds the CC Act 2008 equivalent interim target significantly.

(iii) Wales

As noted in Table 1, Wales' Devolved Administration retains the least energy powers. The National Assembly for Wales was established under section 1 of the GoW Act 1998, and the initial arrangements were subsequently adjusted under the terms of the Government of Wales Act 2006 ('GoW Act 2006'). In particular, the GoW Act 2006 established an executive Welsh Assembly Government that was separate from the Welsh legislature (that is, separate from the National Assembly for Wales; GoW Act 2006, s.1, s.45). It also empowered the Assembly to create subordinate legislation (GoW Act 2006, s.93). Additional adjustments following in the wake of a Referendum held in March 2011 further extended Welsh legislative capacity, and at the present time the Assembly is empowered to create law in twenty specific areas of devolved competence (GoW Act 2006, Part 4).

The Welsh framework defines devolved competence as falling into twenty devolved 'subjects' (GoW Act 2006, Schedule 7 Part 1). In contrast to the Northern Irish and Scottish legislation, these competences are actively listed, so omissions from the stated subjects are non-devolved and are therefore under the auspices of national Parliament. 'Fields' within which the Assembly may legislate are established at GoW Act 2006 Schedule 5, and are limited via GoW Act 2006 s.108 to a series of subjects set out at GoW Act 2006 Schedule 7. Further limits within Schedule 7, described as 'exceptions', are placed on certain subsidiary elements of some subjects.¹⁰ Table 4 summarises these areas of devolved competence.

¹⁰ See also GoWA 2006 s.108, 'Legislative competence'.

Table 4 – Government of Wales Act 2006: Devolved Subjects

Status	Subjects
<p style="text-align: center;">Devolved Subjects (Schedule 7, Subjects 1-20)</p>	<ul style="list-style-type: none"> • Agriculture, forestry, animals, plants and rural development. • Ancient monuments and historic buildings. • Culture. • Economic development. • Education and training. • Environment. • Fire and rescue services and fire Safety. • Food. • Health and health services. • Highways and transport. • Housing. • Local government. • National Assembly for Wales. • Public administration. • Social welfare. • Sport and recreation. • Tourism. • Town and country planning. • Water and flood defence. • Welsh.
<p style="text-align: center;">Energy-Specific Exceptions (Schedule 7 Subject 4)</p>	<ul style="list-style-type: none"> • ‘Generation, transmission, distribution and supply of electricity’ • ‘Energy conservation, apart from the encouragement of energy efficiency otherwise than by prohibition or regulation’ • ‘Coal, including mining and subsidence, apart from land restoration and other environmental matters’ • ‘Oil and gas’ • ‘Nuclear energy and nuclear installations... including nuclear safety and liability for nuclear occurrences... but not including disposal of very low level radioactive waste moved from a site requiring a nuclear site licence’

Both the form and content of the Welsh energy exceptions echo the reservations placed upon energy in the Scottish legislation. The ‘Environment’ subject (Subject 6) includes ‘pollution’ (GoW Act 2006, Schedule 7 Subject 6), but exceptions clarify that this does not encompass greenhouse gas emissions from energy generation. The ‘Housing’ subject permits the ‘[e]ncouragement of home energy efficiency and conservation, otherwise than by prohibition or regulation’ (GoW Act 2006, Schedule 7 Subject 11), echoing the transfer of (limited) energy efficiency powers to the Scottish administration (S Act 1998). Thus overall legislative devolution affords the Welsh administration the opportunity to reduce energy emissions indirectly by encouraging a (largely domestic) reduction in energy consumption. The Welsh administration therefore has highly limited energy competence under the present constitutional arrangements, and unlike Scotland does not have significant legal agency to help engage other modes of governance (particularly planning for large projects) to

support its indigenous energy aspirations, as highlighted by delays over the Swansea Bay Tidal Lagoon.

Discussion

The spatially configured nature of the UK's 'Energy Constitution', therefore, defines the asymmetric opportunities and limitations for energy governance at the subnational level, influences the ability of the Nation State to control and deliver on its national and international obligations, and in so doing is itself shaped by specific socio-spatial influences. The present distribution of powers is significantly conditioned by the extent to which the initial devolutionary power arrangements of the late 1990s apply to energy governance, with these arrangements interacting with certain dynamic changes to primary constitutional legislation and broader organizing forces that include quasi-legislative mechanisms. The 'Energy Constitution' provides Northern Ireland with the greatest level of *legislative* agency around energy (being a 'transferred' matter in the NI Act 1998), despite the jurisdiction having arguably the least economic and political capabilities to deliver a coherent vision of its energy future. By contrast, 'energy' is not a formally devolved matter in either Scotland or Wales (being a 'Specific Reservation' under the S Act 1998 and a Schedule 7 Subject 4 'Exception' under the GoW Act 2006). In this respect, beyond their limited agency to reduce emissions *indirectly* by encouraging reductions in consumption across a wide range of sectors, most other aspects governing decarbonisation of energy (including electricity generation, transmission, distribution, supply and policies over fossil fuels and nuclear) are withheld from Wales and Scotland and retained to Westminster.

However, these high-level constitutional exclusions are mediated by the deployment of other modes of governance and the engagement of other responsibilities that have been devolved. Thus a simple reading of 'energy powers' will overlook the influence that Scotland has been able to exert through its legislatively devolved planning powers (i.e. facilitating expansion of wind energy, blocking further nuclear power stations), its executively-devolved control over financial incentives (e.g. promotion of marine energy), or the setting of nuanced subnational targets and policy ambitions via the CC(S) Act 2009. Similarly, Jenkins (2005), writing shortly prior to the GoW Act 2006, has pointed out that despite Wales having restrictions on its primary legislative powers, it has been able to evolve distinctive approaches to a range of environmental issues, many fundamental to greenhouse gas reduction (such as waste and air pollution) by using secondary and executive-based

powers. Indeed, the Welsh Assembly has succeeded in cementing aspects of Wales' capacity for progressive action in subnational law, as with the Well-Being of Future Generations (Wales) Act 2015, which will influence energy-related decisions and strategies. Therefore, while constitutional issues define the core blocks of power distribution underpinning energy governance, subnational institutions have used the powers they have been given to progress (or conceivably frustrate) the wider decarbonisation challenge.

In order to provide a final reflection on the issues raised by an exploration the UK's Energy Constitution, we return to the three themes taken from Delaney (2015), *constitutivities*, *complexities* and *contingencies*, and consider what these say about energy governance in the UK. In terms of *constitutivities*, constitutional arrangements have been fundamental in defining the meaning of 'Northern Ireland', 'Scotland' and 'Wales', and they have also shaped ongoing struggles over increased devolution, and even independence. The nature of control over critical resources of 'nationhood', such as energy, also allows distinct constellations of governance to emerge where key interests feel they can (or cannot) exert influence, thus potentially linking subnational administrations with sources of power at different geographic scales, each of which will be open to different interests and ideological arguments. Thus, the devolution settlement plays a very important role in both reifying the wider politics of transition and in defining the opportunities of re-territorializing nationalistic aspirations.

In terms of *complexity*, as noted above, while the various Acts of devolution provide important frameworks for the control of key mechanisms of decarbonisation, these constitutional arrangements are overlain by an intricate mix of other influences, imposing other limits and creating opportunities for active legal agency at different scales. These include energy market structures and UK Government's ongoing process of Electricity Market Reform, the allocation and deployment of UK block grants, etc. Furthermore, the legal infrastructure is itself more complex than a narrow interpretation of the powers set out in the Acts of devolution can suggest. For example, and as previously highlighted, such an approach does not probe the process of *executive* (as opposed to *legislative*) devolution. Parpworth (2014) notes, 'devolution' taken in a broad conceptual sense 'may involve the transfer of functions from central government to a subordinate executive in addition to or as an alternative to the transfer of legislative power from one Parliament to another. In other words, devolution may be "executive", "legislative", or both.' (pp.161-162). In terms of

Scotland in particular, it is notable that powers including, for example, the facility to grant ‘consents for power stations and overhead electricity lines’ have in fact been transferred via executive devolution to Scottish Ministers (Scottish Government 1999, p.13), as has ‘the implementation of legislation establishing the Renewables Obligation (which since 2003 has been the key incentive for large-scale renewable investment)’ (Toke et al 2013, p.62). The Scottish Government has been able to leverage its executively devolved collateral controls in order to increase the extent to which it has been able to shape Scotland’s energy decarbonisation agenda in a partially autonomous fashion.

As noted above, the complexity of the scope and extent of energy devolution is qualified in addition through other ‘soft law’ / quasi-legislative mechanisms, and, further, through the active involvement of the courts. Thus the Supreme Court has been compelled on a number of occasions to address the extent and limits of particular (non-energy specific) devolved powers where uncertainty has arisen as to whether subnational legislative action ought to be interpreted as falling *within* a particular devolved competence, or whether the bounds of that competence have been exceeded (thereby encroaching upon Westminster’s competence)¹¹.. The key points here are threefold: firstly, it is often difficult to gauge in legal terms where precisely the fuzzy dividing lines between particular devolved-reserved powers are to begin and end; secondly, and as with other areas of law, core legislative provisions can be dynamically interpreted by the courts; and thirdly, given that the UK’s ‘Energy Constitution’ is geographically differentiated, such case law will inevitably reflect the wider socio-spatial context of devolution. The complexity of these arrangements becomes quite acute in the sphere of energy when considered in the context of the key ‘national’ greenhouse gas emissions reduction statute, the CC Act 2008. Reid’s work on Scotland (2012a, 2012b) suggests that these governance complexities highlight that there is no single ‘Nation State’ endeavour to tackle climate change, but that this is progressed through an inter-dependency and mutuality of actions at national and subnational scales. Muinzer’s critique (2016) of the CC Act 2008 employing multilevel governance theory and doctrinal legal analysis has demonstrated that

¹¹ For example, due to a challenge from Imperial Tobacco Limited, the Supreme Court has ruled that sections of the Tobacco and Primary Medical Services (Scotland) Act 2010 do fall within the Scottish Parliament’s legislative competence. Similarly, the Supreme Court was required to confirm that provisions of the Local Government Byelaws (Wales) Bill 2012 were within the legislative competence of the National Assembly for Wales. More recently, the fuzzy boundaries between devolved and national powers were tested in the *Recovery of Medical Costs for Asbestos Diseases (Wales) Bill* [2015] case, where the Supreme Court determined that the National Assembly for Wales lacked the legislative competence to pass the *Recovery of Medical Costs for Asbestos Diseases (Wales) Bill*.

the devolved jurisdictions do play a major role in determining whether the UK will achieve its CC Act 2008 targets, despite the 'national' nature of the targets themselves.

This is key in understanding the *contingent* nature of the UK's 'Energy Constitution', highlighting the interdependency of different levels of governance, from local authorities to UN Climate Conventions. The emphasis here is on the interplay of action engaging the subnational devolved institutions and the Nation State, which cannot be fully grasped by a simple 'read-off' of legislatively devolved powers. We can understand the contingency operating in at least three different dimensions. First is the interdependency of decarbonisation policies and practices; for example, a key driver of this is currently the achievement of EU targets, which formally rest with the Nation State, which in turn relays on the exploitation of renewable resources, the majority of which lie within the devolved territories. The ability of the Devolved Administrations to fulfill, frustrate or exceed such targets then depends on how they deploy the (limited) powers in their control (not least planning responsibilities) and how they exploit other modes of governance to work around limits to their competence. Second, the actual primary legislative powers that the Devolved Administrations were provided with in the initial devolved settlement were significantly dependent on a pre-devolved distribution of powers and as such were shaped by intricate socio-spatial influences, which continue to influence a varied demand for future evolution of such arrangements. Third, we can understand that through numerous mechanisms described above, the various devolved arrangements engaging energy (and any other policy arena) are by their nature somewhat fluid and indeterminate; they are thus contingent on a specific point in time and unfolding (legal, political, technological) developments may result in greater opportunities or constraints in the future.

The mapping of the formal powers that underlie the UK's energy governance suggests that 'lawless' analyses fail to quite capture the approximate parameters of where devolved/withheld competence begins and ends, and it serves to highlight how energy governance fundamentally overlaps and intersects with a variety of broader socio-economic fields (Mazur 2013). This strikes at the heart of normative debates engaging the notion of 'the right scale' at which climate related action ought to be taken (Cowell et al, 2013, p.2). Indeed, the notion of a 'right scale' may be asking precisely the wrong question. In this respect, Sovacool (2008) has explored the relationship between (American) state and federal power to conclude that an 'interactive federalist' approach likely affords the

optimum conditions for effective national decarbonisation. This approach assumes that ‘national, [subnational], and local governments should have overlapping... roles in their environmental policymaking’ (Sovacool, 2008, p.398). Sovacool advocates a tailored application of this frame to climate and energy decarbonisation, and proposes:

‘a model of interactive federalism where the federal government sets national “floors” for renewable energy deployment and climate change quotas that the states can then exceed. This stance captures a number of benefits from devolved and centralized theories of federalism while avoiding many of their deficiencies’ (Sovacool, 2008, 398)

This provides a particular way to conceptualise the nature of the ‘overlapping’ seen to occur in the UK context where one juxtaposes the subnational and national energy-specific powers exposed above by the mapping of the law’s articulation of UK energy governance, even if it was not specifically designed as such. Thus, we can interpret the CC Act 2008 as establishing a minimum ‘floor standard’ for UK decarbonisation, where it establishes stringent nationwide emissions reduction targets for 2020 and 2050 and embeds these in a long-term legally binding and nationally applicable statute. Operating within the framework of this ‘floor standard’, the devolved jurisdictions are imbued by the constitutional settlement with a facility to tailor responses at localised scales, facilitated by the opportunities and limits afforded by the asymmetrically devolved competences identified above.

Within these parameters, the Scottish Parliament has employed its facility for action in this interactive national-subnational setting in a way that has permitted the jurisdiction to press beyond the mandatory ‘floor standard’, through legislating the more stringent CC(S)A 2009. In this regard, it is also notable that the National Assembly for Wales has received permission to pass the Environment (Wales) Act 2016 over the time of writing. Part 2 to this Act contains significant climate change provisions that now grant the Welsh Ministers the power to put in place statutory emission reduction targets. In line with the CC Act 2008 ‘floor standard’, the subnational Act asserts that these targets must be designed to work towards an 80% emissions reduction target for 2050 (at minimum); s.29.

Questions of scale have dominated how we frame the problem of the governance of energy, climate change and decarbonisation, emphasizing the need for a clear understanding of the complexity of

energy's legal framework. Weiner (2007) has argued that it is inappropriate to combat climate change through subnationally-led action; conversely, however, Kates and Wilbank (2013) have noted that where politico-legal capacities for action are brought nearer to the public this can serve to stimulate public participation and a sense of individual responsibility extending to climate change initiatives. Furthermore, decentralisation also 'ensures that policy mechanisms are flexible enough to adapt to local circumstances and needs, creating "ecologies of scale" that can maximize social welfare and minimize cost.' (Sovacool, 2008, pp.474-475) Indeed, capacities of this sort can permit subnational action to exceed normative national standards, thereby potentially serving as a positive example to broader spheres of governance (as has been the case of Scotland).

Therefore, an understanding of the UK's 'Energy Constitution' provides a more nuanced picture of the intricate nature of authority and control of decarbonisation in the UK, highlighting an interplay of space, law and scale in energy governance. This can be contrasted, on the one hand, with more traditional legal perspectives that place an overwhelming faith in laws' 'rules, their internal logic or their accordance with abstract principles' (Cowan et al, 2014, p.6), and on the other hand, with geographies of transition that underplay the strong influence of complex legal instruments. This perspective therefore emphasizes the need to appreciate the way in which law must be viewed within wider contexts, and instead of simple 'doctrines' we should think of the 'Energy Constitution' as being composed of a complicated spectrum of legal spatialities where jurisdictional boundaries are pluralistic, fuzzy and fluid. These circumstances are inextricably bound up with the multi-scalar complexities underlying the decarbonisation challenge, which in turn cannot be effectively isolated from pertinent legal frameworks. There is clearly a much wider potential for further legal analyses to elucidate energy transitions, both in terms of how other scales of governance interact over decarbonisation (local-subnational, national-EU, EU-global) and how the practices, norms, customs and behaviours of non-state actors (Delaney, 2015) are facilitated by spatial-legal factors, thereby adding crucial insights into regime level drivers of social-technical transitions.

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