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The Future Shape of EU Energy Law and Policy

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BEFORE I HAD even arrived in Cambridge as a young lecturer in my first full-time academic post, Alan Dashwood had extended the hand of friendship. Soon after I arrived, we began our first co-authored project together, and I have been fortunate to enjoy his guidance, support and friendship ever since. He has always kindly indulged my perhaps more maverick legal interests, yet has also consistently insisted that energy law does not fall into that category. I am immensely grateful for all of this and hope that I may crave his indulgence one more time with this contribution on the future of EU energy law and policy. The twin themes of this chapter will be, first, the need for careful accommodation at the EU level of the diversity of Member State interests and concerns in the energy field (thus respecting the nature of the EU as a 'constitutional order of states')[1] and, second, the slow but real shift in EU (and some national) energy law and policy away from reliance upon market mechanisms and towards more complex regimes (involving market and other regulatory tools) to achieve a myriad of public interest goals.

I SHAPING THE DEBATE: 'ARE YOU A ROUNDY OR A SQUARY'?[2]

As a child, I vividly remember reading a short series of books by Roger Hargreaves, of 'Mr Men' fame, which started by posing the question: 'Are you a Roundy or a Squary?' As is clear from even its front cover, the implication is that one is rather happier as a 'Roundy' than as a 'Squary': when one reads further, one finds that Squaries' problem is that they are focused on material things like money and possessions, and on the work

[1] A Dashwood 'The Limits of European Community Powers' (1996) 21 *European Law Review* 113 and 'States in the European Union' (1998) 23 *European Law Review* 201.

[2] R Hargreaves *Are You a Roundy or a Squary?*; *I'm a Roundy, You're a Squary*; *Everybody's a Roundy or a Squary*; and *If You Aren't a Roundy, You're a Squary* (all Thurman Publishers, 1975).

needed to acquire them. Roundies, meanwhile, value things which the author portrays as 'really' important, like the natural world and principles such as freedom. While something of simplification, this provides a nice analogy to the development of European Union[3] law and policy in the energy sector: Squaries in the field may be taken as those who advocate the introduction of liberalisation and market processes, relying upon them to achieve the supply of energy of the type and to the extent that we need in an effective and efficient manner, while Roundies would prioritise other public interest goals, such as environmental and social protection, even if this would require the redesign (and even removal) of markets and regulation to achieve those objectives.

Alongside the first volume, there are also three other books by Hargreaves from the same period: *I'm a Roundy, You're a Squary*, and the more taxonomically inclined pair of *Everybody's a Roundy or a Squary* and *If You Aren't a Roundy, You're a Squary*. The implication of the series is clear: one has to be one or the other, and if you are not 'with' the Roundies, then you must be 'against' them. Naturally, in the real world of EU energy law and policy, such a straightforward division of loyalties cannot be identified. Indeed, the reality of the history of the European Union has been that different Member States have been more or less 'round' or 'square' in their approaches to law and policy in general, EU law and policy in particular, and EU energy law and policy most particularly for our purposes here.[4] The UK provides a case in point, having moved during its EU membership from a vertically integrated and publicly owned energy supply industry to the largely privatised, vertically separated companies which operate in the sector today.[5] By contrast, the German situation always involved a complex mixture of local and national, state and private ownership and operation of the sector,[6] while France consist-

[3] For ease of reference throughout, and now that the Treaty of Lisbon has entered into force, I will refer to the 'EU' to cover the current manifestation of the Treaties and their previous incarnations, except insofar as it is necessary to distinguish more precisely between the particular Treaties involved.

[4] For an early history, see N Lucas, *Energy and the European Communities* (London, Europa Publications, 1977). For an introduction to the background, see generally: F McGowan, *The Struggle for Power in Europe* (London, RIIA, 1994); and A Midttun (ed), *European Electricity Systems in Transition: A Comparative Analysis of Policy and Regulation in Western Europe* (Kidlington, Elsevier, 1996).

[5] See F McGowan, 'Ideology and Expediency in British Energy Policy' in F McGowan (ed), *European Energy Policies in a Changing Environment* (Heidelberg, Physica Verlag, 1996) ch 5; ED Cross, *Electric Utility Regulation in the European Union—a Country by Country Overview* (London, Chancery Law Publishing, 1996) ch 12; D Helm, *Energy, the State and the Market: British Energy Policy since 1979*, 2nd edn (Oxford, Oxford University Press, 2004); and S Dow, 'Energy Law in the United Kingdom' in M Roggenkamp, C Redgwell, I Del Guayo and A Rønne (eds), *Energy Law in Europe,* 2nd ed (Oxford, Oxford University Press, 2007) ch 15.

[6] See Cross, above n 5, above, ch 7; and J-C Pielow, H-M Koopmann and E Ehlers, 'Energy Law in Germany' in Roggenkamp et al (eds), above n 5, paras 9.11–9.16 and the references cited therein.

ently maintained both a strong degree of vertical integration and state involvement in the energy sphere.[7] Nevertheless, for the purposes of exposition, these basic shapes of policy sketched here are a useful device.

The different approaches to the energy sector were partly ideologically driven and partly due to differing natural resource bases and other factors (such as industrial relations and basic political practicalities and pragmatism); but they had to be accommodated at EU level in the formulation, development and application of EU-level energy law and policy.[8] The accommodation of this diversity in the legal and policy frameworks provides an excellent, if sometimes frustrating, illustration of the operation of a 'constitutional order of states' in action (or, indeed, inaction). Particular instances of these accommodations will be highlighted throughout this short contribution.

II 'HIP TO BE SQUARE'[9]

The history of EU-level energy legislation and policy is too long and involved to be treated in detail here, but a clear shift can be traced back to the Commission's White Paper on the Internal Market in 1985,[10] whose basic principles found detailed expression for the energy sector in the Commission's Working Document on an Internal Energy Market in 1988. That document, in line with the general philosophy of the Single Market Programme, identified the key precondition for progress in the energy industry as 'the greatest possible transparency with regard to potential obstacles'.[11] With specific reference to electricity, the Commission identified a number of potential obstacles to the creation of an internal electricity market, although the major focus was clearly on how the industry was organised in Europe. Aspects which were highlighted were those of unequal treatment of producer utilities as between Member States (such as fiscal and financial conditions, consent procedures for the authorisation of new construction, the cost of production depending on the cost of fuels where fuel choice policy varied significantly between Member States),

[7] See D Finon, 'French Electricity Policy: the Effectiveness and Limitations of Colbertism' in McGowan (ed), above n 5, ch 2; and Cross, above n 5, ch 2.

[8] For discussion of some of this process up to 1998, see A Johnston, 'Maintaining the Balance of Power: Liberalisation, Reciprocity and Electricity in the European Community' (1999) 17 *Journal of Energy and Natural Resources Law* 121, esp ss 1–3.

[9] Huey Lewis and The News (Capitol, 1986). NB: in concert, Huey Lewis now normally sings the song as '(Too) Hip to Be Square', as performed on their live album, *Live at 25* (available at http://en.wikipedia.org/wiki/Live_at_25): a further sign of the changing times, perhaps?

[10] Commission, 'Completing the Internal Market', COM(1985) 310 final, available at http://europa.eu/documents/comm/white_papers/pdf/com1985_0310_f_en.pdf.

[11] Commission, 'Working Document on the Internal Energy Market', COM(1988) 232 final, available at http://aei.pitt.edu/4037/01/000179_1.pdf, para 34.

the compartmentalisation of national markets due to the largely internal character of the commercial usage of high-voltage interconnection systems (despite the fact that they had long been physically connected) and supplies to users at the distribution, large consumer and ordinary consumer levels. Also included on the list were taxation differences and the relative opacity of electricity costs and prices, without which any workable system of competition would be extremely difficult to achieve.

This all led, ultimately (and after much wrangling among the Member States and extensive industry lobbying from both energy companies and their customers), to three rounds of directives aimed at creating an internal energy market, as well as a number of other legislative and institutional developments designed to support and develop that market.[12] In conjunction with this, further EU-level steps were taken in this direction through the increasingly proactive and far-reaching enforcement of the free movement and competition rules by the Commission and private parties.[13] In short, the market-oriented process of liberalisation and 'regulation for competition' came into fashion during the 1980s, a trend with which the EU caught up during the 1990s and of which the Commission has proved a dedicated follower more or less ever since.

At national level,[14] this trend resulted in the liberalisation of the energy sector, often, but not always, coupled with privatisation: but the key focus was the introduction of competition wherever possible along the energy value chain, most particularly upstream in electricity generation and downstream in sales to customers and for the provision of so-called ancillary services (such as metering and maintenance). This trend chimed with 1980s US–UK capitalist and New Public Management consensus in this direction, infusing the state and its (management) activities with

[12] See PD Cameron, *Competition in Energy Markets: Law and Regulation in the European Union,* 2nd edn (Oxford, Oxford University Press, 2007) ch 1 and paras 2.01–2.63. Similar legislative developments can be tracked in other sectors such as rail and air transport, telecommunications, water and postal services.

[13] For a relatively early assessment, see PJ Slot, 'Energy and Competition' (1994) 31 *Common Market Law Review* 511. More recently, see C Jones (ed), *EU Energy Law, Volume II: EU Competition Law and Energy Markets,* 2nd revised edn (Leuven, Claeys & Casteels, 2007) and Cameron, *Competition in Energy Markets*, above n 12, esp chs 11–16. Most recently, see L Hancher and A Hauteclocque, 'Manufacturing the EU Energy Markets: the Current Dynamics of Regulatory Practice', EUI Working Paper, RSCAS 2010/01, who note that the Commission is pursuing often experimental regulatory goals via competition law, turning it from classic *ex post* correction of market failures into what they describe as '*quasi-ex ante* regulatory' approach.

[14] For a general treatment of the economics, see D Newbery, *Privatization, Restructuring and Regulation of Network Utilities* (Cambridge, MA, MIT Press, 1999). It should, however, be noted that there has been strong French resistance to these developments throughout the E(E)C process in the 1980s and 1990s, continuing even today in the EU in certain areas and ways: a good introduction to the history of French energy policy in the twentieth century is provided by M Chick, *Electricity and Energy Policy in Britain, France and the United States since 1945* (Cheltenham, Edward Elgar, 2007), sections pertaining to France in chs 1, 2, 4, 5 and 6.

disciplines from the private/market sphere,[15] finding its ultimate expression in privatisation and liberalisation policies. These developments also responded to the criticism of the old regime that those in charge of running such public utilities bore none of the risks involved and were not in any meaningful sense held to account were such utilities to fail: the costs of any such failures were, ultimately, borne by customers and/or taxpayers (via state support and intervention).

III EVEN SQUARING THE CIRCLE . . .

Over the past few decades, there has been a growing reliance upon economically influenced, market-based mechanisms to secure and/or improve environmental protection. Their goal is to seek the least-cost, most efficient ways of achieving public interest goals.[16] Perhaps one of the first practical examples of this is to be found in the USA under the Clean Air Act Amendments 1990, introducing a 'cap-and-trade' scheme for sulphur oxide (SOx) emissions (a further scheme was later developed to cover nitrogen oxide emissions) in an attempt to tackle the problems of acid rain.[17] Probably the most famous, still highly topical and controversial, example remains the Kyoto Protocol,[18] leading to the UK[19] and now the

[15] Although note that US developments concerning market deregulation and liberalisation in the last 30 years have largely been confined to the state, rather than Federal, level (with the exception of natural gas transmission pipeline expansion and its concomitantly cross-state-border reach): see, eg Chick, *Electricity and Energy Policy*, above n 4, ch 6.

[16] For general discussion, see RN Stavins, 'Market-based Environmental Policies: What Can We Learn from US Experience (and Related Research)?' in J Freeman and CD Kolstad (eds), *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience* (New York, Oxford University Press, 2007) ch 2 (see also http://papers.ssrn.com/sol3/papers.cfm?abstract_idem=421720) and D Driesen, 'Alternatives to Regulation? Market Mechanisms and the Environment' in M Cave, R Baldwin and M Lodge (eds), *Oxford Handbook on Regulation* (Oxford, Oxford University Press, 2009) (see also: http://papers.ssrn.com/sol3/papers.cfm?abstract_idem=1268435) ch 10. The first suggestion to create an emissions trading programme as a rational approach to securing emissions reductions in an economically efficient manner was made by JH Dales, *Pollution, Property and Prices* (Toronto, University of Toronto Press, 1968). For more recent discussion of the history and practice of tradable emissions permits, see TH Tietenberg, *Emissions Trading: Principles and Practice,* 2nd edn (Washington, DC, Resources for the Future, 2006). Recent reports, however, suggest that the Obama administration in the USA may yet drop proposals for a US cap-and-trade carbon emissions regime, in the interests of securing enough votes to pass the Energy Bill, available at http://www.nytimes.com/cwire/2010/02/03/03climatewire-obama-says-senate-may-drop-cap-and-trade-pas-21189.html (accessed on 3 February 2010).

[17] For detailed discussion of the SO_x scheme, see A D Ellerman, P L Joskow, R Schmalensee, J-P Montero and E M Bailey, *Markets for Clean Air: the US Acid Rain Program* (Cambridge, Cambridge University Press, 2000).

[18] Kyoto Protocol to the Framework Convention on Climate Change (1998) 37 ILM 22.

[19] The Greenhouse Gas Emissions Trading Scheme Regulations 2003, SI 2003, No 3311: this was a complex, voluntary scheme with incentives for those who participated and which linked with the UK's Climate Change Levy and with Climate Change Agreements concluded between companies and government (where the former promised to make efficiency savings

EU Emissions Trading Scheme.[20] But there have been other manifestations of this trend in the energy sector, including various Member States' reliance upon Renewable Obligation Certificates[21] and other tradable certificates[22] to generate incentives for firms to behave in an environmentally sustainable manner, whether by trying to increase the share of electricity generated from renewable sources or to encourage measures to improve efficiency in, and reduce demand for, energy consumption.[23]

These devices all function by setting firm and legally binding targets to be achieved by those required to participate in the scheme which require an overall reduction (in emissions, or increase in renewable electricity generation) beyond that otherwise envisaged and then create tradable instruments which can be used to verify that those targets have been met across the relevant jurisdiction. If a certain participant can exceed the targets set, then they can sell their surplus to others: in this fashion, the least-cost abater (or improver) should be incentivised to do as much as is economic in exceeding the targets, allowing others to pay the market rate to benefit from each unit of the 'over-achievement' by others, leading to overall gains (whether reductions or increases, depending upon the scheme) in line with the targets set. Then, for the next reference period, new targets are set, usually more stringent than before, to ensure that the trajectory is maintained (and even improved). In this way, the goal is set by government in the public interest, but the choices are left to the market as to how best and most efficiently to ensure that they are achieved: hence the description of such devices as 'squaring the circle', since they aim to employ the disciplines of the market to achieve public interest goals in an efficient manner.[24]

in their emissions, which were not necessarily absolute cuts in total emissions). The Commission cleared the scheme, finding that its state aid elements were justifiable on environmental grounds: see Commission Press Release IP/01/1674, 28 November 2001.

[20] Originally Dir 2003/87/EC [2003] OJ L275/32; for allocations from 2012, see now the changes wrought by Dir 2009/29/EC [2009] OJ L140/63 (for a consolidated version, see http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF).

[21] The most obvious example is the UK system (the current scheme is to be found in the regime of the Renewables Obligation Order 2009, SI 2009, No 785), but there are others who have adopted a so-called 'green certificate' scheme, including the Netherlands, Sweden and Italy.

[22] In the energy efficiency field, known as 'white certificates': both France (Law No 2005-781 of 13 July 2005) and Italy (Decree Law No 20/07 of 8 February 2007) have begun to use this instrument to encourage improved energy efficiency.

[23] For a helpful overview, see C Banet, 'The Use of Market-based Instruments in the Transition from a Carbon-based Economy' in DN Zillman, C Redgwell, Y Omorogbe and LK Barrera-Hernández (eds), *Beyond the Carbon Economy: Energy Law in Transition* (Oxford, Oxford University Press, 2008) ch 10; on energy efficiency, see B Barton, 'The Law of Energy Efficiency' in Zillman et al, n 43 above, ch 4.

[24] Cameron, *Competition in Energy Markets*, above n 12, para 1.59 and ch 17.

IV YET, INCREASINGLY, SQUARE PEGS IN ROUND HOLES?

Over the past few years, however, a shift in approach and aims can be charted, at both EU and some national levels. Recent legal and policy instruments have begun to prioritise the achievement of targets and goals. This development ties in closely with questions of accountability and political scrutiny of such areas of activity, even if it is often largely private actors who are involved in the delivery of services and, thus, the actual achievement of such targets on the ground. It is no exaggeration to suggest that these developments are an indication that the broader and deeper political implications of energy policy are becoming appreciated more widely outside government and industry circles, and are now exercising a direct influence within domestic and international political processes. In short, electorates are both more interested in, and (crucially) now increasingly holding governments responsible for, the achievement (or not, as the case may be) of energy and environmental goals. Yet the original market regimes constructed by those governments and legislators were not necessarily designed with the achievement of any specific goals in mind, other than the introduction of market mechanisms as a discipline for providing energy services in a more efficient manner.

A The Development and Operation of the European Emissions Trading Scheme[25]

The original development of the EU Emissions Trading Scheme (ETS), and the need to accommodate various interests in the negotiation and drafting process, led to some rather substantial difficulties in the operation of the scheme: for example, the decision taken to rely almost entirely upon the free allocation of allowances under the scheme (rather than an auctioning process),[26] leading to state aid questions about returns earned by energy companies.[27] The concern to achieve the goal of getting the system up and running was undoubtedly laudable, and one which provided an important opportunity for 'learning-by-doing' for the EU and its companies prior to

[25] See, generally, J Delbeke et al, *European Energy Law, Volume IV: EU Environmental Law—the EU Greenhouse Gas Emissions Trading Scheme* (Leuven, Claeys & Casteels, 2006); see also D Freestone and C Streck (eds), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms: Making Kyoto Work* (Oxford, Oxford University Press, 2005), esp chs 16 and 17, and *Legal Aspects of Carbon Trading: Kyoto, Copenhagen and Beyond* (Oxford, Oxford University Press, 2009), esp chs 16 and 17.

[26] M Grubb and K Neuhoff, 'Allocation and Competitiveness in the EU Emissions Trading Scheme: Policy Overview' (2006) 6 *Climate Policy* 7.

[27] A Johnston, 'Free Allocation of Allowances under the EU Emissions Trading System—Legal Issues' (2006) 6 *Climate Policy* 115 (also available as Electricity Policy Research Group Working Paper 06/20 (2006) at http://www.electricitypolicy.org.uk/pubs/wp/eprg0620.pdf).

the expected operation of a global emissions trading scheme under the Kyoto Protocol (and beyond). Yet these compromises often had the effect of undermining the actual effectiveness of the EU ETS in achieving the goal of emissions reductions (at least in the EU ETS first and second reference periods): these difficulties undermined both the economic rationale behind the cap-and-trade system (excessive allocation, minimal incentive to reduce emissions, lack of sufficiently deterrent penalties for non-compliance, etc) and the achievement the environmental goal of emissions reductions (at least in the short term).[28] On the other hand, the very fact that these differing views and concerns were accommodated in the legislative process is indicative of the responsiveness of the EC legislative process to the concerns expressed by its Member States when pursuing innovative and far-reaching policies such as emissions trading. These same tensions have been apparent in the second phase of the scheme (for example in connection with the position of energy-intensive industries and so-called carbon leakage),[29] to which we will return shortly (see section IV.C(ii) below).

B Other Emerging Issues

A myriad of issues has been raised by the combination of the EU's various goals (market, environment, security) and by their interaction with domestic and international political pressures.

(i) 'Fuel Poverty' Questions

In the early years of liberalisation, a commonly advanced argument was that increased competition across the system would lead to lower prices for customers;[30] indeed, to listen to some, it seemed that only if this were achieved could the process be judged a success. Of course, such a goal would always be difficult to achieve in absolute terms in the face of ever-scarcer primary energy resources and the environmental goals which were beginning to receive attention. The target of lower prices can only sensibly be analysed as a kind of counter-factual—ie lower than they would have been had we continued on the pre-existing course—and even this will be hard to show with any kind of analytical certainty or robustness. Nevertheless, it is clear that, as energy prices have risen and as they are

[28] For a balanced overview of these difficulties and the lessons to be learned from them, see AD Ellerman and P Joskow, *The European Union's Emissions Trading System in Perspective* (Pew Center on Global Climate Change, MIT, May 2008) (available at http://www.pewclimate.org/docUploads/EU-ETS-In-Perspective-Report.pdf).

[29] See K Neuhoff and F Matthes (eds), *The Role of Auctions for Emissions Trading* (Climate Strategies, October 2008).

[30] See W Patterson, *Transforming Electricity* (London, RIIA/Earthscan, 1999).

predicted to rise further in the future (if we are to achieve environmental goals such as the decarbonisation of the electricity supply network), the question of fuel poverty has risen rapidly up the political agenda. Specific measures to tackle this phenomenon are likely to remain at national level, since they typically mesh most closely with domestic taxation and/or social security regimes. Nevertheless, fuel poverty concerns have regularly been cited under the EU policy heading of secure supplies for all,[31] which interacts closely in the electricity field with the universal service obligation first recognised in EU law by Article 3(3) of the 2003 electricity internal market Directive[32] and the development of Public Service Obligations more generally (see section IV.D, below). And it is possible that future EU-level measures and actions will need to be fine-tuned to accommodate the possibility of restrictions upon competition to ensure that energy suppliers are in a financial position to be able to provide services to vulnerable customers (eg via cross-subsidy from those less unfortunate).

(ii) Binding Targets for Energy from Renewable Sources and the New EU Renewables Directive

One criticism of the first EU Renewables Directive was that the targets it set for Member States were only indicative in nature and not 'binding' in any real sense.[33] The European Parliament called for mandatory targets to be introduced, and these have now been adopted in Article 3 of the new Renewables Directive.[34] While various mechanisms are also introduced to keep Member States on track to achieve these targets (including the adoption of national renewable energy action plans (Article 4) and various associated reporting and information provision obligations), it seems that the only way to enforce these binding targets will be for the Commission to bring an enforcement action under Article 258 TFEU (ex-Article 226 EC), with the possible subsequent imposition of penalties under Article 260 TFEU (ex-Article 228 EC).[35] Whether this will prove to be either an

[31] See Commission Communication, 'An Energy Policy for Europe' COM(2007) 1 final (10 January 2007), para 3.17; and Recitals 36, 50 and 53, Arts 36(h) and 3(7) (8) of Dir 2009/72/EC [2009] OJ L211/55.

[32] Dir 2003/54/EC [2003] OJ L176/37; see now Art 3(3) of the latest electricity directive, Dir 2009/72/EC (above n 3).

[33] Dir 2001/77/EC [2001] OJ L283/33: see Art 3 in conjunction with the Annex's burden sharing of the overall EU target among the Member States.

[34] Dir 2009/28/EC [2009] OJ L140/16, in conjunction with Annex I thereto.

[35] On the use of Arts 226–88 EC, see A Bonnie, 'The Evolving Role of the European Commission in the Enforcement of Community Law: From Negotiating Compliance to Prosecuting Member States?' (2005) 1 *Journal of Contemporary European Research* 39; and P Wennerås, 'A New Dawn for Commission Enforcement under Arts 226 and 228 EC: General and Persistent (GAP) Infringements, Lump Sums and Penalty Payments' (2006) 43 *Common Market Law Review* 31. For discussion of the possible introduction of stronger enforcement mechanisms into the Directive (which suggestions were not taken up by the EU legislature), see A Johnston, K Neuhoff, D Fouquet, M Ragwitz and G Resch, 'The

effective deterrent or an effective enforcement mechanism in the event of default remains to be seen.[36]

However, the original Commission proposal[37] to allow a limited form of trading in Guarantees of Origin (GOs)[38] between private parties was removed from the final text, after objections from certain Member States (especially Germany) and the European Parliament.[39] Instead, the final form of the Directive contained a mechanism allowing only inter-government statistical transfers of specified amounts of renewable energy, allowing the recipient government to count that energy against its own renewables target: see Article 6 of the new Directive. Whatever the pros and cons of this retreat from a slightly more market-based, EU-mandated mechanism for renewables promotion, the fact thereof indicates genuine concern in both some Member States and the European Parliament that EU-level measures of this kind could undermine the viability and, in time, even preclude the use of alternative methods (such as feed-in tariffs) for encouraging renewable energy development. This provides a further illustration both of doubts as to the appropriateness of such market-oriented instruments and of the practical operation of the EU's constitutional order of states. In the absence of consensus on the need for, and shape of, EU-wide measures, the outcome of the legislative process reached a compromise which set ambitious and harder-edged EU targets to be achieved by each of the Member States and created a limited EU-level mechanism allowing some inter-Member State co-ordination (via the statistical transfer provision, joint projects (Article 7) and/or joint support schemes (Article 11) between Member States), while at the same time respecting a diversity of approaches across the Member States with regard to how best to achieve those targets.

Proposed New EU Renewables Directive: Interpretation, Problems and Prospects' [2008] *European Environmental Law Review* 126, 144–45.

[36] See the present author's presentation, 'How Binding Are the EU's "Binding" Renewables Targets?' at the CEEPR/EPRG European Electricity Workshop, Berlin, 15–16 July 2010, available at http://web.mit.edu/ceepr/www/about/Summer%202010/Johnston.pdf. Similar practical enforcement questions might be asked of the UK's much trumpeted adoption of binding national emissions reduction targets (80% by 2050) and binding carbon budgets under its recent Climate Change Act 2008.

[37] Commission, 'Proposal for a Directive on the Promotion of the Use of Energy from Renewable Sources', COM(2008) 19 final (23 January 2008), available at http://ec.europa.eu/energy/climate_actions/doc/2008_res_directive_en.pdf.

[38] In Art 2(g) of the Commission's Proposal (COM(2008) 19 final (23 January 2008)), a GO was defined as 'an electronic document which has the function of providing proof that a given quantity of energy was produced from renewable sources'

[39] See Johnston et al, 'The Proposed New EU Renewables Directive', above n 35, for detailed analysis of the proposal concerning inter-private party trade in such Guarantees of Origin. The new definition concerning GOs is found in Art 2(j) of Dir 2009/28/EC (above n 34), which emphasises that a GO is 'an electronic document which has the *sole* function of providing proof to a final customer that a given share or quantity of energy was produced from renewable sources' (emphasis added), thus excluding the use of GOs as a tradable certificate.

(iii) Security of Supply: Measures and Investments

In the face of blackouts,[40] questions concerning Russian gas supplies (transit through the Ukraine, alternative pipeline routes)[41] and fears concerning possible terrorist attacks on critical infrastructure,[42] it seems likely that 'security of supply' will become one of the key features of EU energy law and policy in the near future. Unpacking exactly what the 'security of supply' concept contains is no easy task, and this is not the place to attempt it. Briefly, it encompasses both short- and long-term security, and technical, practical and geopolitical aspects: key elements include regular/continuous supply, affordable cost and access to supplies, as well as the physical integrity and safety of the relevant infrastructure. It is thus something of a catch-all concept, rendering its precise presentation and analysis difficult at the best of times.[43]

From relatively humble beginnings in the wake of the oil shocks of the 1970s,[44] the EU has become increasingly concerned, both as a whole and as individual Member States, with securing energy supplies and reducing dependence upon imports from outside the EU.[45] While the Commis-

[40] For analysis of European instances and responses, see UCTE, 'Security of Electricity Supply: Roles, Responsibilities and Experiences within the EU' (January 2006); ERGEG, 'Final Report: The Lessons to be Learned from the Large Disturbance in the European Power System on the 4th of November 2006' (E06-BAG-01–06, 6 February 2007), available at http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_ERGEG_PAPERS/Electricity/2007/E06-BAG-01–06_Blackout-FinalReport_2007–02–06.pdf); and E Van der Vleuten and V Lagendijk, 'Interpreting Transnational Infrastructure Vulnerability: European Blackout and the Historical Dynamics of Transnational Electricity Governance' (2009) 38 *Energy Policy* 2053.

[41] On the first Russo-Ukrainian gas crisis, see K Westphal, 'Energy Policy between Multilateral Governance and Geopolitics: Whither Europe?' (2006) 4 *Internationale Politik und Gesellschaft* 44. On the 2009 repeat performance, see S Pirani, J Stern and K Yafimava, 'The Russo-Ukrainian Gas Dispute of January 2009: a Comprehensive Assessment' (Oxford, OIES, February 2009), available at http://www.oxfordenergy.org/pdfs/NG27.pdf.

[42] See AEA, 'Study on Risk Governance of European Critical Infrastructures in the ICT and Energy Sector: Final Report to the European Commission' (4 September 2009), available at http://ec.europa.eu/energy/infrastructure/studies/doc/2009_10_risk_governance_report.pdf.

[43] For analysis, see S Haghighi, *Energy Security: The External Legal Relations of the European Union with Major Oil and Gas Supplying Countries* (Oxford, Hart Publishing, 2007) ch 1; and B Barton, C Redgwell, A Rønne and D Zillman (eds), *Energy Security: Managing Risk in a Dynamic Legal and Regulatory Environment* (Oxford, Oxford University Press, 2004).

[44] Although the first EEC legislation concerning oil stocks in fact dates from 1968—Dir 68/414/EEC [1968] OJ L308/14 (with its various amendments, now codified in Dir 2006/67/EC [2006] OJ L217/8)—specific measures aimed at mitigating crude oil and petroleum supply difficulties were adopted in 1973 and 1977 (Dir 73/238/EEC [1973] OJ L228/1 and Dir 77/706/EEC [1977] OJ L292/9, respectively).

[45] See the Commission's Green Papers: 'Towards a European Strategy for the Security of Energy Supply', COM(2000) 769 final (29 November 2000) (and its subsequent Communication reporting thereon: COM(2002) 321 final (26 June 2002)) and 'A European Strategy for Sustainable, Competitive and Secure Energy', COM(2006) 105 final (8 March 2006); and see COM(2007) 1 final, above n 31. See, generally, Cameron, *Competition in Energy Markets*, above n 12, ch 18.

sion has consistently argued that liberalisation and competition strengthen security of supply by ensuring that market actors receive the right signals about investment and demand, the internal market directives for both electricity and gas contain a number of provisions allowing Member States to take measures to ensure and promote supply security. Some of those provisions specifically authorise derogations from market liberalisation and competition provisions,[46] albeit in what are in practice a relatively limited range of circumstances due to their wording and the enduring applicability of the trade and competition provisions of what is now the TFEU (see its Articles 101–108). Further, recent proposals and measures have shown an increasing willingness on the Commission's part at least to propose the pursuit of more interventionist policies in the name of security of supply. To date, the EU has adopted specific directives concerning security of supply in both the electricity[47] and natural gas[48] sectors, and more recently passed a regulation on Union financing for key energy projects[49] as part of a package to stimulate economic recovery in the wake of the financial crisis. At the time of writing, heated debate continued in the Council over a proposed regulation in the field of gas supply security,[50] which turns on the extent to which EU-level minimum standards for supply security should be imposed. This has created much controversy among Member States, given that a 'one-size-fits-all' policy fails to take into account significant variations across Member States with regard to their exposure to supply security difficulties.[51] This, again, illustrates clearly the two themes

[46] Arts 42 and 3(2) (14) of the electricity directive, Dir 2009/72/EC, above n 31; see also Art 7 of the electricity regulation, Reg 1228/2003/EC [2003] OJ L176/37, and Arts 3, 36 and 46 of the gas directive, Dir 2009/73/EC [2009] OJ L211/94. One should note that the market can operate positively in the security of supply field, responding to supply shortages by providing a clear price signal to that effect, leading to interactions between providers across the value chain to cover that shortage; of course, the 'cost' of reliance upon such a mechanism is price volatility, which can cause difficulties (eg re fuel poverty, on which see Section B(i), above).

[47] Dir 2005/89/EC [2006] OJ L33/22.

[48] Dir 2004/67/EC [2004] OJ L127/92.

[49] Reg 663/2009/EC [2009] OJ L200/31, which includes a detailed annex listing the eligible projects and the envisaged Community contribution to each. It should be noted that the Regulation pursues environmental sustainability and economic recovery goals alongside supply security, while endeavouring to distribute these investments 'taking into account an adequate geographical balance' (Recital 4), again illustrating the complex policy combinations and compromises at work in the sector when seeking to act on the EU level.

[50] 'Proposal for a Regulation Concerning Measures to Safeguard Security of Gas Supply', COM(2009) 363 final (16 July 2009), available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0363:FIN:EN:PDF; for discussion and critique, see P Noël and S Findlater, 'A Comment on the Draft EU Regulation on Security of Gas Supply' (EPRG, University of Cambridge, 3 July 2009), available at http://www.eprg.group.cam.ac.uk/wpcontent/uploads/PN_SF_Comment%20on%20the%20draft%20Regulation(2).pdf.

[51] For suggestions on how to resolve these difficulties, see P Noël, 'Ensuring Success for the EU Regulation on Gas Supply Security' (EPRG, ECFR, 9 February 2010), who favours a 'bottom-up' approach focusing on Member States' adoption of regular national energy security assessments and action plans, which are published across the EU so as to incentivise information- and experience-sharing among Member States.

emerging from this contribution: negotiating difficulties at the EU level due to diversity in Member States' positions concerning how supply security issues might affect them alongside recognition that reliance upon the market alone is unlikely to be sufficient to ensure the achievement of a public interest goal (here, security of gas supplies).

C Greater (Political) Commitment to Achieving Goals, and Less Faith in the Market Process to Reach Those Goals:[52] the Challenges of Environmental Policy

From these brief examples, it starts to become clear that the orientation of EU law and policy in the energy sphere is in the process of shifting away from a clear and overriding goal of 'regulation for competition',[53] towards a more complex balance between market and other public interest objectives. While this complexity has always been more or less present in most Member States' domestic energy law and policy, this shift at the EU level has only recently become pronounced. Some of the pressures 'from below' on EU law and policy are discussed below and they suggest that the trend on the EU level discussed in the preceding subsection is likely to continue in the years to come.

(i) Promoting the Generation of Electricity from Renewable Sources

An examination of the UK's Renewables Obligation (RO) regime and its tradable Renewables Obligation Certificates (ROCs)[54] when compared with the German system of feed-in tariffs and supported prices for electricity generated from renewable sources has shown that, while both systems have led to increased renewables deployment, the German system has been far more successful in getting significant amounts of renewable generation built.[55] It also shows that ROCs which cover all

[52] Eg F Matthes, 'Do We Need the Return of State Planning to Overcome the Climate Change Challenge?' in A Giddens, S Latham and R Liddle (eds), *Building a Low-carbon Future: the Politics of Climate Change* (London, Policy Network, 2009) ch 4.

[53] See the discussion in Cameron, *Competition in Energy Markets*, above n 12, ch 1 and the references cited therein.

[54] Which system functions by imposing an obligation upon electricity suppliers to source an increasing proportion of their electricity from renewable sources, evidenced by submitting ROCs to prove that they have met that obligation or else paying a buy-out price to the extent that they have failed to do so. The proportion was 9.1% in 2008–09 and is currently 9.7% for 2009–10.

[55] A Johnston, A Kavali and K Neuhoff, 'Take-or-Pay Contracts for Renewables Deployment' (2008) 36 *Energy Policy* 2481 (also available as Electricity Policy Research Group Working Paper 07/07 (2007) at http://www.electricitypolicy.org.uk/pubs/wp/eprg0707.pdf). In early 2010, the UK renewables share of generation was around 5.5%, which is well short of the 30% projected to be required to meet the UK's 2020 energy targets. In Germany, renewables penetration is already well in excess of 25%.

different kinds of renewable generation sources do not provide incentives to develop diversity and innovation across the range of such sources: for example, the renewable technology currently closest to unsubsidised viability in the electricity market is wind power, and thus ROC prices on the market tend, roughly, to stabilise around the levels required to support wind generation. Yet that price level will not provide sufficient support to encourage the development of renewable generation using other technologies, such as solar power and tidal power. The UK has acknowledged this latter problem in the latest incarnation of the RO scheme by creating a 'banding' regime for ROCs,[56] under which some technologies will have to generate more electricity, and others less, to qualify for each ROC granted.[57]

This empirical evidence suggests that a market response[58] which provides significant development of renewable electricity generation capacity requires medium- to long-term guarantees about returns on up-front investment and about stability of government policy in the area.[59] Such guarantees themselves would seem to imply at least some insurance against the uncertainties of the free market, particularly when competing against other generation sources whose costs are subject to very different cycles and constraints (such as natural gas or coal). Of course, this picture would be incomplete without mentioning the constraints imposed by planning legislation: many developers in the renewables field complain[60] that the time, expense and uncertainty of the planning[61] process in the UK are a

[56] Renewables Obligation Order 2009, SI 2009, No 785, on which see Ofgem, 'Renewables Obligation: Guidance for Generators over 50kW' (27 March 2009), available at http://www.ofgem.gov.uk/Sustainability/Environment/RenewablObl/Documents1/Large%20Gen%20Guidance%202009%20-%20for%20publication.pdf.

[57] Thus, eg landfill gas earns only 0.25 ROC per MWh generated, sewage gas or biomass 0.5 ROC, onshore wind 1.0 ROC and offshore wind 1.5 ROCs, while wave, tidal stream, solar photovoltaic, geothermal and microgeneration receive 2.0 ROCs per MWh: for the full list and definitions, see Ofgem, ibid, 33. (Note that pre-existing microgeneration will be transferred to, and new microgeneration will fall under, the new feed-in tariff regime from 1 April 2010.)

[58] Indeed, ss 41–43 of the UK's Energy Act 2008 also empowered the creation of a feed-in tariff scheme to support small-scale (<5 MW) renewable generation, and the government has now announced that such a scheme will be introduced (available at http://www.decc.gov.uk/en/content/cms/news/pn10_010/pn10_010.aspx and http://www.decc.gov.uk/en/content/cms/consultations/elec_financial/elec_financial.aspx). The scheme will be called 'Clean Energy Cashback' and will enter into force in England and Wales on 1 April 2010: see http://www.energysavingtrust.org.uk/Generate-your-own-energy/Sell-your-own-energy/Clean-Energy-Cashback-Feed-in-Tariffs for details.

[59] For an interesting and original contribution on securing stability over time in government policy for respecting international agreements, see R Ismer and K Neuhoff, 'Commitments Through Financial Options: an Alternative for Delivering Climate Change Obligations' (2009) 9 *Climate Policy* 9.

[60] See, eg Centrica's forceful views of 5 November 2007, reported at http://uk.reuters.com/article/idUKL0228070200711105 (although in many respects directed towards constructing gas storage capacity, the issues are much the same).

[61] Such concerns are being highlighted by commentators across the world: on the USA see, eg JR Nolon, 'Climate Change and Sustainable Development: the Quest for Green

major explanation for the UK's relatively slow development of renewable electricity generation. Much of this is clearly due to the domestic system and its operation,[62] but that has itself been shaped by EU environmental legislation over the years, including the Directives on Environmental Impact Assessment,[63] Strategic Environmental Assessment[64] and Public Access to Environmental Information.[65]

(ii) Legal Challenges by Member States to the Commission's Role in the Operation of the EU ETS

In the autumn of 2009, successful challenges were brought by Poland and Estonia to the Commission's decisions on their National Allocation Plans (NAPs) under the EU ETS,[66] which plans had sought to grant more allowances domestically than the Commission was willing to approve. It seems that these plans to allocate more allowances were due to fears of high domestic costs imposed on business by tighter allowance caps (and the resulting risk of 'carbon leakage'—whereby emitting industries leave the EU for countries without emissions caps and then import their production back into the EU, while another intra-EU emitter emerges to use the new space under the EU emissions cap, thus increasing overall global emissions). For the Commission, these proposals were excessive when compared with the projected emissions which would actually occur in those (and other) countries during the reference period: to allow such high allocation levels would have been to move away from the economic rationale for the cap-and-trade system and back to political deal-making with domestic industry interests. It should be noted that the Commission refused to concede that the judgments would lead to any extra allowances

Communities—Parts I and II' (2009) 64(10) *Planning & Environmental Law* 3 and 64(11) *Planning & Environmental Law* 3, respectively.

[62] And has led to recent changes in UK legislation, endeavouring to simplify and speed up the approval process for large infrastructure projects: see the Planning Act 2008, whose Part 3 covers 'nationally significant infrastructure projects' including energy in ss 15–21. It is perhaps a measure of how complicated the previous system had become that the 2008 Act itself contains 242 sections and 13 schedules.

[63] Dir 85/337/EEC [1985] OJ L175/40 (as amended by Directives 97/11/EC [1997] OJ L73/5 and 2003/35/EC [2003] OJ L156/17), on which see COM(2009) 378 final (23 July 2009).

[64] Dir 2001/42/EC [2001] OJ L197/30, on which see COM(2009) 469 final (14 September 2009).

[65] Dir 2003/4/EC [2003] OJ L41/26, implementing some of the obligations imposed by the Århus Convention (on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters (1999) 38 ILM 517) and building upon the earlier Dir 90/313/EEC [1990] OJ L158/56 (which was repealed by Dir 2003/4/EC).

[66] Cases T-183/07 *Poland v Commission* and T-263/07 *Estonia v Commission*, judgments of 23 September 2009.

making it on to the market.[67] In essence, the result of the judgments was that the Commission had to reach new formal decisions on the matter, which it did on 11 December 2009, again rejecting the NAPs of Poland and Estonia on various grounds of incompatibility with the guiding criteria for such NAPs laid down in the EU ETS Directive.[68]

The key consequence was that the Court of First Instance found that the Commission lacked the power under the Directive to fix the maximum level for the total quantity of allowances to be allocated by any given Member State. This is, so the Court said, because the Directive lays down a division of powers between Member States and the Commission which specifically envisages that the Member State shall develop a NAP which states the total quantity of allowances it intends to allocate (see Articles 9(1) and 11(2) of the Directive). The Commission's role is to check compatibility of the NAP with the Directive's Annex III and Article 10 criteria, which role does not include constraining the Member State's discretion in taking the final decision on the total quantity of allowances to be allocated.

These are very fine distinctions, and this is borne out by the Commission's recent Decisions again rejecting the proposed NAPs of both Poland and Estonia. In them, the Commission pointed out the grounds of inconsistency with the allocation criteria but specifically refrained from making suggestions of what allocations would be 'acceptable' to the Commission, lest this be construed as attempting to fix the allocations itself and thus intruding upon the Member State's powers under the Directive.

Given that the new EU ETS Directive[69] (which was adopted prior to these judgments) will remove Member States' powers to determine their own NAPs from 2012, it may prove difficult to argue against the Court's interpretation of the legislation as it stands, since otherwise one would have to ask why the change in the Commission and Member States' respective roles would have been needed in the new Directive. Neverthe-

[67] First, the Commission made plain that it had to take new decisions on the two National Allocation Plans in question, making clear that in the interim no new allowances could be issued and pointing out that the actual emissions observed were in line with those envisaged by the Commission in its original decisions: see Press Release IP/09/1355, 24 September 2009 and 'Commission Says Poland, Estonia cannot issue more carbon allowances' (25 September 2009), available at http://euobserver.com/9/28720/?rk=1. Subsequently, on 3 December 2009 the Commission announced that it had decided to appeal against the CFI's judgments in these cases (pending Cases C-504 and 505/09, respectively), available at http://www.eubusiness.com/news-eu/climate-warming.1s4.

[68] P/09/1907, and http://ec.europa.eu/environment/climat/emission/pdf/pl_decision_en.pdf and http://ec.europa.eu/environment/climat/emission/pdf/et_decision_en.pdf for the text of the two decisions (on, respectively, the Polish and Estonian NAPs), all of 11 December 2009.

[69] Dir 2009/29/EC [2009] OJ L140/63: see esp Art 9 (which replaces NAPs with an EU-wide quantity of allowances published by the Commission, which quantity is to reduce in a linear manner year on year, by 1.74%) and Arts 10, 10a, 10b and 10c (which harmonise the criteria by which Member States are to auction and, in a limited range of cases, allocate allowances).

less, given the fact that observed emissions have actually been lower than some of the Member States had suggested (and in fact more in line with the estimates made by the Commission in its decisions on the NAPs), it seems likely that some diplomatic solution will be reached without significantly increasing the overall amount of allowances in circulation. However, the whole episode illustrates Member States' tendencies to resort to political manipulation of the allocation criteria and quantities when such decisions are left in their hands: this undermines the use of such market-based mechanisms to achieve environmental goals and threatens the new EU approach to designing markets more effectively to deliver environmental objectives.

The market, meanwhile, reacted to these judgments with a significant drop in the carbon price (by as much as 3.9 per cent according to one report), reflecting uncertainty[70] as to the overall supply volume of allowances in the system and the predictability of that supply in the future. This uncertainty is underlined by the fact that six other Member States[71] have applications pending before the CFI on similar grounds to those relied upon in the Polish and Estonian cases. Others have hurried to reassure campaigners and markets alike that the extent of such uncertainty is likely to be small at worst.[72]

(iii) National Concerns about Achieving Emissions Reductions Targets under the EU ETS: Securing a Minimum Carbon Price?

There have been suggestions in the policy community that the achievement of genuine CO_2 reductions under the current meshed European and national systems within the EU will require a much higher carbon price, with a minimum price to safeguard and encourage investment decisions by business and financiers, and to incentivise innovation, research and development. This has become particularly pressing in the face of reductions in emissions due to the recent recession across the EU, which has led to significant falls in the carbon price. Yet no moves have been made at EU level to secure such a minimum price under the EU ETS. This has led to discussions in some Member States (such as the UK)[73]

[70] See Norton Rose's short report (in late September 2009) on the CFI's judgments, the first sub-heading of which is 'Where to Now for Market Certainty?', available at http://www.nortonrose.com/knowledge/publications/2009/pub23247.aspx?page=all&lang=en-gb.

[71] The cases concern: Bulgaria (T-499/07); the Czech Republic (T-194/07); Hungary (T-221/07); Latvia (T-369/07); Lithuania (T-368/07); and Romania (T-483 and 484/07).

[72] See C Egenhofer, 'Court Ruling Need Not Cause Carbon Market to Unravel' (CEPS, 1 October 2009), available at http://www.ceps.be/book/court-ruling-need-not-cause-carbon-market-unravel.

[73] Most recently (8 February 2010), the UK Parliament's Environmental Audit Committee has considered this issue and called for the government seriously to consider measures, including a carbon tax, to set a floor for carbon prices: to set a floor for carbon prices to set a floor for carbon prices (see the press release at http://www.parliament.uk/parliamentary_

about introducing some form of domestic carbon tax to ensure a minimum carbon price.[74]

The aim of such a tax would be to design the market so as to incentivise and facilitate the 'right' kinds and amounts of (environmentally sustainable, etc) investment. Essentially, a tax-based system would seek to establish a carbon tax (z) on top of the cost of an emissions allowance (x), at a level to ensure that the overall 'cost of carbon' always reached at least a certain minimum amount (y), ie $x + z \geq y$. In practice, the easiest way to achieve this would be a uniform carbon tax, charged at the level of y. Then a rebate could be given to anyone holding an emissions allowance to the market value of that allowance, subject to the limit that no rebate payment would be any greater than the original level of the tax charged (ie y). Thus, if the market price of emissions allowances were to exceed the tax (ie $x > y$), then effectively the tax would not impose an extra cost[75] beyond the need to purchase emissions allowances (whether at the original auctions or subsequently on the market). Meanwhile, so long as that market price was below the up-front level of the tax (ie $x < y$), the tax would add the necessary increment to ensure the desired minimum carbon price. The result would be the creation of a minimum price for carbon set at the level of the carbon tax; that carbon price could rise higher where the market price of allowances exceeded the minimum level set by the tax, but it could not fall below the floor set by that tax. This tax mechanism would also be open to amendment over time,[76] should

committees/environmental_audit_committee/eacpno80210.cfm; and the report, 'The Role of Carbon Markets in Preventing Dangerous Climate Change', available at http://www.publications.parliament.uk/pa/cm200910/cmselect/cmenvaud/290/29002.htm, esp s 4). Carbon taxes are already levied in Finland, the Netherlands, Sweden, Denmark, the UK and France (in order of the date of their introduction): for an overview, see J Sumner, L Bird and H Smith, 'Carbon Taxes: A Review of Experience and Policy Design Considerations', National Renewable Energy Laboratory (USA) Technical Report NREL/TP-6A2-47312 (December 2009), available at http://www.nrel.gov/docs/fy10osti/47312.pdf.

[74] See, on the general question, P Wood and F Jotzo, 'Price Floors for Emissions Trading', FEEM Working Paper 118.2009 (7 January 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_idem=1532701, suggesting that firms should pay some form of extra fee or tax to implement such a 'price floor' policy.

[75] This excludes the enforcement costs associated with such a tax regime, which includes both compliance costs for the companies concerned and the cost to the state of running the system of taxation and rebates: no doubt the state's costs in running that system would swallow much of the extra net revenue generated by the tax. Thus, the overall welfare costs and benefits of such a tax system would need to be examined very carefully and compared to alternative possible schemes when conducting a regulatory impact assessment, and might yet amount to a further argument against such an approach (see the subsequent paragraph in the text).

[76] Of course, care would have to be taken to ensure that these tax levels were not too readily manipulated by the rough and tumble of domestic politics, whether in raising such taxes to an excessively high level or (perhaps more likely) allowing them to fall in the face of pressure from business or other lobbyists. Lack of certainty in this regard would undermine the whole purpose of introducing such a tax regime in the first place, and would perhaps suggest that the level of any such tax should be determined by an independent

it become clear that a lower or higher minimum carbon price would be more appropriate to achieve the goal of emissions reductions.

It may also be argued that an alternative way to achieve this goal would be to introduce reserve prices under the mechanism for auctioning allowances under the EU ETS. Under the latest incarnation of the EU ETS Directive,[77] an auctioning process will be used for allocations of allowances from 2013 onwards: to date, the vast majority of allowances has been allocated for free, with only very small proportions (up to 5 per cent in the first phase and up to 10 per cent in the second) being auctioned. Under a system mainly based on auctioning, a provision adopted at EU level allowing for the setting of reserve prices in such auctions would provide (depending upon its precise formulation) a harmonised solution to this problem across the EU, unlike the suggestions in the preceding paragraph (which would proceed on the basis of national taxation measures in any Member State which wished to introduce them). This might well be a preferable approach,[78] so far as general EU law considerations are concerned, since one could envisage a range of difficult questions being raised with regard to the domestic taxation proposal. For example, the rules on internal taxation under Article 110 TFEU (ex-90 EC) may prove challenging, particularly if the national system were to respond to potential protests by large domestic electricity consumers by imposing some form of border tax adjustments against imported products which would not be subject to the higher effective UK carbon price. Alternatively, EU state aids law might prove a challenge if the response to such imports were instead to exempt certain domestic emitters from the tax, and of course such exemptions would themselves call into question whether the very goals of the tax-based approach to securing a minimum carbon price would actually be achieved.

While neither of these approaches would signal an abandonment of the market process altogether, they would amount to an acknowledgment that

regulator or government agency. These possibilities suggest that industry might not ascribe sufficient credibility to a tax-based system as a long-term, reliable instrument, which in turn might dampen enthusiasm for the necessary investment to develop technology and deploy it effectively and in good time.

[77] See Art 10, Dir 2009/29/EC [2009] OJ L140/63.

[78] Although it must be conceded that there may be little appetite among the Commission, Council and European Parliament to return to the amendment of the EU ETS so soon after the adoption of the 2009 Directive. Thus, much may turn on whether a reserve auction price might be introduced into the EU ETS through the Commission's envisaged Regulation on auctioning, to be adopted under Art 10(4) of the new Directive by 30 June 2010 conducted according to the 'regulatory committee with scrutiny' variant of the comitology process, under Art 23(3) of Dir 2009/29/EC. Nevertheless, it also seems inconsistent to pursue unilateral measures at a time when the interdependence between EU Member States' energy systems and needs is increasingly accepted: see, eg PD Cameron, 'From Producer to Consumer: the UK's Changing Energy Strategy in the EU' in P Andrews-Speed (ed), *International Competition for Resources: The Role of Law, the State and of Markets* (University of Dundee Press, Dundee 2008) 45.

there is a need for greater regulatory intervention in that market process (or, at least, a more involved and nuanced approach to designing that market) to ensure that the goals for which it was created are actually achieved in practice.

D Ownership Unbundling and the General Quid Pro Quo of EU Legislative Bargaining

The ownership unbundling (OU)[79] of vertically integrated energy companies was a key feature in the intense debates over the third energy package: it aimed to secure greater competition and cross-border trade, and to reduce the ability and/or incentives for vertically integrated (VI) incumbents to exploit their market power to keep markets less open and accessible to new entry by competitors. Yet one might also question whether such OU will secure the number and scale of investments needed to meet the EU's multifarious energy goals (of competition, environment and energy security). Ultimately, reluctance in some Member States to accept a simple OU rule for transmission networks led to a compromise which adopted full OU as the default position but allowed Member States to derogate from this (Article 9(8) of Directive 2009/72/EC). This could be done either by designating an 'Independent System Operator' (Articles 13 and 14: essentially, this allows the maintenance of a pre-existing legally unbundled transmission system operator as part of a VI operation, with additional regulatory oversight), subject to the Commission's approval, or by using the provisions in Chapter V of the Directive to create an Independent Transmission Operator (Articles 17ff: this creates a complex and detailed regime subjecting a legally unbundled transmission operator to far more extensive institutional requirements (Trustee, Supervisory Board, Compliance Programme) and regulatory oversight to ensure the independence of the transmission element of the business).

One can clearly speak of a quid pro quo process in the enhancement of the EC energy liberalisation directives over their three iterations to date.[80] For example, from minimal early beginnings, public service obligations (PSOs)[81] and consumer protection[82] questions have become much more

[79] For an outline, see A Johnston, 'Ownership Unbundling: Prolegomenon to a Legal Analysis' in M Bulterman, L Hancher, A McDonnell and H Sevenster (eds), *Views of European Law from the Mountain*—Liber Amicorum *Piet Jan Slot* (Kluwer Law International, Alphen aan den Rijn, 2009) ch 23.

[80] I have discussed elsewhere the difficult, multi-faceted genesis and problematic implications of the 'reciprocity' clauses in the first set of energy liberalisation Directives: see Johnston, above n 8.

[81] In the electricity sector, see DG TREN's Interpretation Note, 'Public Service Obligations' (16 January 2004), and now Art 3(2)(6) (Arts 14 and 15 of Dir 2009/72/EC, above n 31).

[82] Compare the relevant provisions in the first, second and third liberalisation packages: eg Annex I to the electricity internal market directive on consumer protection measures has

prominent and detailed in EC-level rules. These developments can be seen as the price paid in return for securing the almost universal application of Regulated Third Party Access rules,[83] the requirement to establish a national energy regulator(y function),[84] agreement by Member States to speeding up the market opening timetable[85] and the push towards ownership unbundling and away from vertical integration. This also tracks the introduction of Article 16 EC[86] by the Treaty of Amsterdam (now Article 14 TFEU), as well as the development of case law concerning PSOs and services of general economic interest under what is now Article 106 TFEU (ex-Article 86 EC)[87] and cognate provisions (eg the grant of concessions in cases like *Altmark-Trans*[88] and the conditions for avoiding the application of Article 107 TFEU (ex-Article 87 EC)).

V SQUARING OFF . . . AND CUTTING CORNERS?

And this circle doesn't fit its little square,
It bulges with opportunity . . . bulges.[89]

Writing in early 2010, one important but as yet unanswered question about the future of EU energy law and policy must be the impact of the Treaty of Lisbon in the energy field. In particular, the TFEU contains new provisions which for the first time provide a separate legal basis upon which the Union may adopt measures in the energy field.[90] At the same time, the TFEU explicitly reserves autonomy to Member States over

grown with every amendment, while also becoming more detailed (it now spans two pages in the Official Journal: see Dir 2009/72/EC at [2009] OJ L211, 90–91). On such consumer protection issues in the EU utilities sector generally, see P Nihoul, 'The Status of Consumers in EC Liberalisation Directives' (2009) 3 *Yearbook of Consumer Law* 67.

[83] See Arts 32 and 34 of the electricity directive, Dir 2009/72/EC (above n 31), and the slightly more nuanced position in Arts 32–36 and 38 of the gas directive, Dir 2009/73/EC (above n 46).

[84] Arts 35–41 of the electricity directive, ibid, and Arts 39–44 of the gas directive, ibid.

[85] Art 33 of the electricity directive, ibid, and Art 37 of the gas directive, ibid.

[86] See M Ross, 'Article 16 EC and Services of General Interest: from Derogation to Obligation' (2000) 25 *European Law Review* 22 and 'Promoting Solidarity: from Public Services to a European Model of Competition' (2007) 44 *Common Market Law Review* 1057.

[87] Eg the *Energy Import–Export* cases of 1997, concerning various national import and export monopolies in electricity and natural gas: Cases C-157/94 *Commission v Netherlands* [1997] ECR I-5699,; C-158/94 *Commission v Italy* [1997] ECR I-5789, C-159/94 *Commission v France* [1997] ECR I-5815 and C-160/94 *Commission v Spain* [1997] ECR I-5851, on which see PJ Slot, 'Annotation' (1998) 35 *Common Market Law Review* 1183.

[88] Case C-280/00 *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH and Oberbundesanwalt beim Bundesverwaltungsgericht* [2003] ECR I-7747.

[89] The Wonderstuff, 'Circlesquare' (Polydor, 1994).

[90] See Title XXI, Art 194 TFEU.

their own natural resources.[91] This may, perhaps, be seen as another quid pro quo development, this time in the process of negotiating the Lisbon Treaty: the price to be paid for a new Union competence in the energy field, independent of competition and internal market grounds, was the need to provide safeguards for Member States in highly sensitive areas, such as a given Member State's decisions about its future energy mix, exploitation of its natural resources and the structure of industries of particular national significance.

A similar trend might be seen in the relegation of 'competition' from the 'activities' of the Union (the old Article 3(1)(g) EC)[92] to 'Protocol No 27 on the Internal Market and Competition': is this likely to be significant in practice? Most[93] have argued that it will not lead to substantive changes in, for example, the Court of Justice's case law.[94] Yet, presentationally, it illustrates a change in attitude towards the prima facie centrality of competition to the internal market. Perhaps it is best understood as a marker in the Treaty which shows the difficulties that will be faced in the years to come when trying to reach a balance concerning the often competing economic and other goals now embodied in the EU Treaties. In many ways, these different goals have long been contained within the founding Treaties, but it is the current (and likely future) political and economic climate which is now bringing such conflicts more clearly to the fore.[95]

Of course, alongside these points, the general reforms made to the Union's decision-making processes will have an impact upon EU-level law-

[91] Under Title XX on the environment, see Art 192(2)(c) TFEU (prescribing the consultation procedure vis-à-vis the European Parliament and preserving unanimity in Council voting on 'measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply'); and see Art 194(2), second sentence, which provides that energy measures adopted under Art 194 TFEU: '. . . shall 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, without prejudice to Art 192(2)(c)'.

[92] See now Art 3(3) TEU and, concerning competence, Arts 3(1)(b) and 4(2)(a) TFEU.

[93] Albeit with some caution, R Barents, 'Constitutional Horse-trading: Some Comments on the Protocol on the Internal Market and Competition' in Bulterman et al (eds), *Views of European Law from the Mountain* (above n 79) ch 9. Logically, this should be correct, given that protocols have the same legal status as the text of the Treaties themselves: see the old Art 311 EC and, after the Treaty of Lisbon, Art 51 TEU.

[94] Particularly in those cases concerning Member State obligations under the norm of Arts 10 and 81/82 EC, such as Case 267/86 *Van Eycke v ASPA NV* [1988] ECR 4769, and Cases C-245/91 *Criminal proceedings against OHRA Schadeverzekeringen NV*, C-185/91 *Bundesanstalt für der Güterfernverkehr v Gebruder Reiff GmbH & Co KG* and C-2/91 *Criminal proceedings against Wolf W Meng* [1993] ECR I-5872, 5841 and 5791 respectively.

[95] For a similarly difficult issue of competition between market and other (here, labour and social protection) goals, see the Court of Justice's judgments in Cases C-341/05 *Laval un partneri* [2007] ECR I-11767, C-438/05 *ITWF v Viking Line* [2007] ECR I-10779, C-319/06 *Commission v Luxembourg* [2008] ECR I-4323 and C-346/06 *Rüffert* [2008] ECR I-1989, discussed by C Barnard, '*Viking and Laval*: An Introduction' (2008) 10 *Cambridge Yearbook of European Legal Studies* 463 and AC Davies, 'One Step Forward, Two Steps Back? The *Viking* and *Laval* Cases in the ECJ' (2008) 38 *Industrial Law Journal* 126.

and policy-making in most fields, including energy. New developments[96] concerning the input of national parliaments, a wider range of Council legislative meetings being held in public and the expansion of the range of areas subject to ordinary legislative procedure will all make subtle but distinct changes to the functioning of the EU's institutions and, concomitantly, to their law and policy output.

Perhaps the key question for future EU energy law and policy will be how best to combine the Commission's push (through DG Competition) to secure well-functioning energy markets across Europe with the pursuit of other priorities, such as environmental goals and security of supply considerations (in all of its many, many facets: fuel poverty and price questions; geopolitics; system stability and reliability). Increasingly, it seems that more direct approaches are being taken, opting for public procurement of desired energy generation and transmission capacity and types (which seek to accommodate competition concerns via competitive tendering processes),[97] allied with other techniques which try to increase available information for energy customers in the hope that they will take, for example, environmentally sustainable purchasing decisions for themselves (eg labelling initiatives to encourage green purchasing decisions and greater efficiency in energy usage).[98] Wherever these new policies may lead, the energy sector seems certain to present fascinating future challenges for EU and national law and policy, and for the interaction between these two levels, all of which will continue to test and refine the notion of the EU as a 'constitutional order of states'.

[96] Discussed (with reference to the proposals for a Treaty Establishing a Constitution for Europe, but covering the identical substance contained in the Treaty of Lisbon) in A Dashwood and A Johnston, 'The Institutions of the Enlarged EU under the Regime of the Constitutional Treaty' (2004) 41 *Common Market Law Review* 1481.

[97] See Recital 43 and Art 8 of Dir 2009/72/EC (above n 31), requiring Member States to provide for a tendering process for new generation capacity in the interests of security of supply. From a wide and growing literature on EU public procurement law, see S Arrowsmith and P Kunzlik (eds), *Social and Environmental Policies in EC Procurement Law: New Directives and New Directions* (Cambridge, Cambridge University Press, 2009), esp ch 9 (Kunzlik); C Bovis, *EC Public Procurement: Case Law and Regulation* (Oxford, Oxford University Press, 2006); C de Koninck, *European Public Procurement: The European Public Procurement Directives and 25 Years of Jurisprudence by the Court of Justice of the European Communities* (Kluwer, Law International, Alphen aan den Rijn, 2008); and P-A Trepte, *Public Procurement in the EU: A Practitioner's Guide* (Oxford, Oxford University Press, Oxford 2007).

[98] At EU level, see Art 3(9) of Dir 2009/72/EC, above n 31.