

ENERGY LAW AND ENERGY TRANSFORMATION

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Abstract

This chapter argues that the energy transition needs to be reimagined as an energy transformation in order to emphasise the scale and pace of change required to meet climate, security, and equity objectives in a timely manner. Drawing on Karl Polanyi's *Great Transformation*, it highlights the extent to which the current situation may be read as the inevitable working out of the process by which the market becomes dis-embedded from society. Understanding the required energy transformation in that way, it concludes by suggesting questions that could guide energy law in the years ahead: (1) to what extent has energy law in the past promoted and facilitated the dis-embedding of economy from society, and the commoditisation of the environment? (2) how can we reimagine energy law to assist in re-embedding economy in society, and in recognising the dangers of allowing the environment to become a fictitious commodity?

1 Introduction

The North Sea Energy Law Programme,² which brings together the universities of Groningen, Copenhagen, Oslo and Aberdeen to deliver an Advanced LLM in Energy Law for

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² <https://nsepl.eu/>

students who already have some experience of energy law practice, exists in no small measure because of the vision and drive of Martha Roggenkamp. Developing a joint master's programme that must accommodate the particularities of four jurisdictions and meet EU requirements demanded skill and determination, and I do not think any of us involved would dispute that without Martha's abilities in these regards we would have fallen at one of the many hurdles along the way. More than a decade later the programme is well established, has produced several cohorts of excellent graduates and has transformed the experience of energy law of all of those who have studied and taught on it. In many respects, this is a metaphor for Martha's contribution to energy law throughout her long and rich career. She has been a key figure in the transformation of the discipline from something that struggled for independent existence to something that is now a major focus of legal scholarship and practice. In turn, that transformation is itself a metaphor for the context in which we as energy lawyers will operate in the coming years.

2 From Energy Transition to Energy Transformation

It has become commonplace to speak of 'energy transition.' When we hear these words, they usually imply the idea of the shift from traditional sources of energy – especially fossil fuels – to those which do not involve the emission of carbon dioxide – and indeed other greenhouse gases. One would like to be able to say that the need for such a shift is now beyond question, but the means by which it will be achieved raise many questions with legal significance. In the first half of 2021, the IEA's pronouncements that no new investment in oil and gas should take place,³ the ruling of the Dutch court in *Vereniging Milieudefensie v Royal Dutch Shell PLC*,⁴ and the success of activist investors in placing at least two nominees on the board of Exxon⁵ have been widely discussed even in the mainstream media.⁶ Not all actions, however, point in the same direction. Russia's ambitions to develop further the hydrocarbon resources of the Arctic⁷ and the completion of

3 International Energy Agency, *Net Zero by 2050: a Roadmap for the Global Energy Sector*, May 2021; available online at: <https://www.iea.org/reports/net-zero-by-2050>

4 C/09/571932 / HA ZA 19-379 (English version); available online at: <http://climatecasechart.com/climate-change-litigation/non-us-case/milieudefensie-et-al-v-royal-dutch-shell-plc/>

5 Details of the board are available online at: <https://corporate.exxonmobil.com/About-us/Who-we-are/Corporate-governance/ExxonMobil-board-of-directors#>

6 Opinion, "A turning point for Big Oil", *Financial Times*, 28 May 2021; <https://www.ft.com/content/67ad6163-da6b-4671-95a5-fe85a307d9do>

7 Maria Morgunova, "Why is exploitation of Arctic offshore oil and natural gas resources ongoing? A multilevel perspective on the cases of Norway and Russia", *Polar Journal*, Vol 10 (1), pp64-81.

the Nordstream 2 pipeline⁸ will test the reality of the European Green Deal and the accompanying Regulation.⁹

It may be the case, then, that one of the challenges we face in communicating the need for such a shift in our approach to energy emerges from the terminology itself. Transition, after all, merely conveys the idea of *change* or *passage* from one stage or state to another; it says nothing about the *pace* of change or the *duration* of the passage or indeed the *nature* of the new state compared to the old one. It is perhaps for that reason that IRENA (the International Renewable Energy Agency) has in recent years begun to speak instead of ‘energy transformation’.¹⁰ In contrast to transition, transformation conveys more of a sense of urgency insofar as it is defined as a change or alteration, especially a *radical* one.¹¹

Does this matter? Well, as anyone who has looked at IRENA’s projections will know, the situation is a sobering one. The target for CO₂ emissions is designed to reduce the increase in global temperature by 2050 to well below 2°C above pre-industrial levels. On our current trajectory, we are on track to see an increase in excess of 3°C. Even if governments did everything by way of mitigation that they are currently doing and are planning to do, we are still on track for an increase in excess of 2.6°C.¹²

For that reason, IRENA has set out a considerably more ambitious set of proposals that would greatly increase the probability of reaching the desired target. The gap between where we are headed and where we need to be is, however, daunting. For that reason, it seems to me that we need to get into the habit of speaking of the more radical energy *transformation* rather than the gentler energy *transition*. But even that shift, while it conveys the necessary sense of urgency and the fundamental nature of the change,

8 <https://www.nord-stream2.com/media-info/news-events/second-nord-stream-2-string-filled-with-technical-gas-156/>

9 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (‘European Climate Law’); <https://eur-lex.europa.eu/eli/reg/2021/1119/oj>.

10 IRENA, Global Energy Transformation: A Roadmap to 2050, 2019 edition, <https://www.irena.org/publications/2019/Apr/Global-energy-transformation-A-roadmap-to-2050-2019Edition>

11 It is, of course, the case that there is increasing recognition of the need to speak of *transitions*, rather than just *a* transition, in order to “capture the complexity” of the changes under way; see, for example, <https://www.iea.org/topics/energy-transitions>. There may similarly be an argument to speak of *transformations* rather than just a transformation, but this chapter is focused for the present on the overall movement rather than individual indicators.

12 Source: IRENA, Global Energy Transformation: A Roadmap to 2050, 2019 edition.

requires further specification. Are we speaking of a *clean* energy transformation?¹³ Or a *just* energy transformation?¹⁴ Or a *secure* energy transformation?¹⁵ We are, of course, speaking of all three simultaneously.¹⁶ If we could burn hydrocarbons without any other consideration, our energy security concerns would be very far in the future indeed, as we now have access to quantities previously unimagined in the form of methane hydrates.¹⁷ If it was only a case of using clean energy, we could ban fossil fuels tomorrow. If we wanted to give everyone on the planet access to energy, the sums spent on mitigating the global financial crisis (to say nothing of the Covid19 pandemic) would dwarf the amount of money that would be required.¹⁸ It is the fact that we want to do all of these things simultaneously, in a world where international cooperation appears to be in reverse, that makes this the greatest challenge we have ever faced.

3 The Great Transformation – then...

And this is why I want to change tack somewhat now and look in a little more detail at the idea of *transformation*. I recall in the aftermath of the global financial crisis of 2008 that there was a crisis of confidence in capitalism and a renewed interest in the classic critiques of capitalism. An unexpectedly wide range of politicians were dusting off their

13 For example, Washington state's Clean Energy Transition Act 2019, <https://www.commerce.wa.gov/growing-the-economy/energy/ceta/>

14 For example, the Scottish Government's Just Transition Commission, <https://www.gov.scot/groups/just-transition-commission/>

15 For example, the Irish Government's controversial use of a "money message" to block progress of the Climate Emergency Bill on the grounds, inter alia, that it would leave the country dependent on imported oil, <https://www.irishtimes.com/news/politics/fine-gael-accused-of-greenwashing-as-climate-emergency-bill-killed-off-1.3947046>

16 A fact reflected in the move by some to speak in terms of overall goals rather than individual transitions. See for example, Ruven Fleming, Kaisa Huhta and Leonie Reins, "What is Sustainable Energy Democracy in Law?", in Fleming, Huhta and Reins (eds) *Sustainable Energy Democracy and the Law* (Brill 2021), pp3-27, <https://brill.com/view/title/60361?language=en>

17 Roy Partain and Constantinos Yialourides, "Hydrate occurrence in Europe: Risks, rewards and legal frameworks", 2020, *Marine Policy*, vol. 121, 104122.

18 The International Energy Agency suggested in late 2019 that full access to electricity by 2030 would require investment of \$40 billion per year for a decade, <https://www.iea.org/reports/sdg7-data-and-projections/access-to-electricity#abstract> The global financial crisis is estimated to have cost the US Government alone some \$23 trillion, <https://oecdecoscope.blog/2018/12/07/the-output-cost-of-the-global-financial-crisis-2/>

copies of Marx's *Capital* and wondering whether he hadn't been right after all.¹⁹ It's certainly the case that Marx has some rather prescient things to say about banking and finance,²⁰ but a decade later it's not obvious that those flirtations with radical socialism have had much of an impact.

Instead, what *have* we seen during the last decade? An increase in nationalism. The success of populist politicians all across the globe. A falling out of love with international and regional cooperative arrangements.²¹

This is a list that calls to mind not Karl Marx, but rather the analysis of Karl Polanyi. His book, *The Great Transformation*, written in 1944, was the other text that was especially referred to in the aftermath of the global financial crisis of 2008.²² The reason for that interest was that Polanyi had produced a succinct, readable, and compelling account of the progress and pitfalls of global capitalism that seemed to resonate especially at that time.

The reason that I'm referring to this book again in 2021 in the context of this collection, which is, of course, focused on energy law, is because it seems to me that it is more relevant now than ever. It may well tell us as energy lawyers something quite profound about the world we will inhabit in the coming decades, a world which we will play an important role in shaping, but which will equally shape – and increasingly perhaps constrain – the options that are open to us.

The great transformation that mainly preoccupies Polanyi is the shift from a position where the market is peripheral to and indeed supportive of social relations to one where it is central and potentially destructive of those same relations. In other words, he is seeking to explain the emergence of the European liberal state.

When Polanyi was writing his seminal work in 1944, he also needed to explain a second great transformation: the rise of fascism. For him, this was the result of the inevitable failure of the dominance of markets over society. When that dominance becomes so destructive, it appears that people can be seduced by ways of protecting themselves that can impose unimaginable costs on others.

19 See, for example, Jack Rasmus, *The Deepening Global Financial Crisis: From Marx to Minsky and Beyond*, 2008 Critique 36:1, 5-29

20 See especially, *Capital*, Vol 3.

21 There are unfortunately many accounts to choose from. Some examples include: David Frum, *Trumpocracy: The Corruption of the American Republic*, New York, Harper, 2018; Stephen D. King, *Grave New World: The End of Globalization and the Return of History*, New Haven and London, Yale University Press, 2018; James Kirchick, *The End of Europe: Dictators, Demagogues and the Coming Dark Age*, New Haven and London, Yale University Press, 2017.

22 Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time*, Boston: Beacon Press, 2001.

There is little room here to do justice to the subtlety of Polanyi's analysis, but we can usefully consider one of the key factors he identifies in the emergence of the liberal state – namely the process of industrialisation. The fact that industrialisation requires significant capital means that investments will not be made unless everything required for profitable operations is available. Everything so required thus becomes a factor of production: including land, labour and money.²³ These are accordingly commoditised but are described by Polanyi as *fictitious commodities* because they do not fit the usual category of things that have been produced with a view to trade.²⁴ With both humankind and the environment now commoditised, there is nothing in principle to stop these being pushed to the brink of destruction in the relentless drive to feed the demands of industrialisation.

Confronting this terrible reality, Polanyi is convinced that society will ultimately always push back against the dangerous progress of the market in order to avoid such destructive effects. Significantly, this resistance is not with a view to overthrowing the market, but rather to returning it to a position where it supports social relations rather than exploiting them.²⁵ To put this in other words, while for Polanyi the market in pre-industrial times had always been an adjunct to society (with economic relations being characterised in the main by reciprocity, redistribution and householding),²⁶ in the context of industrialisation, the relationship is reversed, and society becomes an adjunct to the market.²⁷

While the market thus seeks to dis-embed itself from society, it never actually succeeds in this endeavour. This is because the market always relies to some extent upon society. Nevertheless, insofar as it seeks to assume a central role, the market has destructive effects on the fictitious commodities that it creates. In these circumstances, society will try to protect itself by re-embedding the market in society – in the context of energy markets, one could read protection for vulnerable customers and arrangements for a supplier of last resort in this light, or indeed of the increasing importance of the concept of energy communities.²⁸ Such moves would ideally be under democratic control, but in

23 Ibid. pp42-44.

24 Ibid. p75.

25 Ibid. pp71ff.

26 Ibid. p56.

27 Ibid. p60.

28 See, for example, the Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the internal markets for renewable and natural gases and for hydrogen (recast) COM/2021/804 final; and Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on common rules for the internal markets in renewable and natural gases and in hydrogen COM/2021/803 final; https://ec.europa.eu/commission/presscorner/detail/en/IP_21_6682

extremis, when the conditions are right, it is possible that more radical protective moves become attractive – and this includes nationalist, populist – indeed fascist – solutions.²⁹

The global financial crisis called for radical interventions from governments and central banks to protect the economy from complete collapse – with all that that would have meant for society more generally. But the precise interventions, while undoubtedly preventing precipitous falls, have themselves increasingly come to be seen as contributing to inequality. In other words, instead of the rebalancing of economy and society in the aftermath of the 2008 crisis that Polanyi's supporters hoped for, there was if anything a further dis-embedding of the economy from society, a further confirmation of the extent to which society is an adjunct to the economy.³⁰

In short, the conditions were created that make it easy to persuade people of the attractions of nationalism, populism, even fascism. If this sounds apocalyptic, then it wasn't meant to. At least not yet. And that's because I think the bigger problem is yet to emerge.

4 ...and now

If we, with the benefit of Polanyi's crystal-clear lenses, can now see the global financial crisis and its aftermath as a classic example of the dis-embedding of the economy from society, then surely the climate emergency we now face is nothing more and nothing less than the *ultimate* working out of the logic of industrialisation that Polanyi identified.

In the same way that the unchained market destroys social relations, so it destroys the environment. (Polanyi did not have this in view when he was writing to the extent that we have today, but his analysis is all the more prescient as a consequence.) And if society has choices as to how it responds – even if it sometimes makes self-destructive choices – the environment's response is not a matter of choice, but of science.

Now, the enthusiasm for Polanyi a decade ago was in no small measure due to the fact that in 1944 he himself was optimistic about the future and about another great transformation. Once humankind had seen clearly the folly of totalitarian responses to the destructive tendencies of the unrestrained economy, the post-war years would see a more appropriate rebalancing of society and economy.

²⁹ Ibid. pp245ff.

³⁰ It is with regret that I report that my fears at the time in this regard have been realised. See John Paterson, A systems theory perspective on Karl Polanyi's Great Transformation: the case of financial derivative contracts, 2013, 62, *Studies in Politics, Law and Society*, 49-71.

And there were surely many indications that his optimism at that time was justified. Whether we point to the emergence of global and regional institutions designed to protect rights and promote progress, or domestic advances in relation to health, welfare and education, it was clear that at least some lessons had been learned.

But in many respects these examples of rebalancing masked the relentless dis-embedding dynamic of the economy, the commoditisation of ever more aspects of the environment, humanity – even money itself – to the point where we first experienced near financial catastrophe and now face a climate catastrophe.

So, the question is: are we finally on the cusp of the great transformation that Karl Polanyi looked forward to in 1944?

5 Conclusion

It is now nothing short of a great transformation that we need. And as energy lawyers that is the context in which we will all work in the coming decades. We are essentially called upon to play our role in a radical energy transformation. And we can now clearly see the scale and scope of that necessary transformation. Energy law has famously been subject over recent decades to the sort of specialisation that characterises so many branches of law. So advanced is that process that lawyers working in different areas of energy law may have only limited understanding of what their colleagues are doing. But the scale and scope of the necessary energy transformation is such that it touches areas of law well beyond the usual confines of renewables, nuclear, and oil and gas. International law, constitutional law, administrative law, tax law, planning law, welfare law, housing law,..., the list goes on and on. All of these are – or need now quickly to become – deeply implicated in the energy transformation. And that's also because everything really depends upon the success of the energy transformation. If we don't achieve it, then the challenges we have faced so far this century, whether in finance or with Covid, will look like a little local difficulty.

Martha Roggenkamp has been a pioneer in the development of energy law, and it falls to her successors to continue that development in a context that is ever more challenging. If we take the foregoing analysis seriously, then we are *all*, in one way or another, energy lawyers now. Drawing on Polanyi's insights, the questions that must guide us are: (1) to what extent has energy law in the past promoted and facilitated the dis-embedding of economy from society, and the commoditisation of the environment? (2) how can we reimagine energy law to assist in re-embedding economy in society, and in recognising the dangers of allowing the environment to become a fictitious commodity? These are the sorts of issues that future cohorts on the North Sea Energy Law Programme will discuss and take forward into future energy law practice.