

Legal Aspects of Energy Policy

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9.1 INTRODUCTION

Law, understood as legislation and regulations, both domestic and international, as well as their implementation and enforcement, plays a major role in signalling and prompting or, conversely, preventing social change. Law is the language through which energy policies are formulated and enacted. An analysis of the transition towards a more affordable, clean, efficient and secure energy matrix must therefore recognise both the enabling and the limiting functions of law.

As a language, law uses different words to translate what from an economic or modelling perspective may be seen as the same policy. Yet the choice of such words can have significant practical implications. A basic example is the policy of putting a price on carbon. This policy could take the form of a tax, an emissions trading system, a regulation imposing a ceiling on certain types of emissions or the use of certain technologies. It could also be expressed through a wider set of policies such as removing fossil fuel subsidies, setting renewable energy targets or supporting renewable energy through a variety of schemes (e.g., feed-in tariff schemes).

This is already a complex set of options for the expression of carbon pricing. But from a legal perspective even this detailed level of analysis is still oversimplified. A tax, for example, can be legally structured in many different ways depending on what is taxed (e.g., certain fuels, electricity consumption, emissions beyond a set cap, and income), how it is taxed (e.g., through an indirect tax on a certain unit of the taxed object, and through direct taxation of benefits in a certain sector) and why it is taxed (e.g., merely to internalise negative externalities, to provide a (dis)incentive-inducing behavioural change, to penalise certain activities beyond what is required for behavioural inducements, and to raise revenue for certain activities). Moreover, the tax instrument must rest on a sufficient legal basis (e.g., a constitutional provision, a provision in a statute or a regulation implementing a statute), which, in turn, raises questions about the devolution of powers and proper implementation as well

as, more generally, the consistency of the implementation of the policy with a broader set of norms ranging from constitutional guarantees to human rights law, investment agreements and trade disciplines. Similar complexities are found in the legal means by which a price can be put on carbon through instruments other than a tax and, more generally, in the legal means of effecting other energy policies, such as entitlements over energy resources, the (de)regulation of energy markets, or liability for damage arising from energy activities.

It is puzzling that this complexity is largely overlooked in technological and mainstream economic approaches to energy policy.¹ To continue with the carbon price example, mainstream models simply assume that a ‘carbon price’ can be set at a certain level and the entire economy will rearrange itself on the basis of that price. But little attention is paid to the daunting task of translating the idea of a carbon price into an appropriate legal form. Most often, it is assumed that a carbon price amounts merely to a tax or trading scheme, whereas it is likely to take much more than that to have even an approximation of a carbon price in real life.

The purpose of this chapter is to explain in more detail the importance of the legal aspects of energy policy. The answer is relatively simple and can be summarised in two main propositions: (A) different legal expressions have different implications for the effectiveness and overall impact of a policy, and (B) the choice of legal expression (the choice of words to convey the same idea) is highly constrained by (i) law as a technology (i.e., the tools available to translate a policy into legal terms), (ii) the need to fit the policy within a broader legal framework and, of course, (iii) the underlying economic, social and political considerations affecting the choice of certain legal expressions. This chapter illustrates these two propositions by reference to three case studies relating to the extraction of shale gas in the EU (Section 9.2), decarbonisation in the United States (Section 9.3) and state support for renewable energy in India (Section 9.4).

9.2 EXTRACTION OF SHALE GAS IN THE EUROPEAN UNION

During the last fifteen years, the extraction of gas from shale formations through hydraulic fracturing or ‘fracking’ has become widespread in the United States. There are several reasons for this, including energy security considerations.² More recently, and for similar reasons, European countries – particularly Poland, the United Kingdom and Germany – have also taken an interest in shale gas as an alternative energy resource.³ The European Parliament, in a resolution adopted in 2012, has

¹ See, however, J.-F. Mercure et al., ‘Modelling Complex Systems of Heterogeneous Agents to Better Design Sustainability Transitions Policy’, (2016) 37 *Global Environmental Change* 102.

² G. Erbach, ‘Shale Gas and EU Energy Security’, European Parliament – European Parliamentary Research Service, (2014) Members’ Research Service, PE 542.167, p. 2.

³ *Ibid.*, pp. 5–6.

expressly recognised the relevance of shale gas (among other unconventional fossil fuels) as a low-carbon source of energy supply in Europe.⁴

This interest in fracking has required European policymakers to consider what legal means are most appropriate to govern the risks associated with this activity, in particular methane emissions and leakage of drilling fluids containing chemicals into soils and into surface and ground waters.⁵ In 2012, the European Commission conducted an online consultation open to individuals, national authorities and public and private organisations to seek their views on unconventional fossil fuel production in Europe, including the suitability of the current legal framework.⁶ Although the stakeholders participating in the survey expressed divergent views on the topic, they unanimously considered that the current legal framework was not ‘well adapted’ and that ‘the EU should take some action’.⁷ Accordingly, in 2014, the commission adopted a set of standards (so-called minimum principles) for the safe and environmentally friendly conduct of fracking.⁸ One of the recommendations made by the standards advises each member state to prepare a strategic environmental assessment (SEA) of its fracking policies.⁹ The standards also recommend the preparation of an environmental impact assessment (EIA) before member states grant fracking licences, and monitoring of fracking operators by member states on an ongoing basis throughout the different stages of shale gas exploration and production.¹⁰

It is notable, from a legal standpoint, that the commission’s recommendation are not formally binding. The commission merely ‘invites’ member states to implement its minimum principles and report back to the commission on an annual basis.¹¹ It is often thought that a non-binding legal instrument is necessarily a less effective means of pursuing policy goals than enforceable law. There is certainly some truth in this proposition, although practice shows that a non-binding instrument can provide a reason for action when there is a will to do so.

For example, following the commission’s recommendation, the UK carried out a SEA before granting any new licences to operators.¹² The UK thus complied with

⁴ European Parliament Resolution 2011/2308 (INI) concerning the environmental impacts of shale gas/oil extraction activities (21 November 2012), point (C).

⁵ L. Cremonese et al., ‘Shale Gas and Fracking in Europe’, (2015) IASS Potsdam, Fact Sheet no. 1, pp. 2–3.

⁶ For further information on the questionnaire and the results of the consultation, see http://ec.europa.eu/environment/consultations/uff_en.htm.

⁷ F. Cohen et al., ‘Analysis and presentation of the results of the public consultation “Unconventional fossil fuels (e.g., shale gas) in Europe”’, Final Report for the European Commission DG Environment (2013), 14.

⁸ European Commission Recommendation on minimum principles for the exploration and production of hydrocarbons (such as shale gas) using high-volume hydraulic fracturing (hereinafter Recommendation) (22 January 2014), 2014/70/EU.

⁹ Recommendation, point 3.1, p. 75.

¹⁰ Recommendation, point 3.3 and points 6 to 11, pp. 75–77.

¹¹ Recommendation, point 16.1, p. 78.

¹² Report from the Commission to the European Parliament and the Council on the effectiveness of Recommendation 2014/70/EU on minimum principles for the exploration and production of

this requirement regardless of the recommendation's non-binding character. By contrast, Poland continued to grant licences without conducting an SEA of its fracking policies, contrary to the recommendation.¹³ In such a situation, it makes a difference whether an instrument is binding or non-binding. Thus, while Poland's non-compliance with an obligation to conduct an EIA under binding EU law resulted in the European Commission commencing infringement proceedings against Poland before the EU Court of Justice,¹⁴ there is no possibility of similar action for its failure to comply with the recommendation.

This example suggests that whether an instrument implementing a policy is binding or not can have significant impacts on the successful implementation of energy policies insofar as the implementation of non-binding instruments depends to a greater extent upon political will. At the same time, there are reasons for the selection of a non-binding instrument to govern a certain issue. In the present case, the Commission's decision to adopt a non-binding instrument¹⁵ was driven by the need 'to act urgently'¹⁶ on a matter on which member states had shown divergent positions.¹⁷ The urgency of the adoption of this measure can be appreciated in the light of the growing practice established by some member states (e.g., Poland and the UK) of granting shale gas prospecting and exploration licenses even in the absence of a comprehensive EU-wide regulatory framework.¹⁸ The commission also sought to adopt a measure that would provide 'a reference action at national level'.¹⁹ This also occurred in practice. For example, Lithuania set out requirements concerning monitoring of shale gas exploration and exploitation activities that are more detailed than those established by the recommendation.²⁰

hydrocarbons (such as shale gas) using high-volume hydraulic fracking (hereinafter Report) (15 December 2016), COM(2016) 794, point 3.1, p. 3.

¹³ Report, point 3.1, p. 3.

¹⁴ Report, point 5, p. 8. For more information about the infringement procedure brought against Poland, see European Commission Press Release on 'Environmental Impact Assessment: Commission refers Poland to the Court of Justice of the EU over inadequate assessment of exploratory mining drillings' (28 April 2016), at http://europa.eu/rapid/press-release_IP-16-1454_en.htm.

¹⁵ The Commission considered several types of legal instruments to establish an EU-wide regulatory framework on fracking, including a legally binding instrument (i.e., a directive). See European Commission Impact Assessment concerning the exploration and production of hydrocarbons (such as shale gas) using high volume hydraulic fracturing in the EU (hereinafter Impact Assessment) (22 January 2014), SWD (2014) 21 final, pp. 44 ss. In the end, however, it adopted a non-binding instrument (i.e., the recommendation).

¹⁶ European Commission Memo on questions and answers on the shale gas initiative (hereinafter Memo) (22 January 2014), MEMO/14/42, p. 2.

¹⁷ Impact Assessment, pp. 44 ss; Cohen, note 7, pp. 67–83.

¹⁸ Impact Assessment, p. 34. Countries such as Poland consider their shale gas reserves as a means for emancipating their markets from gas imports from Russia and for effectively addressing energy security issues. See C. Johnson, T. Boersma, 'Energy in(secure)ty in Poland: the case of shale gas', (2013) 53 *Energy Policy* 389, at 394–397.

¹⁹ Memo, p. 2.

²⁰ Report, point 3.1, p. 4.

In other words, the commission preferred to adopt a non-binding instrument rather than delay a decision on a pressing issue or fail to adopt any instrument at all. Furthermore, a non-binding instrument, such as the shale gas recommendation, may serve to prepare the ground for the adoption of a binding instrument in the future. And in all events, a non-binding instrument has certain effects (e.g., the UK's uptake of the recommendation) that may suggest 'best practices' and provide a signal to the industry about the direction of travel, thereby triggering a self-reinforcing process.

9.3 LOW-CARBON POLICIES IN THE UNITED STATES

Political conditions can also affect the legal design of the instrument by which energy policies can be implemented. This is well illustrated by the case of the United States. As was widely reported at the time, the efforts of the Obama administration to adopt climate legislation at the national level (the 'Clean Energy and Security Act' or 'Waxman-Markey Bill') could not overcome Republican opposition in the US Senate. The shadow of such opposition (which a decade earlier had equally blocked the ratification of the Kyoto Protocol) also affected the strategy of the United States in international climate negotiations leading to the Paris Agreement.²¹ Legal design was a particularly important aspect on both the domestic and the international fronts, and the two are closely related.

The adoption of the Paris Agreement rested upon a prior understanding between the world's two main emitters of greenhouse gases, namely, China and the United States. In order to reorient the domestic energy production trajectory, the Obama administration sought to tackle emissions from power plants by way of regulation, namely the Clean Power Plan (CPP) of 2015.²² The CPP was a way of overcoming domestic opposition through the selection of a specific legal form as well as of providing a credible basis for an international agreement. However, the choice of a specific legal instrument has implications for the viability of the energy policy it is designed to pursue. In the absence of nationwide legislation on climate change,²³ the administration turned to another avenue, a legal enabler, the decades-old Clean Air Act (CAA), which authorises regulations to fight air pollution.²⁴ By interpreting the concept of 'air pollutants' in the CAA to include carbon dioxide,²⁵ it became legally possible to adopt the CPP under the CAA. What to a non-lawyer may look like a hardly noticeable difference in legal form is, in practice, very important for the

²¹ The Paris Agreement was adopted, as an Annex to Decision 1/CP.21, on 12 December 2015. For further information on the agreement, see http://unfccc.int/paris_agreement/items/9485.php.

²² EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (October 23, 2015).

²³ This discussion relies on J. E. Viñuales, 'Law and the Anthropocene' (2016) *C-EENRG/Collège de France Joint Working Paper Series* 2016–4.

²⁴ CAA, 42 U.S.C. §7401 et seq. (1970).

²⁵ *Massachusetts v. EPA* 549 US 497 (2007).

possibility of overcoming political opposition, as well as for the prospects of the CPP. This became manifest when in early February 2016 the US Supreme Court suspended the implementation of the CPP following legal action from a group of adversely affected parties.²⁶

The legal strategy followed by the Obama administration at the domestic level also influenced the legal strategy that was pursued in international climate negotiations. To appreciate the importance of legal form, it is useful to refer to a detail that made newspaper headlines suggesting that a mere word (namely the use of ‘shall’ instead of ‘should’ in Article 4(4) of the draft Paris Agreement) could have derailed the entire negotiation. In its final formulation, the first sentence of Article 4(4) states that ‘developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets’.²⁷ Given the absence of economy-wide climate legislation – a consequence of the failure of the Waxman-Markey Bill to pass the US Senate – accepting the verb ‘shall’ in this provision would have meant that the United States was going beyond the scattered (hence, not economy-wide) legal authority provided by legislation such as the CAA. Moreover, going beyond such authority would have meant that the Paris Agreement would have contained emission-reduction obligations that were binding as a matter of international law but not of domestic law (e.g., under the sole authority of the CAA). Under Article 2, section II of the US Constitution, that would have made the Paris Agreement a ‘Treaty’ (rather than an ‘executive agreement’) that required the approval of the Republican-dominated Senate.

It is for this reason that what appears to be a mere word had deep legal and political roots. Secretary of State John Kerry – who led the negotiations on behalf of the United States – expressly and successfully conditioned the support of the United States to the agreement as a whole on the use of the word ‘should’ instead of ‘shall’ in Article 4(4).²⁸ The use of the word ‘should’ allowed Kerry to maintain that the Paris Agreement ‘doesn’t need to be approved by the Congress because it doesn’t have mandatory targets for reduction, and it doesn’t have an enforcement compliance mechanism’.²⁹ A similar point can be made in connection with Article 15 of the Paris Agreement, which, unlike the Kyoto Protocol, does not provide for a compliance mechanism with an enforcement dimension.³⁰

Furthermore, legal design was also used to lock in, at least to some extent, the climate policies adopted during President Obama’s second term. Articles 28(1) and 28(2) of the Paris Agreement serve this purpose.³¹ They provide that State Parties may

²⁶ Order in pending case, *West Virginia et al. v. EPA et al.* (February 9, 2016), 577 U.S. 15A773.

²⁷ Paris Agreement, Article 4(4).

²⁸ J.E. Viñuales, ‘The Paris Agreement on Climate Change: Less is More’, (2017) 59 *German Yearbook of International Law*, 11.

²⁹ Quoted in D. Wirth, ‘Cracking the American Climate Negotiators’ Hidden Code: United States Law and the Paris Agreement’ (2016) 6 *Climate Law* 152, at 168.

³⁰ Paris Agreement, Article 15.

³¹ Paris Agreement, Articles 28(1) and 28(2).

withdraw in writing from the agreement only after three years from the date of its entry into force and that such withdrawal takes effect upon expiry of at least one year from the date the depositary receives the notification of withdrawal.³² This means that the agreement is, from a legal standpoint, immune from any repudiation for at least four years, which is, not coincidentally, the duration of a first-term US President. The relevance of this clause can be seen in the announcement of President Trump in June 2017 that the United States would withdraw from the Paris Agreement.³³ That modicum of legal resistance may suffice, together with the wealth of scientific and socio-economic indications encouraging the transition towards a low-carbon economy, for the private sector to refrain from making investment decisions on the mere basis of a presidential announcement, even if eventually the withdrawal were to take effect.

9.4 RENEWABLE ENERGY SUPPORT IN INDIA

A third case study illustrates the constraints imposed on energy policies by legal regimes with other objectives, such as the regimes governing international trade and investment. These regimes essentially require government policies to follow due process standards, to be proportionate to the goal being pursued and to be non-discriminatory as between foreign and domestic producers and investors. Energy policies that do not meet these conditions can be challenged before an international trade or investment tribunal.

How this works in practice can be seen in the example of a subsidies scheme introduced by India to support the production of renewable energy (solar) equipment.³⁴ The key point in this case is that India limited its support to domestic producers. Indeed, the Indian renewable energy support scheme (the National Solar Mission adopted as part of India's National Action Plan on Climate Change) included local content ('buy local') requirements (LCRs).³⁵ This meant that a producer of electricity from renewable sources had to purchase equipment from Indian manufacturers in order to participate in the government electricity purchase programme.³⁶ India introduced LCRs to support its renewable energy equipment

³² Paris Agreement, Articles 28(1) and 28(2).

³³ See 'Trump Will Withdraw U.S. from Paris Climate Agreement', *New York Times*, 1 June 2017, available at www.nytimes.com/2017/06/01/climate/trump-paris-climate-agreement.html.

³⁴ This example draws upon the discussion on the function of law in promoting or hindering the transition towards sustainable energy systems carried out by Viñuales in 'Law and the Anthropocene', note 25, pp. 55–56.

³⁵ The text of the Jawaharlal Nehru National Solar Mission (hereinafter National Solar Mission) launched on 11 January 2010 is available at www.mnre.gov.in/file-manager/UserFiles/mission_document_JNNSM.pdf.

³⁶ National Solar Mission, point 6, pp. 7–10.

industry as well as to garner political support for the introduction of a feed-in-tariff scheme. Many other countries have introduced LCRs for the same reasons.³⁷

The difficulty, however, is that LCRs are, as a rule, illegal under international trade disciplines. Indeed, following legal action from the United States and others, a WTO trade panel found India in breach of its international trade obligations.³⁸ Underlying this ruling – and the trade rules on which it is based – is the idea that trade must be liberalised to promote efficiency, based on the principle of comparative advantage. If a foreign producer of solar energy equipment abroad is more efficient (it produces and sells at a lower price) than an Indian producer, then its advantage must not be neutralised by governmental interference (protectionism). The policy question that arises is whether this imperative – justifiable from the perspective of international economics – should override other concerns, including energy security (by diversifying energy sources and strengthening the local energy industry), environmental protection (by reducing emissions) and inclusiveness (by creating work and supporting nascent industries).

But even if the introduction of LCRs in an energy policy is vulnerable to legal challenge in the long term, in the short term it can encourage local industry to do its utmost to adjust to new conditions. It is worth noting that, under international trade law, the damage caused by an unlawful policy is not compensated. The obligation of a state in breach is only to bring its laws back into compliance with trade disciplines. Therefore, states and their industries may consider the time it will take for a challenge to be brought and the duration of the procedure as breathing space for a domestic industry to be supported. The nature of the legal regime for enforcing constraints on climate-friendly energy policies is therefore another relevant piece in the regulatory puzzle.

9.5 LEGAL ASPECTS OF ‘GOOD’ ENERGY POLICY

The illustrations provided in this chapter demonstrate the relevance of legal form in promoting or hindering energy policies. The final and broader question that needs to be addressed is how legal analysis may contribute to ‘good’ energy policy. The basic answer is that energy policies have a higher chance of being introduced (overcoming certain political constraints) and being effective (harnessing socio-economic buy-in) if they are enshrined in a legal form that is both adaptive to existing political conditions and resilient to future legal challenges or amendments.

³⁷ See J.-C. Kuntze and T. Moerenhout, ‘Local Content Requirements and the Renewable Energy Industry: A Good Match?’, *ICTSD Study* (May 2013).

³⁸ *India – Certain Measures Relating to Solar Cells and Solar Modules, Report of the Panel*, 24 April 2016, WT/DS456/R. This decision was subsequently confirmed by the WTO Appellate Body, *India – Certain Measures Relating to Solar Cells and Solar Modules*, AB Report (16 September 2016), WT/DS456/AB/R.

Different legal forms can be used for different purposes and within specifically defined legal, economic and political constraints. The non-binding recommendation used at the EU level to govern fracking is flexible enough to accommodate different national circumstances and, at the same time, it enjoys some level of effectiveness. The complex legal strategy followed by the Obama administration both to overcome domestic opposition and to command sufficient credibility in international climate negotiations relied on the specific legal nature of ‘regulations’ under previously reinterpreted legislation (the CAA) as well as on the technical difference between a ‘treaty’ and an ‘executive agreement’. Although not developed in this chapter, similar considerations of design can be used to make LCRs more difficult to challenge under international trade law.

However, adaptability has a price, particularly in terms of resilience to subsequent legal changes. In some cases, the legal form selected may promote such resilience, as suggested by the withdrawal provisions of the Paris Agreement. But this is not always the case, as can be seen in the challenge against the CPP in the US Supreme Court, and the challenge to India’s LCRs. But even then, a short-term gain can override a long-term loss, whether politically or strategically (if an infant industry is thereby given the time to become internationally competitive).

The purpose of these remarks is not to take a stance on the desirability of specific energy policies. It is simply, and more fundamentally, to show that the legal form of energy policies as well as the analysis of this form are important considerations in designing ‘good’ energy policy.

