An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit

Muinzer, Thomas

Published in:
European Journal of Current Legal Issues

Publication date:
2017

Document Version
Publisher's PDF, also known as Version of record

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit

Thomas L Muinzer *

Abstract

The UK is presently engaged in a process of leaving the EU. This process, and its broader effect on UK and EU law and governance, is complex and uncertain. This analysis hones in on the sphere of climate and energy governance, investigating the EU's supranational regime in order to elucidate fundamental aspects of the UK's withdrawal from the EU for the UK Low Carbon Transition in the sphere of energy decarbonisation. The analysis focuses most pointedly on the EU arena, rather than the UK's internal state arena, and elucidates aspects of the impact of Brexit on the UK through examination of the EU-UK legal and political interface. This permits lessons to be drawn that can usefully inform broader assessments of the significance of Brexit's impact on the UK's ongoing climate and energy decarbonisation process.

1. INTRODUCTION

On Thursday 23rd of June 2016 the UK voted by way of Referendum to leave the EU, with a Leave majority being returned by 52% against a 48% Remain minority. [1] As such, the UK has since been on a trajectory to leave the EU. UK Government employed its facility to invoke Article 50 of the Treaty on European Union on Wednesday 29th of March 2017, setting in motion a two-year EU withdrawal period. In accordance with Article 50, it is intended that a withdrawal agreement between the UK and the EU is to be negotiated and reached by the end of this time. The UK's notification of withdrawal was preceded by a UK Supreme Court ruling that held that UK Parliament was to be consulted before Article 50 could be triggered by UK Government, [2] and Parliament consequently passed a European Union (Notification of Withdrawal) Act 2017 to permit the action. [3] As

part of the exiting process, it is necessary for the UK to repeal the European Communities Act 1972, which gives effect to EU law in the UK. In late 2016, Pincott, Emmett and Jones noted that:

> [g]iven the volume of [UK] legislation affected [by withdrawal from the EU], the government is considering a Great Repeal Bill to grandfather existing regulatory regimes, retaining EU legislation which could then be amended or repealed as appropriate at a later date. [4]

It has since been confirmed that the government will follow this approach, with a Great Repeal Bill being brought forward under the official title of the European Union (Withdrawal) Bill 2017-2019. This is intended to both repeal the European Communities Act 1972 and convert extant EU law into UK law, such that EU law will be received immediately into the UK legal order on the moment that Brexit is complete. [5] After the point at which the UK has left the EU, it is intended that UK Parliament and, where appropriate, the UK's devolved Parliaments can take decisions on which laws to keep, amend or repeal over time. It is also intended that UK Government itself will play a direct role in this process of legal readjustment, which (it is proposed at the time of writing) will be authorised under the terms of the European Union (Withdrawal) Bill 2017-2019 through the use of controversial delegated powers designed to facilitate the creation of secondary legislation. [6]

The impact of the process of leaving the EU on UK (and indeed EU) law and governance will be complex and pervasive. [7] This analysis focuses on one of the most challenging political-legal spheres, climate and energy governance, in order to elucidate fundamental elements of the implications of the UK's withdrawal from the EU for aspects of UK energy decarbonisation. Reference will be made at various stages to the methods and tools of political science in order to enrich the unfolding critique, most particularly multilevel governance theory. Multilevel governance conceptualises a series of 'levels' of governance, including an EU level and a national (here, 'UK') level. Multilevel governance theorists are concerned with the behavior, influence and changing relationships between key public and private actors ranging across and between these conceptual levels, and the multifarious policy networks that enmesh them. Institutional entanglement can be discerned across the levels, and the theory seeks to identify and throw into relief both 'vertical' and 'horizontal' instances of governmental and other sources of action and

interaction. [8] Reference will also be made to more conventionally 'state-centric' interpretations of EU integration, which tend towards understanding power as being most essentially concentrated in the hands of the Member State governments and associated national actors, [9] rather than significantly dispersed away to at least some strong degree to broader supranational (and subnational) actors as a consequence of the EU's wider governance regimes.

The EU 'level' occupies the primary site of focus in this study, with the national UK level occupying the subsidiary level of analysis; a central interest is to investigate climate and energy law and governance in the EU's supranational sphere in order to rationalise the balance of climate and energy power in the UK's EU governance setting. In clarifying and exploring these supranational imperatives, it is possible to draw lessons that provide a richer understanding of the implications of Brexit for UK climate and energy governance. The following analysis will: commence by addressing the importance and centrality of energy decarbonisation in the context of UK and EU climate governance; proceed to engage with the drivers of EU energy decarbonisation, and reflect on the bearing those drivers have on the UK governance experience; engage with EU climate law and policy in conjunction with consideration of pertinent supranational Treaty developments, thereby exposing and addressing crucial EU forces acting on Member States in this area so that the 'national' UK decarbonisation experience can be better informed by the (supra)national causal effect of EU climate governance, thus feeding into interpretations of the impact of Brexit.

2. THE IMPORTANCE OF ENERGY DECARBONISATION IN THE UK AND EU

A UK Low Carbon Transition is ongoing, [10] and within this process, significant decarbonisation of the energy sector has become a paramount national objective. [11] UK Parliament has set in place a major national statute that articulates the foundational framework of the UK's low carbon governance architecture, the Climate Change Act 2008 ('CCA 2008'). Certainly, adequate decarbonisation of the UK energy sector is essential if the requirements of the CCA 2008 are to be met. The CCA 2008 commits the UK as a whole to a 34% reduction in greenhouse gas

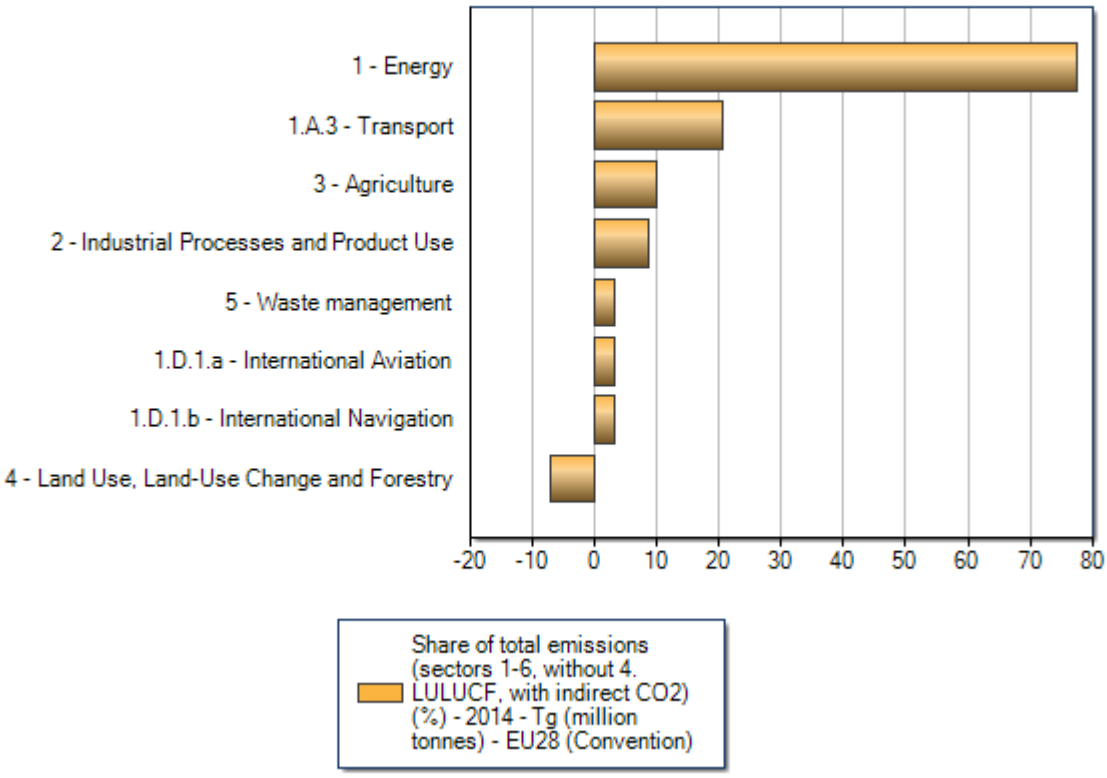
emissions based on 1990 baseline emissions levels by 2020 (this is known as the 'interim target'). [12] It also applies an 80% reduction target based on 1990 levels for 2050, [13] establishes a Committee on Climate Change to report and advise on the reductions process, [14] and facilitates greenhouse gas emissions trading schemes. [15]

The overall transition process is concerned with a specific 'basket' of greenhouse gases, listed in national law at s.24 of the CCA 2008. [16] In critiquing the CCA 2008 in order to assess the extent to which the national-level legal framework has taken account of the UK's multilevel governance environment, I have noted that '[t]he CCA 2008 is in effect the partial implementation answer to the substantial targets and legislative goals that have been developing in this area at the EU/supranational level.' [17] In other words, the CCA 2008 and associated UK law and policy partially embody a national-level reaction to important policy intentions and legislative goals crystallising at the supranational level within the UK's broader 'supranational-national-subnational' multilevel governance setting.

Against the backdrop of the interconnected landscape of UK-EU law, it should be understood that the EU's supranational institutions are, generally speaking, as eager (if not *more* eager) to strive toward a Low Carbon Transition as the UK's major state-level governance actors are (UK Government, national Parliament). Within the last ten years or so EU law and UK law have both come together to impose fairly rigorous greenhouse gas emission reduction targets upon the UK. [18] The UK's largest greenhouse gas-emitting sector is the energy sector; mirroring the national UK experience, this is also the EU's largest emitting sector. [19] Indeed, in stressing in 2010 that EU energy policy takes overt account of broadly construed 'energy related emissions', the European Commission declared that these emissions alone 'account for almost 80% of the EU's total greenhouse gas emissions', [20] meaning that the 'energy challenge is thus one of the greatest tests which Europe has to face.' [21] This statement from the Commission characterises some discernible spirit of urgency that has underpinned the EU energy emissions reduction process.

Indeed, the energy sector produces such a high and sustained proportion of UK/EU emissions that it would be difficult to see how either the UK or the EU could meet substantial reduction targets if the energy sector performed poorly in the overall reductions drive *even if* other major sectors

performed reasonably well. In the present context, the 'multi-level' aspect of multilevel governance theory provides a conceptual evocation of vertical and horizontal institutions, actions and forces that underpin UK-EU climate and energy governance processes [22] ; given that the 'national' concerns here in the sphere of energy echo precisely the same sorts of anxieties at the EU level, multilevel governance theory suggests not merely that these concerns are in some sense harmonious, but, more than this, that they are also to a significant extent mutually reinforcing across complex tiers of governance.



'Emissions Share by Sector in EU28, 2014'
Source: Europa, 'Data Viewer' [23]

It is also worth pointing out that 'energy' (that is, electricity and heat generation) is remarkably pervasive: for example, in the present context energy emissions from power generation can be seen to implicate a broad process that involves not only the power stations that generate the energy, but also those sectors of society that consume the stations' energy (i.e., the domestic sector, industrial sector, etc.). Strictly speaking, power generation emissions cannot be fundamentally separated out from sectors that consume the power, due to the pervasive qualities of energy

itself. Bearing this in mind, it is notable that it is considered pertinent to, and 'compatible' with, multilevel governance theory [24] to recognise that it has been demonstrated by political scientists that supranational-national relations can be viewed as operating within an EU governance architecture that constitutes a classic example of a 'differentiated polity'. [25]

A differentiated polity model located within the EU multilevel governance nexus assumes that the formation of political-legal outcomes is radically impacted by often distinctive and significantly disconnected policy networks that are informed to a pronounced extent in their own right by complicated and labyrinthine committees and associated bodies that shape policy options. [26] Peterson has commented that the 'multi-level system of governance' includes a spectrum of actors that 'thus "network" with each other to design, implement, and enforce EU rules.' [27] Given that multilevel governance theory interprets supranational-national energy governance processes as playing out within this sort of context, where this perspective is applied in the present case there can be little doubt based on the observable legal evidence that energy reforms at Treaty level over recent years have necessarily expanded and deepened the complex reach and range of this differentiated polity (see further below). This circumstance is augmented not only by the 'usual' sort of evolution whereby a discrete area of governance (here, energy) is expanded and developed in complex and labyrinthine ways across a broader range within the supranational-national governance nexus; it is further augmented by the pervasive nature of energy itself.

3. MULTI-LEVEL EU POLICY DRIVERS

While the preceding section has addressed the importance of energy decarbonisation to climate governance at the UK and EU levels of the multilevel governance nexus, this section is concerned to identify and interpret the key multi-level drivers present at the EU/supranational level of governance that have served to galvanise contemporary EU energy decarbonisation law and policy. In doing so, these drivers have resulted in imperatives that have filtered 'downward' to the national UK, [28] and that have also served to some extent to echo and reinforce extant UK-level political-legal drivers.

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

3.1 CLIMATE CHANGE

In the latter half of the 20th century and onward up to the present moment, an overwhelming majority of the international scientific community gradually came to agree, via a process of evidence-based reason, that: the earth is being acted upon in a far-reaching way by the phenomenon of global warming; and humanity is actively affecting this global warming process to a significant degree. [29] Climate law is the branch of the law that endeavors to engage directly with anthropogenic climate change and associated problems. [30] Anthropogenic climate change is caused chiefly by a stock of greenhouse gases present in the earth's atmosphere that traps some of the sun's heat, serving to warm the planet. The modern industrial revolution has been driven by a radical increase in the burning of fossil fuels, which in turn has raised the density of this atmospheric stock. Scientists have directly linked the anthropogenic ('human-induced') increase in the stock to a greater incidence of global warming. [31]

After China and the USA, the EU is the largest emitter of greenhouse gases in the world, and the European Commission has described the EU as 'the world's second largest energy market'. [32] The profound dangers that global warming poses both to mankind specifically and to the wider functioning of planet earth are well articulated in expert reports from the IPCC and broadly accessible books such as *Six Degrees* [33] and the *No-Nonsense Guide to Climate Change*. [34] Pittock has acknowledged the imperative of taking action with reference to the theoretical levels of risk and uncertainty posed by the problem. [35] These sorts of accounts exemplify the dual character of the general EU (and international) consensus on climate change, which suffuses governance relationships operating vertically and horizontally across the multilevel governance nexus: firstly, that a situation exists that exhibits the potential to become extremely dangerous; and secondly, that pronounced action is required to redress the issue at the present time before it reaches a tipping point and spirals out of control.

The EU has endeavoured to respond to these sorts of concerns by taking internal political action. [36] It has also acknowledged both its role as a major emitter and the existence of an ethical imperative that obligates it to take significant steps in order to counteract the problem that it has contributed to. [37] This action in turn has directly impacted on the UK, as both a major EU emitter and as a state that has been subject vertically

and horizontally to the EU's interactive governance forces across the duration of this process since being enmeshed directly in the EU's multilevel framework as a Member State (in 1973).

3.2 ENERGY SECURITY AND AFFORDABILITY

An inter-related and important EU governance driver pertains to the issue of energy security. As an advanced, affluent economy the EU has a high energy demand, and to produce this energy it relies heavily upon fossil fuels. The EU has highlighted that 'fossil fuels continue to be the major contributor to net electricity production in the EU-28' [38] ; with coal, oil and natural gas accounting for a substantial level of the EU's primary energy generation capacity, fossil fuels remain vital to the EU's stability and functionality. These fuels, however, are not only abundant sources of greenhouse gas emissions; they are also finite, and associated complex fluctuations in cost can attach to these energy forms. Their non-renewable status means that the earth's supplies are gradually becoming depleted. As resources diminish competition over these key sources of energy escalates, and a tendency towards a rise in costs that can be naturally generated by such circumstances interacts with other cost fluctuations associated with complex and frequently unpredictable fuel markets, posing challenges for EU energy security and affordability. The EU's level of energy security is therefore significantly threatened by the finite condition of the fossil fuels that it employs in over half of its energy production. [39] One way around this problem is to transition away from these energy sources towards 'renewable' sources of energy.

A further pressing concern relating to energy security (and which also has a capacity to negatively impact affordability) pertains to energy importation. This includes the sourcing and transit of fossil fuel sources: the extent to which the EU imports fossil fuel constitutes one of the EU's major energy challenges. The European Commission has declared not only that the 'European energy market is the world's largest regional market (over 500 million consumers)', but that it is the world's 'largest energy importer.' [40] The EU presently imports some 50% of its oil and gas, meaning that it is reliant upon source nations to ensure that it receives vast amounts of its essential energy generation materials. This places the EU in an undesirable position of dependence, for it relies upon a given supply nation both to be amenable to conducting trade and to price fuels affordably and fairly over the course of that trade. Further, the EU also depends upon source nations to remain in a relatively indefinite

condition of socio-political stability so that necessary trade relationships can be maintained over time.

Dependency and net imports, 2012

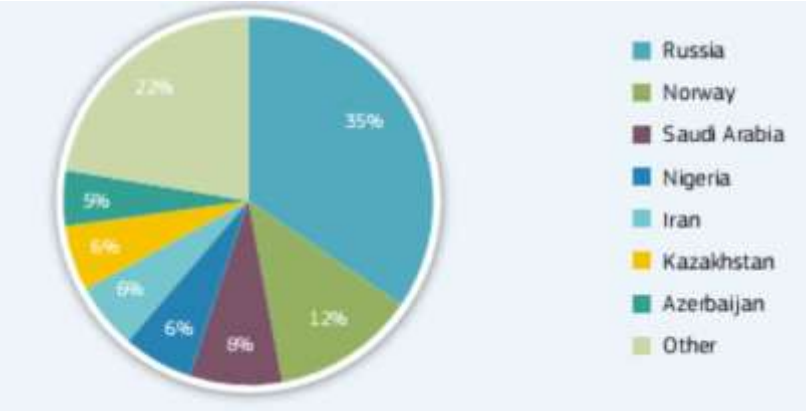
Dependency	All types of energy	Crude oil	Natural gas	Solid fuels	Net imports (million TOE)
MT	100.5%	100.8%			2
LU	97.4%	100.5%	99.7%	100.0%	4
CY	97.0%			100.0%	3
IE	84.8%	98.5%	95.6%	55.4%	12
IT	80.8%	90.1%	90.2%	96.7%	134
LT	80.3%	93.0%	100.1%	89.2%	6
PT	79.5%	100.9%	99.7%	103.3%	18
BE	74.0%	99.3%	98.6%	94.2%	46
ES	73.3%	96.7%	99.6%	76.5%	99
EL	66.6%	101.3%	100.3%	2.3%	20
AT	63.6%	91.5%	86.3%	102.6%	21
DE	61.1%	96.0%	85.7%	40.0%	197
SK	60.0%	89.7%	89.8%	89.7%	10
LV	56.4%	101.7%	113.8%	95.2%	3
HR	53.6%		37.1%	87.9%	4
EU28	53.4%	86.4%	65.8%	42.2%	923
HU	52.3%	80.8%	72.9%	36.8%	12
SI	51.6%	105.0%	99.8%	21.5%	4
FR	48.1%	97.9%	96.6%	95.1%	125
FI	45.4%	92.5%	100.0%	57.7%	16
UK	42.2%	36.3%	47.0%	69.5%	87
BG	36.1%	96.9%	83.3%	21.4%	7
NL	30.7%	96.7%	-74.5%	83.6%	29
PL	30.7%	94.7%	73.8%	-6.9%	30
SE	28.7%	95.4%	99.1%	78.2%	15
CZ	25.2%	95.3%	89.0%	-13.0%	11
RO	22.7%	51.4%	21.2%	16.6%	8
EE	17.1%	60.0%	100.0%	0.5%	1
DK	-3.4%	-34.8%	-54.0%	93.7%	-1

EU energy dependency rate and net imports by country, 2012 [41]

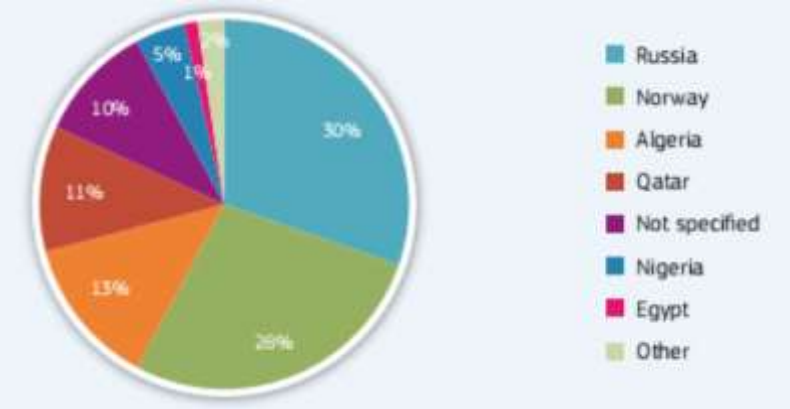
CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

Systems of transit also need to remain reliable in order to ensure that energy resources can reach their desired destination. Aspects of transit can prove to be particularly unpredictable, for energy materials will often pass through a variety of countries on route to their destination state, and the possibility therefore exists for the transit process to be interrupted or broken by various complications. [42] These realities highlight what the European Commission has described as a 'need for diversification of energy sources'. [43] Greater diversification takes some pressure off in instances where one avenue of energy supply may become constricted or suddenly closed off.

EU climate governance, then, is motivated in particular by several primary forces: one force relates to the EU's desire to redress problems posed by greenhouse gas emissions and associated anthropogenic climate change, and another set of forces relates to a desire to achieve greater energy security and affordability. These general concerns around *sustainability*, *security* and *equity* (accessibility, affordability) are often conceptually summarized as amounting to an 'energy trilemma'.



EU imports of oil by country of origin (Mt) [44]



CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

EU imports of natural gas by country of origin (PJ) [45]

3.3 BROADER DRIVERS: MULTI-LEVEL INFLUENCE OF THE INTERNATIONAL ARENA

EU drivers in this sphere have also been subject to profound international-level influence, which in turn has suffused 'downward' through the multilevel governance framework to the UK and other Member States. The international/supranational level interface as a law and governance driver determinant poses a slightly differing degree of analytical conceptual complexity in the context of multilevel governance theory than that engaged by the more purely 'internal' EU drivers treated above (climate change; issues around fuel and materials, sourcing, transit and cost) insofar as the international arena embodies a broader, complex governance vista in its own right. Although analysis of EU activity at the supranational-international level interface often involves the EU being conceptualised as a cumulative 'EU' composite that is acting alongside conventional nation states on the international stage, whereby it is construed frequently as one singular player on that stage (i.e., with the UK and other Member States embedded within it), multilevel governance theory asserts that this radically oversimplifies the form and nature of the EU. [46]

Liberal Intergovernmentalist and other traditional 'state-centric' approaches to analysis of the EU suggest that internal EU Member State political-legal activity in the sphere of climate and energy governance can be subjected to approximately the same sorts of analyses appropriate to wider/non-EU international activity between nation states. [47] However, and unlike Liberal Intergovernmentalism [48] and associated approaches, multilevel governance theory posits that these sorts of ideas cannot offer the most appropriate explanation of EU-specific action, interpreting the EU instead as a unique, novel entity. [49] As such, it is maintained that the EU as a cumulative entity - to the extent that such an entity can even be identified - and the EU Member States within that entity, do not operate in a context that is analogous to wider extant international-level interactions, processes and arrangements amongst states [50] ; thus, it follows in turn that interpretations in the spirit of multilevel governance theory do not presuppose that EU climate and energy governance will conform usefully to analytical approaches traditionally applied to non-EU international relations. In practice, therefore, it is unsurprising that multilevel governance theory does not interpret the 'supranational level'

as being in any way largely analogous to an 'international level'.

Instead, and as Fairbrass and Jordan imply, the framework distinguishes a distinct type of international level that can be conceptualized as existing 'above' the supranational level:

> the EU's environmental policies are typically the product of the competition and collaboration between state and non-state actors situated at the local, national, regional (i.e. European), *and* international levels. This complicated, contested, and evolving distribution of authority and competences is one of the most intriguing features of EU environmental governance. [51]

It is submitted that the paradigm embodied by multilevel governance theory seems more appropriate to analyses of the EU climate and energy context than traditional state-centric readings, due most particularly to the EU's unique composition. Thus, for instance, multilevel governance theorists have pointed out that the EU's circumstances imbue it with a particularly complex underlying governance framework that lies concealed within any superficial composite 'EU' identity that might be distinguished nominally, and that recognition of this circumstance must have analytical consequences:

> The argument put is that the EU neither resembles domestic polities nor international organizations, and therefore defies explanation from approaches applied either to politics within states or politics between states. [52]

These theoretical insights will be returned to towards the end of this section in order to draw lessons from the consideration of major international-supranational level developments to follow. Further, and reducing this line of thinking to its essentials, it is to be noted that the EU level's political-legal engagement with the wider international community at the international-supranational level interface can be usefully viewed as a two-tiered conversation wherein the EU agenda has both been shaped by, and has helped to shape, the development of international climate law. A multilevel governance approach asserts that the UK has been subject to these profound forces in turn, but from its largely embedded position within the EU.

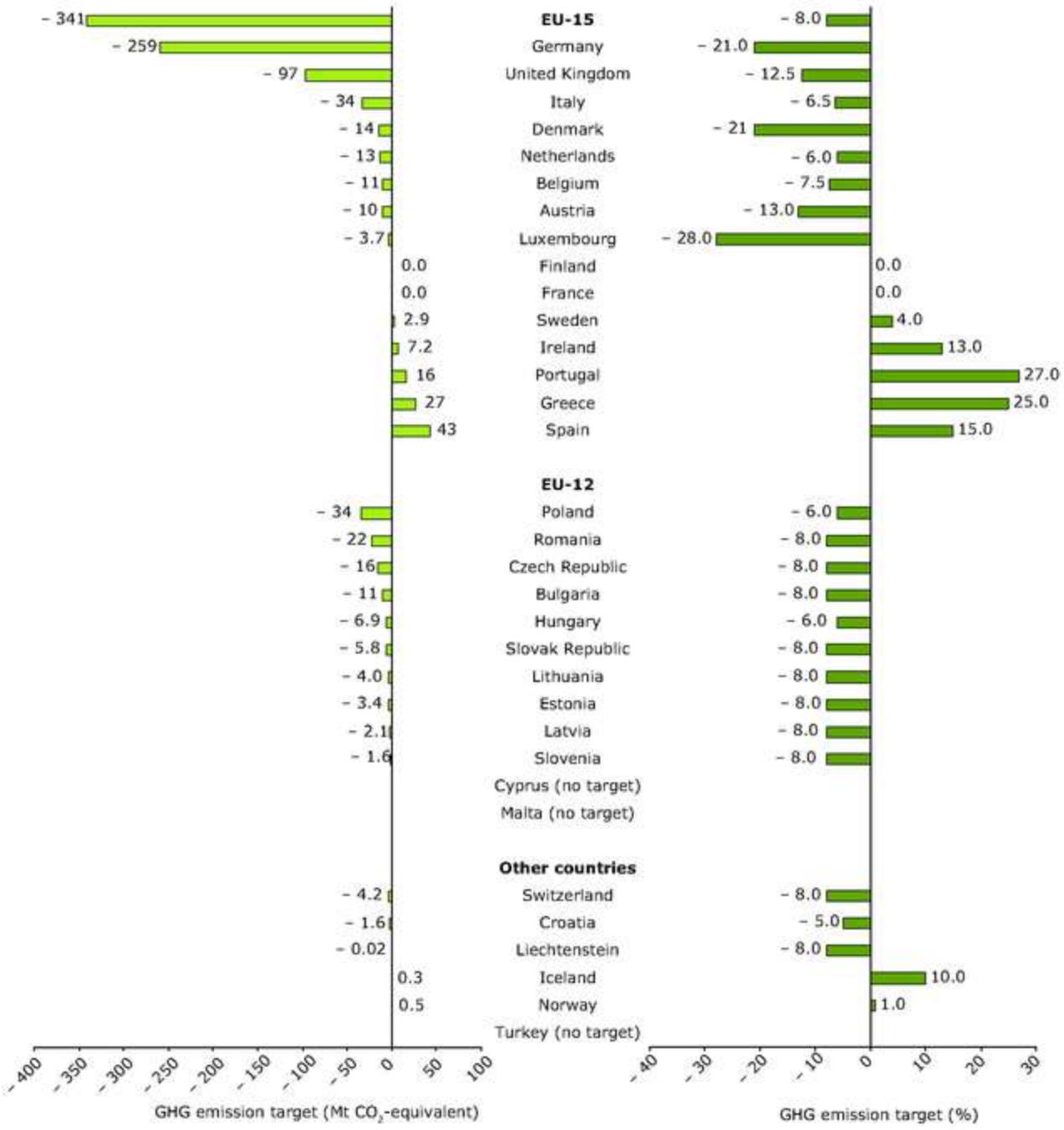
The first major international-level instrument designed to redress climate

change was the United Nations Framework Convention on Climate Change (UNFCCC), adopted by the UN in 1992. The UNFCCC crystallised in one legal framework an international desire to cooperate in combatting anthropogenic global warming, and Article 12 of the UNFCCC placed significant obligations upon the EU and its Member States to report on greenhouse gas reduction progress. In cohering common international intentions, the UNFCCC laid vital stepping-stones upon the path of international legislative cooperation; however, it is widely recognised that the UNFCCC was also troubled by several key weaknesses. In particular, its lack of concrete action plans, specifically delineated commitments and tangible reduction targets meant that it could not achieve a great deal in practice. [53]

In 1997 the Kyoto Protocol was set in place (in force February 2005). [54] This international agreement committed developed nations listed in the UNFCCC's Annex I to binding greenhouse gas reduction targets of 'at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.' [55] This valuable sense of practical progress was tempered, however, by the reluctance of certain nations to ratify the Protocol, which occurred despite the EU's intensive efforts to secure as many signatories as possible. Non-ratifying nations included the USA, China and India: with the exception of the EU itself, these nations largely constituted the key global greenhouse gas emitters. The absence of these countries therefore undermined the Protocol's important achievements severely. In 2002 the situation improved as both China and India signed up, although they did not receive binding reduction targets under the arrangement. The USA has remained as one of a small number of nations that has yet to ratify the Protocol.

Under Kyoto the EU committed to reduce its greenhouse gas emissions by 8% from 1990 levels over the period 2008 - 2012. There are presently 28 Member States in the EU, however this number has increased gradually over time and changes have been made to climate and energy policy in order to cater for the inclusion of new members, and to allow for differing circumstances across the diversity of the Member States. [56] The EU takes a 'burden sharing' approach to its reduction commitments [57] whereby Member States' contributions are checked and balanced against their historic emissions levels and their capacity to meet what is deemed to be a fair proportion of the reductions. The UK was bound to a 12.5% reduction over the 2008-2012 Kyoto period.

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >



Annual greenhouse gas emission targets in Europe under the Kyoto Protocol (2008-2012) relative to base-year emissions. [58]

The major international success embodied by the Kyoto Protocol was diluted somewhat by the understanding that its reduction targets were far

too low to mitigate the overall negative trajectory of global anthropogenic climate change. Further, it has been noted above that certain nations including the USA could not be persuaded to ratify the agreement. Nor did the Protocol map out detailed methods by which the international signatories were to proceed with the reductions drive after the closure of the initial 2008 - 2012 period. Indeed, the negotiation of the next compliance phase was dragged out over subsequent years in a belaboured and recalcitrant fashion. [59] Charnovitz has also pointed out that 'multilateral efforts to liberalize trade and to prevent global warming have proceeded largely on separate paths', arguing persuasively that marked progress is only likely to be made under a Kyoto-type framework when the imbalances between the spheres of trade and global warming prevention have been redressed. [60]

3.4 PRESENT AND FUTURE INTERNATIONAL ACTION

At the 2007 UN Climate Change Conference in Bali, Indonesia, the international community designed a 'Bali Road Map', [61] which was effectively a practical path intended to steer the UN towards further binding targets that, it was hoped, could be applied to nations at the UN's Copenhagen Conference 2009. [62] Ultimately agreement could not be reached at Copenhagen, and although a Copenhagen Accord was approved at the gathering, which expressly acknowledged a common desire to keep rising global temperatures to less than 2 degrees Celsius, [63] the nations could neither arrive at legally binding reduction targets nor set robust action plans in place expressing their way forward. Further conferences at Cancun and Durban did not remedy these shortcomings. [64] As EU-level representatives acting on the international stage on behalf of the EU had been a strong force in attempting to drive climate agreement forward at the international level in the wake of the initial Kyoto arrangements, the inability to reach agreement came as a significant frustration to senior EU diplomats.

In December 2012 in Doha, Qatar, the 'Doha Amendment to the Kyoto Protocol' was agreed by the Kyoto signatories. [65] Under the terms of this agreement the Kyoto parties set in place a second Kyoto commitment period, due to run from 1 January 2013 - 31 December 2020. For this second period an 'overall commitment' to emissions cuts for the industrialised nations was agreed at 18% below 1990 baseline levels. [66] The EU pledged a 20% reduction target based on 1990 levels for 2020, which simply made reference to an ambitious *20-20-20 programme*

that the EU had already put in place autonomously (see below). The 2013-2020 compliance period was initially construed as a loose guide that the signatories intended to firm up over time: as such it is not directly comparable to the more robust 2008-2012 compliance period (hence, for instance, the gaping timespan between 2013 and 2020).

In 2015 in Paris it was intended that the international community would further develop legally binding commitments to include robust nationally tailored reduction targets in the spirit of those delineated under the 2008-2012 agreements. After further significant delay due to an inability amongst the international community to agree on collective action, and with the EU positioning itself as a progressive Union endeavouring to drive the emissions reduction agreements forward, the Paris Agreement was cohered and agreed. [67] While the final product arguably has not lived up to expectations, the Agreement does obligate signatories to prevent dangerous and irreversible levels of climate change, namely approximately 2 degrees Celsius or more of warming above pre-industrial levels, and it is intended that the Agreement will come actively into force in 2020 so that the present international framework will continue to roll on at the point when the 2013-2020 Doha Amendment timespan concludes. It is also notable that the frequently recalcitrant USA has signed the Agreement (although American President Donald Trump has indicated that his administration will potentially reverse this in the near future), as have Japan, New Zealand and the Russian Federation, which did have binding commitments under the first Kyoto Protocol period but that had refused to adopt binding commitments for the second period.

It will be useful to return directly now to the theoretical points concerning multilevel governance that were raised above. Given the very particular form of interrelationship that multilevel governance analysis recognizes between the EU, with its dense internal structure, and the wider international arena, it becomes apparent that the international level has contributed significantly in both direct and indirect ways to the structuring of the EU's climate law regime. Subscription to the UNFCCC, the Kyoto Protocol, and so on, clearly embody 'direct' contributions to that process, but the degree of multi-level interconnection and vertical-hierarchical governance complexity ranging across and between the international and supranational levels suggests that numerous indirect / collateral / additional consequences are also manifest. Many of these latter sorts of (indirect) consequences will be galvanised as an immediate result of the 'direct' manifestations embodied by the UNFCC, etc. These sorts of broad

ripple-effects across the multi-tiered waters of governance may be subtle, complex, or indeed scarcely perceptible.

When viewed in the setting of multilevel governance theory, the developments addressed above serve to highlight the manner in which the EU plays a role as both a compound plurality of international actors - it is a collection of individualized Member States - and as an international actor in its own right, that is to say, the EU level is represented as a quasi-monolithic tier of governance that can participate in an important way alongside nation states at what can be conceptualized as the 'international level'. It is clear that the EU is a complex entity that is partially *shaping* international climate law and policy whilst it is also *being shaped* by its wider dealings with the international community and its attendant series of international-level agenda-setting relationships. It is likely that the impact of this plural two-way channel will continue to suffuse downward throughout the EU multilevel nexus in both direct/indirect and overt/subtle ways; thus, it is likely in turn to continue to exert a roughly parallel range of transparent and (to some extent) non-transparent influences upon the national UK decarbonisation experience. It follows, therefore, that when Brexit is completed, the UK will be beyond the direct purview of those influences. [68]

Multilevel governance theory suggests that the sheer scale and scope of the multilevel disentanglement process and its attendant outcomes and consequences for the UK as it exits the EU are far too intricate, complex and wide-ranging to calculate in any remotely comprehensive or totalizing way, including in the discrete, challenging area of climate and energy governance. [69] One can identify, highlight and consider consequences related to what have been characterized above as 'direct' impacts, but it is difficult to range far beyond these parameters with any concrete certainty. One thing that is clear from the analysis above is that the UK to a significant extent participates in the UNFCCC from a nested position within the EU, and as such disconnecting the UK level from the EU level could similarly disconnect the UK from UNFCCC activity; however, it is to be noted that the UK is party to the UNFCCC both as an EU Member State *and* as a party in its own right. It will therefore lose the augmented level of representation it receives through the EU, but will still have representation and direct association in its own right as soon as Brexit goes 'live'. Similarly, in the case of the relatively recent Paris Agreement, the UK has joined as an individual signatory in spite of its quasi-nested position within the EU multilevel governance arena. [70] In practical

terms, UK emissions reduction action is rolled into the EU's 'Intended Nationally Determined Contribution' (INDC) measures, [71] and so a consequence of Brexit is that the UK will be required to submit its own INDC calculations individually and directly (unless the EU and UK come to some special arrangement in this area).

Analysis from the Grantham Institute [72] has determined that 'the departure of the UK will make it more difficult for the European Union to achieve the target contained in its INDC, for two main reasons', as follows: 'First, the UK has been cutting its annual emissions of greenhouse gases at a faster rate than the average for the European Union'; 'Second, the UK is likely to have a significantly stronger-than-average national target' as part of the EU's 2030 emissions reduction drive. [73] On the last point, it did transpire that the UK received a robust target for 2030 (set at a 57% reduction target on 1990 levels). After some concern that Brexit would negate or dilute this reasonably substantial target, which, as clarified above, had largely filtered down the multilevels of governance to the UK via the EU level, the *Guardian* newspaper reported on Thursday 30 June 2016 that 'The UK has announced an ambitious new carbon target for the early 2030s, allaying fears that the climate goal would be a casualty of the EU referendum.' [74] In other words, UK Government took the decision to roll the 57% target into legally binding carbon budgeting levels at the national level under the terms of the CCA 2008. [75]

In general terms, multilevel governance analysis throws into relief aspects of the significant extent to which the EU is both partially shaping and being shaped by international climate law and policy, with the UK being impacted by obvious and subtle complex forces that suffuse downward from this plural two-way channel to the national level. When Brexit is completed, the UK will be beyond the immediate purview of these influences, and as such these circumstances might be a blessing or a curse: the UK will be freed up to act more robustly on the international stage in its own right, to enter unilaterally into various international agreements without requiring the moderating influence of the EU, [76] and so forth. However, the primary obligation to take up this mantle will fall much more *directly* to the UK, and it remains to be seen whether key national actors will convert the opportunities that will accrue to the UK as a more 'independent' state within the wider international field into something more broadly positive or negative.

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

4. EU CLIMATE LAW AND POLICY

As the EU was both being shaped by and was itself shaping the international political-legal governance vista that has been considered above, it was simultaneously developing its own internal climate and energy governance design. It has been seen that a prolonged inability to reach wide-ranging international agreement on ambitious emission reduction targets left the EU's comparatively progressive approach to climate and energy governance relatively frustrated on the international stage. Equivalent constraints did not exist within the EU's internal policy arena at the EU level of governance, and so the EU was here at greater liberty to press ahead with a more robust internal decarbonisation regime. Thus, while the 2007 Bali Road Map was under construction the EU was engaged in what was effectively a two-tiered approach to decarbonisation: on one hand, EU actors continued to push for reduction commitments at the international level, and on the other hand the EU's institutions did not wait for agreement to be reached but instead pressed on internally with developing a governance regime tailored to the EU's perceived needs and interests. These forces and their unfolding political-legal consequences have duly exerted a fundamental shaping influence on climate and energy law and governance in a pre-Brexit UK.

Successful energy decarbonisation pathways are predicated upon a particular series of assumptions, which, given the EU's present socio-economic context and speaking broadly, need to be adequately reflected in any current supranational decarbonisation regime if that regime is to be successful in practice. These features include enhanced energy efficiency measures and associated strategic reductions in end-use energy consumption, where a focus falls on driving down general energy demand levels. [77] They also include a transition away from finite energy sources toward renewable sources of energy. Renewables have the dual benefit of facilitating a reduction in emissions levels whilst sustainably replacing highly pollutant forms of energy generation at source. [78] A successful multilevel EU-UK decarbonisation transition, then, will require successful energy decarbonisation, and this in turn must be predicated upon a transition away from greenhouse gas-emitting fossil fuels. [79] The EU has endeavoured to directly reflect these sorts of understandings in a strategically designed 2020 climate and energy programme (the '*20-20-20 programme*'), and this framework is being developed in turn towards 2030 and beyond. Prior to considering this

programme directly, it will be useful to set it against the backdrop of the changing landscape of EU treaty law, which has facilitated the programme's creation, development and pervasive influence across the multilevel EU-UK climate and energy governance regime.

4.1 SUPRANATIONAL TREATY DEVELOPMENTS

The *20-20-20 programme* itself would not have been possible if certain key Treaty reforms that have lately occurred had not taken place, due to the fact that recent major energy-specific treaty revisions largely form the technical legal basis of the supranational institutions' facility to act in this area. It is well known that the EU's constitutional arrangements are founded upon two major treaties, the Treaty on European Union (TEU) and what was originally the Treaty establishing the European Community. Both treaties were amended by the Treaty of Lisbon, which entered into force on 1 December 2009, and as part of this reforming process the latter treaty was renamed the Treaty on the Functioning of the European Union (TFEU). [80] Lisbon attempted to contribute to the adjustment of the broadly unharmonised landscape of Member State energy policy so that a greater degree of energy coherence could be realised across the Union. Arriving in the wake of the UN's Copenhagen Conference, these reforms partially served to emphasise an EU-level refusal to be deterred by a perceived international failure to achieve significant progress on climate change. The Lisbon changes designated energy for the first time in the history of the EU as an area of '[s]hared competence between the Union and the Member States'. [81]

Lisbon also inserted the following into the section of the TFEU dealing with 'Economic Policy' [82] :

> Without prejudice to any other procedures provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy. [83]

Here the concern of energy security that has been discussed above is clearly manifest, and the revision to the law now casts the issue as an explicit EU-level problem, as opposed to a problem specifically nested at the level of governance moderated directly by the individual Member

States. These revisions also make it explicit that adequate energy supply underpins a healthy EU economy. The TFEU's Title XX, concerning 'Environment' (formerly Title XIX), also received the following insertion into its list of environmental objectives at Art.191:

> - promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change. [84]

This insertion clearly embeds the EU institutions' supranational commitment to climate change mitigation and adaptation as a Treaty-based legal imperative. It is notable that the new reference has cemented the EU's commitment to promoting effective climate governance at the 'international level'.

Most importantly, the Lisbon Treaty also embedded Title XXI in the TFEU. This Title deals expressly with Energy. Title XXI Art.194(1) states as follows:

> In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to:
>
> a) ensure the functioning of the energy market;
>
> b) ensure security of energy supply in the Union;
>
> c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and
>
> d) promote the interconnection of energy networks. [85]

In placing the EU energy sector within the 'context' of the 'establishment and functioning of the internal market', [86] and in prioritising the 'functioning of the energy market', [87] one witnesses EU treaty law's partial supranational-level subsumation of key aspects of the energy sector ('energy market') within the wider EU economy ('internal market'). The textual approach to energy in the law here suggests that the EU institutions recognize an inextricable connection between energy security and supranational economic wellbeing. It also cements the

general objectives of the *20-20-20 programme* (see further below) [88] and asserts that a healthy EU energy sector must no longer consist of a disparate Member State patchwork, but rather must transition towards the 'interconnection of… networks'. [89]

The EU's efforts to cohere its internal energy market are an essential element of its current pan-EU Member State market integration strategy. A central strategy objective is predicated upon the facilitation of cross-border Member State electricity exchange, and it is hoped that gas and electricity will flow reasonably freely and fluidly within the EU by the time that the 2020 milestone date has arrived. This agenda is being driven by the 'Third Energy Package', expressed most prominently in EU law by the Electricity Directive [90] and the Natural Gas Directive, [91] and further supported by a series of key Regulations. [92] All these elements are key components of what the EU describes as its overall intention to deliver an EU 'Energy Union', where energy can flow freely, securely, sustainably and affordably across the Member States. [93]

These are initiatives led chiefly at the EU level of governance, and they embody developments that are substantial enough to impact significantly the behavior and relationships of key public and private actors ranging vertically and horizontally across the EU-UK governance levels, while also impacting radically the extensive multilevel energy policy networks that underpin governance in this area. Although the totalizing impacts of Brexit in this setting remain unclear, [94] a multilevel governance approach to analysis forces the conclusion that, at the very least, Brexit will serve to place the UK level beyond the immediate purview of both a range of significant EU-level capacities for legislative action in the sphere of energy (and indeed the laws that flow from those capacities), and a general supranational policy trajectory (towards greater energy interconnection). Further, it also suggests that this will occur in a manner that could serve to hinder any post-Brexit drive on the part of the UK to significantly augment energy co-operation and general energy interconnection with immediate neighbours. This is the case insofar as most UK neighbours are EU Member States and as such they themselves are subject to the range of primary governance drivers discussed above, which, it has been seen, are partially received by EU Member States from 'above' at the supranational level of governance. [95]

However, analysis of the law in this area also reveals that these insights must be qualified significantly. Section 2 of Article 194 TFEU states that,

in adopting the measures necessary to achieve the objectives in TFEU Art.194(1), these measures must not:

> affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply[.] [96]

In clarifying that Member States retain the freedom to 'exploit' their own energy resources largely on their own terms here, EU Treaty law has imbued UK Government (and the other Member State governments) with significant room to manoeuvre. It has also left the UK governance level free to 'structure' its energy supply as it sees fit, and granted it the 'choice' between different energy sources. [97] This type of section exemplifies the fact that there are significant checks on aspects of supranational-level energy control, orienting much power and authority in the direction of the national governance level. This is scarcely surprising given the state-centric approach that UK Government and other individual Member State governments have traditionally adopted to energy governance, offering up elements of internal energy competence to the supranational institutions with a notable sense of reluctance. Thus, Lisbon's insertion of Article 192(2)(c) into the TFEU protectively states that 'measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply' can only be enacted by the Council in instances where the Council acts unanimously. [98]

Nonetheless, taken cumulatively, these treaty law developments illustrate how the UK's energy sector has been progressively woven into a wider, more broadly interconnected transnational environment both 'legally' (in terms of shared competence under treaty law) and 'actually' (in terms of practical interconnection). Multilevel governance theory suggests that key UK-level governance actors and indeed major energy-specific policy networks will be required to carefully manage the implications of these aspects of UK-EU multilevel relations as the UK disentangles itself from the EU and moves towards a post-Brexit world. This complicated process must be conducted carefully: where the UK level snaps itself off from the EU level and its attendant frameworks carelessly or recklessly, gaping policy gaps must open up in relation to the issues raised above at the UK level, and associated legal gaps and inconsistencies must also appear. [99] Further, if due care is not taken the UK will in effect be thrust from the relative stability of a condition of energy systems integration (within the EU) into a condition of comparative energy systems dis-integration (as

a consequence of falling suddenly outside the purview of the EU's unfolding energy market and governance integration trajectory).

4.2 THE 20-20-20 CLIMATE AND ENERGY PACKAGE

At the period in which the international community was struggling to cohere the 2007 Bali Road Map, the EU released its *20-20-20 programme*. Here the European Council announced that the EU intended to make a political commitment to: the reduction of its greenhouse gas emission levels by 20% below a 1990 measurement baseline; the improvement of its efficiency performance by 20%; and the increase of renewable energy levels in its energy mix by 20%. [100] These targets were to be achieved by the year 2020. Given the nature of the Brexit process, it seems likely at the time of writing that the UK will formally exit the EU in or around late March 2019 (due to the two-year Article 50 withdrawal timespan discussed above), meaning that the UK appears to be on a course that renders it directly subject to the EU *20-20-20* framework up to a point that is relatively close to the stage at which the final targets apply (i.e., the commencement of 2020). [101]

EU legislation appeared in 2009 to translate the objectives into binding legal obligations. The supranational legislative framework has been built on a revised Emissions Trading Scheme Directive designed to support the stated 2020 goals. [102] This requires carbon emissions to be cut from regulated industry by 21% from a 2005 baseline level by 2020, and areas outside of the scheme's remit (transport, housing, etc.) are caught by an Effort Sharing Decision that requires the UK to reduce emissions by 16% from 2005 baselines by 2020. [103] A Carbon Capture and Storage Directive was also issued in order to facilitate investment in Carbon Capture and Storage (CCS) technology and its deployment. [104] The law on renewables was established by the Renewables Directive 2009/28/EC, [105] with an obligation to achieve a total EU renewable energy share of 20% by 2020 asserted at Article 3. [106] The Directive further asserts that this is to be done through a varied set of target percentages tailored to each individual EU state. [107] In the UK's case, the Directive has committed the state to lifting its renewables share from 1.3% (measured at a 2005 baseline) to 15% by 2020. [108]

While these targets are acting on the UK at present, EU-level targets will cease to apply once Brexit is fulfilled. It is probable (though not absolutely certain) that the UK will cement these requirements in national law at the

point in which it leaves the EU. [109] Assuming that this does take place, it is notable that the force of primary requirements will then emanate from the national level and as such the legal circumstances will be much different: for example, the EU-level European Commission will not act in a direct oversight role, the UK cannot be brought before the CJEU for breach of legal requirements, and so on. [110] Further, requirements can be conventionally repealed by UK Parliament. Indeed, after being 'grandfathered' into UK law under the terms of the European Union (Withdrawal) Bill 2017-2019, EU law will then be under a prolonged condition of review, with a view to much EU-derived law being pruned out/repealed/altered by UK Government under proposed delegated powers [111] and by UK Parliament through conventional parliamentary legislation.

The *20-20-20 programme* paints the EU institutions in an inspirational light on the international stage, however it also brings with it a pressure to deliver on the 2020 targets. Multilevel governance analysis highlights that this pressure continues to be borne at the time of writing by a pre-Brexit UK (and the other Member States) from its nested national-level positioning below the supranational level of governance, and most particularly by the energy sector. Within the UK, this sustained process of horizontal and vertical multilevel pressure has driven progressive decarbonisation; in exiting the EU, this supranational pressure will cease to operate directly on the UK level, and thus there is a significant possibility that this could serve to negatively impact decarbonisation law and practice within the state.

4.3 2020: CHALLENGES

Neither the international community as a whole nor the EU in isolation are doing nearly enough to suppress greenhouse gas emissions to an extent that will allow humanity to adequately contain the damaging effects of anthropogenic climate change that are anticipated by scientists to intensify over the remainder of this century. [112] Nonetheless, where the EU level's climate and energy decarbonisation framework is situated in the context of wider global developments, it is clear that it is relatively progressive. [113] It is also notable, however, that the 2020 legislative framework has displayed arguable design flaws: in terms of 'hard law', the supranational legislation enacted to support the 2020 vision deals directly and in a fairly sophisticated way with renewables (Renewables Directive), [114] emissions trading (ETS Directive), [115] non-ETS sectors (Effort

Sharing Decision), [116] and CCS (CCS Directive) [117] ; however an equivalent legal instrument was not produced to target the vital area of energy efficiency in a comparably coherent manner after these other aspects of the *20-20-20 programme* had been drawn together in the legislation.

This ultimately occurred with the arrival in 2012 of Directive 2012/27/EU, the 'Energy Efficiency Directive'. [118] Prior to this, binding law at the supranational level continued to rely on instruments including the Energy Performance of Buildings Directive, [119] a follow-up buildings Directive enacted in 2010, [120] the 2006 Energy End-Use Efficiency and Energy Services Directive, [121] and certain other legal measures. [122] It soon became clear that the initial approach adopted at the supranational level would not do, a European Commission *Impact Assessment* determining in 2011 that:

> the EU is not on track to fully realise… energy savings. Whilst the latest business-as-usual scenario shows a break in the trend towards ever increasing energy demand, the reduction in the consumption will be only about 9% in 2020. Therefore, if the EU does not double the efforts, it will not reach its 20% [energy efficiency] target[.] [123]

The 2012 Energy Efficiency Directive has been crafted as a means of contributing to the shoring up of the significant gap that has existed within the *20-20-20* legislative framework in this area. [124] The Directive embodied a positive step in a legislative sense, and it has served to help the EU perform more strongly [125] ; energy efficiency's notoriously nebulous and low-visibility nature can render it a particularly difficult area to treat effectively. As the EU-level has undergone a steady evolution of its climate law and policy, with the major supranational governance institutions engaging in the outworking of hard problems and complications over the course of the process, the UK, as one of the EU's Member States, has benefitted from the improvements that have accrued and been applied 'downward' to the national level over the course of this development. Thus, in exiting the EU, multilevel governance analysis highlights that the UK will be compelled to address its own emergent problems in a more individual and isolated setting, which could pose enhanced challenges in its own right.

A further example of significant criticism pertains to the 2020 Renewables

Directive targets. [126] The overall 20% target figure was widely criticised as being too low over the course of the development of the legislation. A drive to raise the target appeared to be in the ascendancy during the negotiation phase, however certain states resisted the momentum. Poland in particular was recalcitrant across much of the negotiating process, with Germany and Italy amongst other states also exhibiting prominent reserve. [127] As a consequence, by the end of the process the renewables targets were significantly lower than they might have been. Brexit means that key governance actors at the UK level will no longer be subject to these sorts of EU-specific breaks on progressive climate policy and associated mitigating influences, such that the UK will enjoy opportunities to forge ahead in progressive ways with less active constraint.

However, signals on the ground from UK Government at the present time suggest that the UK may not be ready or willing to take such opportunities. For example, it is notable that UK Government suddenly abolished its CCS Competition - where £1 billion had been ring-fenced to support CCS development in the UK - 6 months before the competition fund was due to be awarded, and in breach of the governing Conservative party's manifesto. [128] Not long after this, UK Prime Minister Theresa May took over office from former Prime Minister David Cameron. Former Scottish Climate Change Minister Stewart Stevenson has pointed out that 'one of the first major policy actions of the new UK Prime Minister has been to abolish her climate change department', that is, the Department of Energy and Climate Change, which was promptly closed by her new administration. [129] Shortly prior to Prime Minister May's appointment to office (July 2016), her party applied significant cuts to financial supports for wind and solar renewable technologies, which her administration has since sustained and driven forward. [130] These sorts of developments suggest that the UK level may be restrained by UK Government and associated powerful national governance actors from realising potentially very fulsome opportunities for enhanced or more radical progressive action in the sphere of climate and energy governance, which will arise as a consequence of the wedge that Brexit will drive between EU-level and UK-level governance regimes.

CONCLUSIONS

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

A multilevel governance approach to analysis facilitates a clearer understanding of the interaction between the EU and UK with reference to climate and energy law and policy by exposing and clarifying the manner in which the EU's *20-20-20 programme* and its associated evolution towards 2030 and onwards has permitted supranational climate and energy governance to drive EU-UK/Member State relations in this area to a previously unknown historical moment. In effect, the EU-level longterm, legally binding supranational decarbonisation framework compels the UK and other Member States to operate an extensive decarbonisation agenda that divests the national governments and associated key national-level actors of a significant degree of energy autonomy. These features, working in conjunction with the EU's 'Energy Union' drive, are unprecedented in an evolving EU hitherto dominated by a broad spectrum of national governments that have collectively guarded their autonomous energy controls at the national level of governance in a relatively unyielding manner. In actively drawing practical elements of Member State energy competence 'upward' in the multilevel governance nexus from the national level to the supranational level in the aftermath of the Lisbon Treaty's broader EU/Member State energy competence adjustments, the 2020 framework has seen to it that UK energy decarbonisation and associated governance is no longer a primarily 'national-level' affair, but also a substantively supranational matter.

A more 'state-centric' interpretation of these multilevel EU-UK circumstances could quite reasonably have formed a point of departure where this sort of inquiry was being conducted in the lead up to the enactment of the UK's CCA 2008, or even at the time of its commencement, that is, at a time prior to certain key reforms to EU treaty law (2009), the articulation of the *20-20-20 programme's* legal framework (also 2009), and so on. However, analysis of the developments that have been thrown into relief above through the lens of multilevel governance theory clarifies that decarbonisation of energy within Member States is now partially and significantly driven by supranational forces, which over the period 2007-2009 have supplanted key aspects of the national-level controls that had hitherto imbued UK Government with a robust facility to control this matter internally. As such, where the UK absents itself from the EU it must also disentangle its climate and energy regime from a complex set of shared arrangements; and further, it needs to ensure that suitable national level political-legal action is undertaken in order to fill aspects of a resultant governance void. While it appears that part of this task will be attended to by UK Government's European Union

(Withdrawal) Bill 2017-2019, there are also broader challenges in this line. For example, in terms of the UK's options post-Brexit, it has been highlighted above that Brexit will potentially thrust the UK from a condition of energy systems integration inside of the EU to a condition of comparative energy systems dis-integration, in that the UK will find itself outside of the EU's unfolding energy market integration programme and associated processes.

In-depth multilevel governance analysis of the EU provided by scholars including Bulmer, [131] Hooghe, [132] Jachtenfuchs, [133] Marks [134] and Blank [135] has long since helped to expose various qualities inherent in the EU's governance arrangements that are collectively unique to the EU itself. Crucially, it is clear that the supranational level exhibits an ability to imbue its key supranational actors with a degree of autonomy that extends over time and that is not necessarily contingent upon Member State permissiveness; this is due in no small part to an express degree of interaction between supranational institutional design and long-term supranational legal frameworks. A range of EU integration analysts have reasoned convincingly that institutional choices made in the past have the capacity to become substantially 'locked in' so that they continue to act upon policy outcomes over time. [136] Path dependence is typically augmented by the manner in which actors within institutional structures tend to lean towards perpetuating policy choices that harmonise with the policy trajectory of the institution in which they are enmeshed. [137] This aspect of institutional path dependence can feed directly into wider national processes, as emphasised by Levi:

> once a country or region has started down a path, the costs of reversal are very high. There will be other choice points, but the entrenchments of certain institutional arrangements obstruct easy reversal of the initial choice. [138]

Drawing together the EU/UK analysis undertaken in this study in light of multilevel governance ideas, it is apparent that an extensive, long term and (crucially) legally binding climate and energy framework has cemented vital EU objectives in place at the supranational level, even though the practical work towards those objectives occurs primarily at national levels. [139] Where a Member State like the UK is considered in the context of its embedded position within the EU, although it is far from impossible for the UK and the other Member States to dismantle this framework, any substantial demolition would be an enormous task.

Certainly, the UK could not undo it by itself; it would require the wide-ranging support of EU Member States to affect the change. However, in withdrawing from the EU the UK is no longer subject to such constraints. In a post-Brexit world UK Government and national Parliament have much more freedom to retain only partial aspects of the supranational framework after it has been grandfathered into UK law under the intended European Union (Withdrawal) Bill process, [140] perhaps cherry-picking elements that seem most suitable to government intentions. Even if the fulsome climate and energy framework is transposed and retained as definitively as possible [141] over time in some nationally equivalent form (which is highly unlikely), it is more readily susceptible to repeal by national Parliament at *some* point nonetheless, and the 'locked in' and path dependent features identified above can no longer apply to an equivalent degree.

These Brexit developments clearly set the UK's decarbonisation regime on shakier foundations: in absenting itself from the EU, then, the very fabric of the UK's national governance framework in this highly important area is profoundly threatened. It is also clear, however, that the *20-20-20 programme* is not without its problems, as where renewables targets might have been more robust, energy efficiency might have been addressed in the legislation more effectively and coherently, etc. Whereas the framework's beneficial decarbonisation drivers have been transmitted 'downward' in the multilevel governance nexus to the UK level, so too have its problematic features. Here then is one clear benefit accruing to the UK as a consequence of Brexit, insofar as the UK can now divorce itself from these sorts of problematic features; however, substantial signals from UK Government that this potential gain will be converted into progressive political-legal action may be lacking. [142] In going forward, a post-Brexit UK, at least in the area of climate and energy governance, will be in no small part what the UK itself makes of it.

'*In the middle of difficulty lies opportunity*'

Albert Einstein

* Dr Thomas L Muinzer is a Lecturer in Environmental Law and Public Law at Stirling Law School, University of Stirling, Scotland. Email: thomas.muinzer@stir.ac.uk The author thanks Professor Sharon Turner, Professor Geraint Ellis, Anna-Marie McAlinden, and Professor Gordon

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

Anthony for comment on this work. Thanks are also extended to the reviewers at the EJoCLI. All views are those of the author's alone.

[1] Provision for this referendum was made by the European Union Referendum Act 2015, which received Royal Assent on 17 December 2015.

[2] *R (on the application of Miller and Dos Santos) v Secretary of State for Exiting the European Union* [2017] UKSC 5.

[3] European Union (Notification of Withdrawal) Act 2017 c.9.

[4] N. Pincott, K. Emmett, L. B. Jones 'Brexit: The Potential Impact on the UK's Offshore Wind Industry', *LexisPSL* legal database (published online) 28/11/2016, p.2.

[5] See further the overview of this legislation in the UK Government document *Legislating for the United Kingdom's Withdrawal from the European Union* Cm 9446 (Department for Exiting the European Union, March 2017).

[6] See further *ibid*, at Chapter 3, entitled 'Delegated Powers in the Great Repeal Bill' (pp.19-25).

[7] See for example Reid's summary of the transitional problems facing the UK in the sphere of environmental law: 'Brexit and the Future of UK Environmental Law', *Journal of Energy and Natural Resources Law* Vol 34(4) (2016), 407 - 415. On broader legal complexities, including whether the UK might remain part of the European Economic Area, see D.S. Tynes and E.L. Haugsdal 'In, Out or In-Between? The UK as a Contracting Party to the Agreement on the European Economic Area', *Environmental Law Review* (2016) 41(5) 753 - 765.

[8] See further below.

[9] As occurs in the case of Liberal Intergovernmentalism; see below.

[10] See further *The UK Low Carbon Transition Plan: National Strategy for Climate and Energy* (UK: HM Government, 2009); *The Carbon Plan: Delivering our Low Carbon Future* (HM Government: UK, 2011).

[11] 'Energy' generation is taken in this paper to refer to the generation of electricity and heat. The energy sector is the single largest source of greenhouse gas emissions in the UK itself, the EU more generally, and the world as a whole.

[12] CCA 2008, s.5(1)(a).

[13] *Ibid*. s.1(1).

[14] *Ibid.* Part 2, 'The Committee on Climate Change'.

[15] *Ibid.* Part 3, 'Trading Schemes'.

[16] *Ibid.* s.24(1). See also *Ibid*, s.92.

[17] T.L. Muinzer, 'Does the Climate Change Act 2008 Adequately Account for the UK's Devolved Jurisdictions?' (2016) *European Energy and Environmental Law Review* 25(3) 87-100, 87.

[18] See below, 'EU Climate Law and Policy'.

[19] See the comprehensive international statistics maintained by the International Energy Agency:
< http://www.iea.org/statistics/>

[20] European Commission, COM (2010) 639 final SEC 1346: 'Introduction' (although to reach an '80%' figure the Commission is clearly drawing the definition of energy emissions widely here).

[21] *Ibid*. At the present period some 20% of the EU's 2014-2020 budget has been targeted at climate-specific problems, see: European Commission, 'LIFE and Climate Change Mitigation' (Luxembourg: EU Publications Office, 2015), 1.

[22] See further the discussion of multilevel governance analysis at section 3.1, 'Climate Law in a Multilevel UK', pp.90-91 in T.L. Muinzer, *supra* n.17.

[23] European Environment Agency, 'EEA Greenhouse Gas - Data Viewer' (Europa Website):

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

<http://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer> accessed 18 September 2017.

[24] The term 'compatible' is borrowed from R. Rhodes' recognition of the connection between 'differentiated polity' insights and multilevel governance theory; see further p.70 of 'Policy Networks and Policy-making in the European Union', pp.57-73, in R. Rhodes *Network Governance and the Differentiated Polity: Selected Essays, Volume 1* (Oxford: Oxford University Press, 2017).

[25] The concept of the 'differentiated polity' is discussed in D. Marsh, 'The New Orthodoxy: The Differentiated Polity Model' (2011) 89 (1) Public Administration 32. See generally R. Rhodes, *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability* (Open University Press 1997), and Rhodes' *Network Governance and the Differentiated Polity* (2017) cited at *ibid.*

[26] Drawing on J. Peterson, 'Policy Networks', in A.Wiener and T.Diez (eds), *European Integration Theory* (2nd edn) (Oxford: Oxford University Press, 2009), 105-124, at 106.

[27] J. Peterson, 'Policy Networks', in A. Wiener and T. Diez (eds.), *European Integration Theory* (Oxford University Press 2004), 126.

[28] These include international-level drivers, which are discussed below.

[29] The IPCC has issued a stream of major reports on climate change. In its Fifth Assessment Report, it has emphasised that:

> Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system...It is *extremely likely* that human influence has been the dominant cause of the observed warming [of the atmosphere and the planet] since the mid-20th century.

IPCC, 'Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report' (Cambridge University Press, 2014), at pages 15 and 17 respectively (emphasis appears in original).

[30] See T.L. Muinzer, 'Observations on Ireland's approach to Climate Law', 2014 (1) (February) *Cork Online Law Review* 1.

[31] Lord Krebs, scientist and former member of the UK's Committee on Climate Change, has pointed out that '[a]round 97% of climate scientists believe global warming is principally driven by human activity'; Lord Krebs, 'Scientists must Challenge poor Media Reporting on Climate Change', *The Conversation* (May 3, 2016): <http://theconversation.com/lord-krebs-scientists-must-challenge-poor-media-reporting-on-climate-change-58621> accessed 18 September 2017.

[32] European Commission, Green Paper SEC (2006) 317 / COM (2006) 105 final at 4.

[33] M. Lynas, *Six Degrees: Our Future on a Hotter Planet* (London: Harper, 2008).

[34] D. Chivers, *The No-Nonsense Guide to Climate Change* (UK: New Internationalist, 2010), 'How Bad could it Get?' 46-55.

[35] A. Barrie Pittock, *Climate Change: Turning up the Heat* (Earthscan 2007); see in particular 'Uncertainty is Inevitable, but Risk is Certain', pp.64-83.

[36] See for example the European Commission's COM (2009) 147 and COM (2013) 216 for discussion of these problems.

[37] As exemplified by official publications like the European Commission's 'Our Planet, Our Future: Fighting Climate Change Together' (Luxembourg: EU, 2015).

[38] Quoting the 'Fossil Fuels' statement at the EU's 'Eurostat' website, which provides maintained EU-specific statistics: <http://ec.europa.eu/eurostat/web/environmental-data-centre-on-natural-resources/natural-resources/energy-resources/fossil-fuels > accessed 18 September 2017.

[39] It is to be noted that the rise of shale gas exploitation / 'fracking' has taken some pressure off of long-term reliance on the oil and coal sectors. Fracking, however, is a socially controversial method of energy

exploitation, and adequate emissions reductions necessary for a stable climate cannot hope to be achieved where fracking is being increased at the significant expense of low carbon energy sources.

[40] European Commission, *supra* n.20, 17.

[41] Source: 'EU energy dependency rate and net imports, 2012'. Published on June 19, 2014 in 'Energy supply in the EU28', European Parliamentary Research Service. Available at: <http://www.europarl.europa.eu/EPRS/140816REV2-Energy-supply-in-the-EU28.pdf> accessed 18 September 2017.

[42] Russia's annexation of the Ukrainian region of Crimea (March 2014) has provided a notable example of this. Amid the turmoil surrounding the annexation, Russia cut off gas supplies to Ukraine in June 2014 based on the claim that Ukraine had failed to settle its debts. Natural gas supply lines running through Ukraine into the EU were impacted as a consequence. See further 'Europe faces Gas Shortage as Russia cuts Ukraine Supply after Talks Fail', *The Telegraph* (newspaper), London, 16 June 2014.

[43] European Commission (Green Paper) COM (2007) 354 final, 15.

[44] Source: Milesecure 2050 - D1.3: Report on main trends in European energy policies/Multidimensional Impact of the Low-carbon European Strategy on Energy Security, and Socio-Economic Dimension up to 2050 perspective (31.12.2013) 22: <http://www.milesecure2050.eu/en/public-deliverables> accessed 18 September 2017.

[45] *Ibid*.

[46] Thus, when multilevel governance theory was in its genesis in the early 1990s, Marks influentially stressed that EU governance 'can be viewed as the leading edge of a system of multilevel governance… Instead of a centripetal process where decision making is progressively centralized in Community institutions,… we see a centrifugal process in which decision making is spun away from member states in two directions: up to supranational institutions, and down to diverse units of sub-national government; instead of the unambiguous allocation of decision making responsibility between national and

supranational governments, we see the institutionalization of contested spheres of influence across several tiers of government.' G. Marks, 'Structural Policy and Multilevel Governance in the EC' in A. W. Cafruny and G. G. Rosenthal, *The State of the European Community Volume 2* (Lynne Rienner 1993), 402. This complex multilayered form underlies the composite 'EU' construct that is frequently construed as acting in a cumulative uniform way at the international level.

[47] The 'state' has constituted arguably the most prominent site of major theory-building and governance analysis in Western political science. See further J.S. Dryzek and P. Dunleavy, *Theories of the Democratic State* (Palgrave Macmillan 2009); see also the classic text P. Dunleavy and B. O' Leary, *Theories of the State: The Politics of Liberal Democracy* (Macmillan 1987).

[48] The founding of this classic 'state-centric' interpretive frame employed frequently in analyzing EU integration is normally attributed to A. Moravcsik, see further *The Choice for Europe: Social Purpose and State Power from Messina to Maastricht* (Cornell University Press 1998). As Moravcsik and Schimmelfennig note, 'LI [that is, Liberal Intergovernmentalism] simply acknowledges a blunt empirical fact about contemporary institutions like the EU: member states are "masters of the treaty" and continue to enjoy pre-eminent decision-making power and political legitimacy.' A. Moravcsik and F. Schimmelfennig, 'Liberal Intergovernmentalism', in A. Wiener and T. Diez, *European Integration Theory* (Oxford University Press 2009) 67-87, 68.

[49] In the field of EU integration theory, the initiation of 'multilevel governance' is commonly traced to a paper published in 1992 by G. Marks; 'Structural Policy in the European Community' in A. B. Sbragia (ed.), *Europolitics: Institutions and Policymaking in the 'New ' European Community* (The Brookings Institute 1992). For a detailed discussion of the theory in the context of constitutional concerns, see W.Vandenbruwaene, 'Multi-Level Governance through a Constitutional Prism' (2014) 2 Maastricht Journal of European and Comparative Law 229.

[50] On multilevel governance and the treatment of 'state' constructs, see further A. H. Schakel, L. Hooghe, G. Marks 'Multilevel Governance and the State', 269-285 in S. Leibfried, E. Huber, M. Lange, J.D. Levy, F. Nullmeir, and J. D. Stephens (eds.), *The Oxford Handbook of*

Transformations of the State (Oxford University Press: Oxford, 2015).

[51] J. Fairbrass and A. Jordan, 'Multi-Level Governance and Environmental Policy' in I. Bache and M.Flinders, *Multi-level Governance* (Oxford University Press 2004) 148 (emphasis added).

[52] Bache and Flinders, *ibid*, 1.

[53] For a useful discussion, see J. von Stein, 'The International Law and Politics of Climate Change: Ratification of the United Nations Framework Convention and the Kyoto Protocol' (2008) 52 (2) Journal of Conflict Resolution 243.

[54] Kyoto Protocol to the United Nations Framework Convention on Climate Change.

[55] *Ibid*. Article 3(1).

[56] At the time that the Protocol was ratified the EU was comprised of 15 Member States. These original 15 Members, who each received binding targets, became known as the 'EU-15.' The UK was one of these Member States.

[57] As facilitated by, *inter alia*, Kyoto Protocol, Article 4. See further M. Grubb, 'The Economics of the Kyoto Protocol' (2003) 4 (3) World Economics 143.

[58] European Environment Agency, Data and Maps, Annual greenhouse gas emission targets in Europe under the KP (2008-2012) relative to base-year emissions accessed at: <www.eea.europa.eu/data-and-maps/figures/greenhouse-gas-emission-targets-in-europe-under-the-kyoto-protocol-200820132012-relative-to-baseyear-emissions-2> accessed 18 September 2017.

[59] Though note the discussion of the 'Doha Amendment to the Kyoto Protocol', below.

[60] S. Charnovitz, 'Trade and Climate: Potential Conflicts and Synergies' in J. Aldy, J. Ashton and others, *Beyond Kyoto: Advancing the International Effort against Climate Change* (Pew Center on Global Climate Change 2003). Charnovitz made this point in 2003, and it

continues to hold some relevance at the present moment.

[61] The Bali Roadmap is in fact a cohort of several decisions and plans. Prominent amongst these is the Bali Action Plan, Decision 1/CP.13.

[62] The 15th Session of the Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change.

[63] The Copenhagen Accord of 18 December 2009, Decision -/CP.15 (United Nations, 2009), Article 1.

[64] Although it was agreed at Durban that a new and comprehensive legally binding agreement was to be drawn up by 2015.

[65] Kyoto Protocol (Amendment) Decision 1/CMP.8.

[66] Amending Kyoto Protocol Article 3.

[67] Adoption of the Paris Agreement, FCCC/CP/2015/L.9/Rev.1. On the EU's path forward in the wake of the Paris developments, see European Commission COM(2016) 110 final.

[68] Of course, this is not to suggest by any means that EU influence will fall away altogether, and not least if the UK and the EU negotiate a close trading arrangement over the course of the exiting process.

[69] Multilevel governance analysis suggests that this is a stand-alone problem in its own right, however uncertainties in this area can only be further increased by the Brexit UK-EU negotiation process itself, where the final agreements and arrangements that will be arrived at remain unclear (at the time of writing).

[70] See Lord Bourne of Aberystwyth, 'The Paris Agreement proves that the Transition to a Climate-Neutral and Climate-Resilient World is Happening', published speech transcript to the UN, delivered 22 April 2016, published 25 April 2016 (UK: Foreign & Commonwealth Office, 2016).

[71] *Submission by Latvia and the European Commission on Behalf of the European Union and its Member States* EU2015.LV (EU: Riga, 2015).

[72] B. Ward, 'How will Brexit affect Climate Change Policy?' *News& Commentaries* (30 June 2016), Grantham Research Institute on Climate Change and the Environment. Available here: <http://www.lse.ac.uk/GranthamInstitute/news/how-will-brexit-affect-climate-change-policy/ > Accessed 18 September 2017.

[73] *Ibid.*

[74] A. Vaughan, 'UK sets Ambitious new 2030s Carbon Target', *The Guardian* (newspaper) 30 June 2016.

[75] See CCA 2008, Part 1, 'Carbon Target and Budgeting'.

[76] Although this political-legal space to act on the international stage could be conceivably restricted to some pronounced extent if the UK strikes a particular trade (or similar) agreement with the EU for the post-Brexit period, e.g., a UK-EU customs union.

[77] But note also A. Druckman, M. Chitnis, S. Sorrell and T. Jackson, 'Missing Carbon Reductions? Exploring Rebound and Backfire Effects in UK Households' (2011) 39 (6) Energy Policy (2011) 3572, which in considering these sorts of issues also highlights the dangers of money that is freed up from savings being ploughed into other collateral emissions-driven activities.

[78] See further G. Boyle, *Renewable Energy: Power for a Sustainable Future* (Oxford University Press 2012).

[79] Of course, one must also bear in mind that technology is constantly developing. It seems likely that second and third 'generation' renewables will greatly improve upon the renewable technologies commonly available at the present moment. Fossil fuel-specific developments could also significantly alter the energy landscape, for example improved and less expensive carbon capture and storage technologies. Nuclear energy provides another low-carbon energy source option, and although this means of energy generation comes with various risks and problems, the scientific community is also working to unlock alternative nuclear energy yields and improved nuclear storage technologies. Detailed analysis of nuclear energy is beyond the direct scope of this paper, but it is notable that Brexit will exert a potentially significant impact on the nuclear sector

as changes to regulations may (potentially) arise, and as the UK (certainly) exits Euratom, see further: S. Zawadzki, 'UK Nuclear Operator warns of Plant Outages if Brexit Mismanaged', *Reuters* news agency report, issued 13 September 2017.

[80] The TFEU lays out the basic architecture of EU environmental policy at art 191, which provides a legal context in which climate law operates. Environmental policy is 'based' upon the following principles:

> the precautionary principle
>
> the principle that preventative action should be taken
>
> the principle that environmental damage should be rectified ideally at the source
>
> the polluter pays principle.

See Treaty on European Union and the Treaty on the Functioning of the European Union [2012]/C 326/47 art 191(2)(TFEU).

[81] *Ibid.* (TFEU), art.4(2)(i) ('energy'); at art.4(2)(e), 'environment' is designated as a shared competence.

[82] *Ibid*. arts.120 - 126 (TFEU).

[83] *Ibid*. art.122.

[84] *Ibid*. art.191(1).

[85] *Ibid.* Title XXI art.194(1)(a)-(d).

[86] *Ibid.* art.194(1).

[87] *Ibid.* art.194(1)(a).

[88] *Ibid.* art.194(1)(c).

[89] *Ibid.* art.194(1)(d). On the issue of energy interconnection in the context of Brexit, see further D.Greenwood and F.Albani, 'Brexit and Climate Change Policy: Is the UK's Energy Trilemma Set to become

Merely a Dilemma?' (2016) 28(5) Environmental Law and Management 201.

[90] Council Directive 2009/72/EC [2009] OJ L211/55.

[91] Council Directive 2009/73/EC [2009] OJ L211/94.

[92] Council Regulation (EC) 713/2009 [2009] OJ L 211/1; Council Regulation (EC) 714/2009 [2009] OJ L 211/15; and Council Regulation (EC) 715/2009 [2009] OJ L 211/36.

[93] See European Commission, COM (2017) 53 final for the Commission's 'Second Report on the State of the Energy Union'. The Energy Union's key progress indicators and monitoring processes are detailed in European Commission, SWD(2017) 32 final.

[94] Governance impact in this area will also depend in part upon the type of trade (or similar) relationship that the UK may negotiate with the EU over the course of the exiting process, if agreement can be reached.

[95] It is also the case that tariffs on energy flowing between the UK and the rest of the EU could conceivably arise in the context of Brexit. On the single market, tariffs and trade deals for energy, see M.G. Pollitt, *The Economic Consequences of Brexit: Energy* Energy Policy Research Group (Cambridge University), Working Paper 1702.

[96] TFEU, art.194(2).

[97] Where the measures referred to in art.194(2) are primarily of a fiscal nature, art.194(3) asserts that a special legislative procedure involving Council unanimity is required.

[98] TFEU, art.192(2)(c).

[99] Even where the UK grandfathers EU law into its own legal order on the instant of Brexit (see above), gaps and inconsistencies are bound to arise, for example where EU law refers specifically to powers vested in EU-level institutions that will have lost their authority in the UK setting when Brexit occurs. Legal provisions pertaining narrowly to the EU single market, etc., will also create fault-lines in the law.

[100] Council of the European Union (2007), 'Presidency Conclusions', Brussels European Council 8/9 March 2007 7224/1/07 CONCL 1.

[101] The EU has also developed 2030 climate and energy goals, which extend the 2020 framework for 2030 in a way designed to harmonise with longer-term 2050 EU energy intentions, see further: *A Roadmap for Moving to a Competitive Low Carbon Economy in 2050* (COM/2011/112); *Energy Roadmap 2050* (COM/2011/885); *A Policy Framework for Climate and Energy in the Period from 2020 to 2030* COM(2014) 15 final/2. The emerging 2030 framework is not in law at the time of writing, but the policy framework can be said to be in force. The policy framework seeks to ramp up the 2020 obligations for 2030 by requiring: reductions in greenhouse gas emissions of at least 40% on 1990 levels; a 27% energy efficiency target (this is indicative and will be reviewed in 2020); and an increase in the share of renewable energy to at least 27% of the energy consumed in the EU.

[102] Council Directive 2009/29/EC [2009] OJ L140/63 (ETS Directive).

[103] Council Decision 406/2009/EC [2009] OJ L 140/136 (Effort Sharing Decision). 16% reflects the disaggregated UK target (at Annex II to the Decision); domestically the UK is hoping to exceed its 16% reduction requirement.

[104] Council Directive 2009/231/EC [2009] OJ L140/114 (CCS Directive).

[105] Council Directive 2009/28/EC [2009] OJ L140/16 (Renewables Directive).

[106] *Ibid.* art.3.

[107] *Ibid.* Annex I.

[108] *Ibid.* Annex I.A.

[109] As noted at the outset of this study, UK Government intends that its European Union (Withdrawal) Bill 2017-2019 will incorporate all UK legislation derived from the EU into UK law as it stands at the moment that the UK exits the EU: see European Union (Withdrawal) Bill 2017-2019, s.2. It is intended that this incorporation of EU law will be drawn as widely as possible; for example, it will include all UK Acts of Parliament

and secondary legislation that have been enacted to give effect to EU Directives.

[110] It should also be noted that due to the broad and cross-cutting nature of energy generation and decarbonisation, the *20-20-20* framework overlaps to a partial extent with aspects of the EU's efforts to control industrial pollution; on power station emissions standards, see Council Directive 2010/75/EU OJ L 334/17 (Industrial Emissions Directive). Further, ozone depleting gasses are greenhouse gasses, and so the EU's body of ozone-reducing law has some minor overlapping relevance: see generally S. Bell, D. McGillivray and O. Pedersen, *Environmental Law* (8th Edition, Oxford University Press 2008) 'Ozone Depletion' 541-543.

[111] UK Government has included these controversial powers in the European Union (Withdrawal) Bill at the time of writing: see further n.6 above and text to note. The powers would act as a Henry VIII clause enabling UK Government to alter EU-derived law by means of a statutory instrument or equivalent secondary act without the process of Parliamentary oversight and scrutiny that normally attaches to such significant changes to the law. In theory, the powers would give the government the capacity to deconstruct key aspects of the *20-20-20 programme* once it is received into UK law.

[112] The scientific community has concluded that emissions ought to be reduced such that global temperature rise can be contained to within a 2 degree Celsius increase on pre-industrial levels, however this is not achievable on present emissions trends.

[113] For example, the EU was the first large region to apply substantial binding emissions reduction targets. One consequence of this has been an EU-wide flourishing of renewables.

[114] Directive 2009/28/EC (*supra* n.105).

[115] Directive 2009/29/EC (*supra* n.102).

[116] Council Decision 406/2009/EC (*supra* n.103).

[117] Council Directive 2009/231/EC (*supra* n.104).

[118] Council Directive 2012/27/EU [2012] OJ L315/1 (Energy Efficiency Directive).

[119] Council Directive 2002/91/EC [2002] OJ L1/65.

[120] Council Directive 2010/31/EU [2010] OJ L153/13.

[121] Council Directive 2006/32/EC [2006] OJ L114/64.

[122] See: Council Decision 1639/2006/EC [2006] OJ L 310/15; Council Directive 2009/125/EC [2009] OJ L285/10; Council Directive 2010/30/EC [2010] OJ 153/1.

[123] Commission Staff Working Document, Impact Assessment, Energy Efficiency Plan 2011 SEC (2011) 277 final 7.

[124] The situation soon improved in the wake of the Directive, although the Commission was reporting as recently as 2014 in *Communication on Energy Efficiency* (COM(2014) 520 final) that the EU was still not entirely on track in this area, stating that it would be likely that the 20 % target for 2020 could be missed by a margin of 1-2 %. Indeed, the Commission also pointed out at that time that 'if current trends continue by 2020, roughly 1/3 of reduction in energy consumption compared to the 2007 Reference will stem from lower [economic] growth than anticipated, and only about 2/3 from increasing energy efficiency improvements[.]': European Commission, 'Executive Summary of the Impact Assessment' accompanying the Communication COM(2014) 520 final, at para [4].

[125] In early 2017 the Commission reported that energy efficiency performance has significantly improved in the approach to 2020, stating that 'The Commission is optimistic that the 20 % primary energy consumption target will be reached if Member States stick to their commitments and continue to implement existing EU energy efficiency legislation and successful energy efficiency programmes'; European Commission COM(2017) 56 final.

[126] Good background to the directive is provided in A. Johnston, K. Neuhoff, D. Fouquet, M. Ragwitz, and G. Resch, 'The Proposed New EU Renewables Directive: Interpretation, Problems and Prospects' (2008) *European Energy and Environmental Law Review* 17 126.

[127] See further, e.g., I. Traynor, 'European Leaders Clash over Pledges on Global Warming' *The Guardian* (London, 11 December 2008).

[128] See, e.g., D. Carrington, 'UK Cancels Pioneering £1bn Carbon Capture and Storage Competition', *The Guardian* 25 November 2015.

[129] See: S. Stevenson, 'Opinion: The End of DECC - Threats and Opportunities', *Energy Voice* 19/07/2016, accessible here: <https://www.energyvoice.com/opinion/114951/opinion-end-decc-threats-opportunities/> accessed 18 September 2017.

[130] See e.g.: A. Vaughan, 'UK Solar Power Installations Plummet after Government Cuts', *The Guardian* 8 April 2016; 'UK Government confirms April 2016 Closure of Onshore Wind Subsidies', 9 October 2015 *Out-Law.com: Legal News and Guidance from Pinsent Masons*, available here: <http://www.out-law.com/en/articles/2015/october/uk-government-confirms-april-2016-closure-of-onshore-wind-subsidies/> accessed 18 September 2017.

[131] S. Bulmer, 'The Governance of the EU: A New Institutionalist Approach' (1994) 13 (4) Journal of Public Policy 351.

[132] L. Hooghe (ed.), *Cohesion Policy and European Integration: Building Multi-level Governance* (Oxford University Press 1996).

[133] M. Jachtenfuchs, 'The Governance Approach to European Integration' (2001) 39 (2) Journal of Common Market Studies 245.

[134] G. Marks, 'Structural Policy and Multilevel Governance in the EC' in A.W Cafruny and G. G Rosenthal, *The State of the European Community Volume 2* (Lynne Rienner 1993) 391.

[135] G. Marks, Liesbet Hooghe and Kermit Blank, 'European Integration from the 1980s: State-Centric vs Multi-level Governance' (1996) 34 (3) Journal of Common Market Studies 341.

[136] This is the thesis commonly advocated by 'institutionalists', and, within that area, historical institutionalists in particular. On the EU, see generally M.A. Pollack, 'The New Institutionalism and European Integration' in Wiener and Diez (eds) *supra* n.26, 67-87.

CITATION + LIVE LINK:
Muinzer, Thomas L. 'An Evaluation of the Implications of EU Climate and Energy Governance for the UK in light of Brexit' 23(2) *European Journal of Current Legal Issues* (2017)
< http://webjcli.org/article/view/564/752 >

[137] See P. Pierson's classic paper 'The Path to European Integration: a Historical Institutionalist Analysis' (1996) 29 (2) Comparative Political Studies 123-163.

[138] M. Levi, 'A Model, a Method, and a Map: Rational Choice in Comparative and Historical Analysis', in M. I. Lichback and A. S. Zuckerman (eds.), *Comparative Politics: Rationality, Culture, and Structure* (Cambridge University Press 2002) 28.

[139] Although the regime is described as 'extensive' here, it has also been noted earlier that the EU (and the international community more generally) needs to go much further in its reduction targets if the dangerous consequences posed by anthropogenic climate change are to be adequately offset.

[140] Or whichever equivalent transitional process may be applied; the (Withdrawal) Bill route noted here is favoured at the time of writing.

[141] The expression 'as definitively *as possible*' is used here insofar as it will not be possible to directly incorporate many aspects of the supranational climate and energy framework into UK law on the moment of Brexit as things stand even if UK Government wished to (unless some sort of accommodating agreement can be reached in advance with the EU where legal incoherence arises). For example, it amounts to a nonsense to directly incorporate the totality of the EU ETS Directive into UK law at the moment of Brexit, insofar as that Directive applies a trading scheme to *EU Member States*, and thus *not* to the UK at the moment of Brexit, unless special agreement can be secured in advance that permits the UK's continued participation. A small number of non-EU states do participate in the ETS, but under terms of formal agreement with the EU. At the time of writing it is possible that negotiations will result in the UK remaining part of the EU ETS, but the EU is taking measures in case agreement cannot be reached and UK withdrawal from the scheme crashes the carbon market, see: J. Brunsden and A. Barker 'EU makes Contingency Plans to Protect Carbon Market from Brexit', *Financial Times*, September 10 2017.

[142] As discussed above. For general consideration of the beneficial impacts of the UK's EU membership in the sphere of environmental law and governance, see S. Holmes, 'Brexit and Environmental Law' (2016) (28)(1) Environmental Law and Management 37.